China Energy Databook

User Guide and Documentation

Access 2003 Standalone Version

Version 7.0

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China Energy Databook 7.0

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Foreword to the Seventh Edition

Since 2001, China's energy consumption has grown more quickly than expected by Chinese or international observers. This edition of the *China Energy Databook* traces the growth of the energy system through 2006. As with version six, the *Databook* covers a wide range of energy-related information, including resources and reserves, production, consumption, investment, equipment, prices, trade, environment, economy, and demographic data. These data provide an extensive quantitative foundation for understanding China's growing energy system.

In addition to providing updated data through 2006, version seven includes revised energy and GDP data back to the 1990s. In the 2005 *China Energy Statistical Yearbook*, China's National Bureau of Statistics (NBS) published revised energy production, consumption, and usage data covering the years 1998 to 2003. Most of these revisions related to coal production and consumption, though natural gas data were also adjusted. In order to accommodate underestimated service sector growth, the NBS also released revised GDP data in 2005. Beyond the inclusion of historical revisions in the seventh edition, no attempt has been made to rectify known or suspected issues in the official data. The purpose of this volume is to provide a common basis for understanding China's energy system.

In order to broaden understanding of China's energy system, the *Databook* includes information from industry yearbooks, periodicals, and government websites in addition to data published by NBS. Rather than discarding discontinued data series, information that is no longer possible to update has been placed in "C section" tables and figures in each chapter. As with previous versions, the data are presented in digital database and tabular formats. The compilation of updated data is the result of tireless work by Lu Hongyou and Nina Zheng.

The *China Energy Databook v.7.0* owes its existence to the support of the Dow Chemical Company. We are grateful for Dow's support and patience.

Finally, we would like to thank our many colleagues here at LBNL and in China who have, over the years, collaborated on and contributed to various editions of the *Databook*, as well as the many users who have continued to offer comments, corrections, and advice.

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October 2008

Foreword to the Sixth Edition

As this version of the *China Energy Databook* is released, China's role in the global energy system is receiving a great deal of attention around the world. China recently surpassed Japan to become the second-largest consumer of oil, and its demand for oil is anticipated to rise significantly, drawing attention to its growing impact on international oil markets. Its national policy calls for expanding supplies of imported natural gas, a strategy that has raised concerns about apparent competition with other consumers. Ambitious plans for exploiting China's extensive hydropower resources have intensified calls to mitigate environmental and social costs, as well as impacts to countries downstream. Intensifying regional and global attention to the impacts of fossil fuel use have kept China, already the world's second-largest energy user, in the spotlight.

If anything, this *Databook* is more relevant today than when it was first published over ten years ago. The amount and variety of statistical materials pertaining to China's energy system that have been publicly released in China continue to increase, and as new categories of information are published others are discontinued. Provincial energy balances have been published, providing an important view of changes in demand and supply in China's widely divergent regions. While a great deal of information is available in widely circulated bilingual (Chinese and English) sources like the National Bureau of Statistics' *China Statistical Yearbook*, much of it is only published in Chinese and not easily obtained outside the country. Sometimes the form of published data make them difficult to use, and often statistical categories are unclear.

As with past editions, this volume represents an attempt to bring together important, publicly available statistical information and present it in a clear and consistent format to an international audience that is keen to understand how China has reached its current state. In addition to bringing hard-to-find information to a wider audience, the electronic database that has been built from national and provincial energy balances puts over 95,000 data points into a form that allows users with some facility with Excel to quickly perform a wide variety of analytic tasks.

No attempt has been made to rectify known or suspected issues in official data; there are no alternate systems that collect statistical information in parallel to those already in place in China. While adjustments based on careful analysis are often needed in order to come to informed judgments, it is not the aim of this publication to second-guess China's sources of statistical information. Rather, we aim to provide a common basis on which interested parties can form their own views. We hope that wider understanding of the issues in existing statistics will give rise to greater support for improving collection and compilation of energy data in China and elsewhere.

We would like to thank our many colleagues here at LBNL and in China who have, over the years, collaborated on and contributed to various editions of the *Databook*, as well as the many users who have continued to offer comments, corrections, and advice.

Jonathan Sinton and David Fridley

16 June 2004

Foreword to the Fifth Edition

Like the first four editions of the *China Energy Databook*, this new electronic edition follows the original *Databook* approach of presenting analytically useful reports of energy use and related data from China. To date, Chinese publications—particularly the 1989, 1991, and 1991-1996 editions of the *China Energy Statistical Yearbook*—have been largely restricted to presentation of historical time series and energy balance tables, requiring substantial additional work to develop ‘cross views’ of China’s energy data. By combining the official energy data from China’s National Bureau of Statistics (formerly the State Statistical Bureau) and from multiple industrial, environmental, and other data sources into one publication, and by presenting these data in multiple views, the *Databook* facilitates their use for analysis and research. The electronic version provides a new capacity to ensure consistency of data entry over time, of data conversion, citation and sourcing, and of highlighting discrepancies in official data sources. Geared to both Chinese and non-Chinese users, the *Databook* is intended to be a basic application for reference and analysis.

Unlike the previous printed editions, this edition of the *Databook* has been completely revamped and organized into two main elements: the *China Energy Databook* database application and the *China Energy Databook* data tables. The database application, developed from scratch and now containing over 45,000 data values, provides robust database functions, queries, automatic conversions, data notations and full source citations by data value, and alternative data views, all encompassed within a user-friendly interface. The contents include national and provincial energy balances and detailed industrial energy consumption by sector, while the extracts provide the ‘cross views’ of these data based on those in the original *Databook*. The data tables, also based on the original *Databook*, have been completely updated, and new tables on pricing, transportation, and environment have been added. We emphasize that all data contained in the database and data tables are official Chinese data, and include only those that are currently publicly available. In a departure from the previous *Databook*, tables that provided interpretive adjustments to Chinese data, as well as the interpretive essays, have been omitted from this electronic version. As these updated analyses become available, they, and new ones, will be posted on the China Energy web page at <http://china.lbl.gov>.

Some functionality of the distribution versions of the database have been turned off to ensure the integrity of the data and to preserve the citability of the publication. The data and sources are read-only, and the queries cannot be modified, but the notation function remains enabled. Some users may have appropriate need for the full development version of the database application, and arrangements for limited distribution are being considered.

As in many undertakings of this magnitude and complexity, a number of unforeseen difficulties arose. Requiring that each data point be referenced and to allow notation added to the complexity of programming and debugging, but given the inconsistencies of even official Chinese data, this function was deemed a necessity. Attempting to match the original *Databook* in table formatting would have greatly increased the time and cost of creating database reports, so a simpler query approach was adopted. Conversion

to HTML format also highlighted the discrepancy between the cascading style sheet language generated by Excel and the browser display of this language using Netscape. Manual recoding was not possible, so problems with table and figure display in Netscape have not yet been solved. Nonetheless, providing native format files in addition to HTML and PDF should permit use on nearly any PC setup.

Even with the increased functionality of the *Databook*, we hope to be able to add new extensions and functions for the next version to increase its usefulness and accessibility. In addition to updating the data series, these new efforts include dynamic links between Excel and the database, including a charting module, expanding the data scope to include data by oil field, gas field and coal mine, and expansion of the *Databook* web site to include interactive features.

Creation of this new version of the *Databook* involved a tremendous effort by many committed and skilled people. Michael Simcich of Access Tools, who designed and programmed the database, was invaluable in translating our sometime unusual concept ideas into reality, consistently patient with our numerous requests and questions, meticulous in attention to detail, and in the end came to understand Chinese energy data better than most people. Bryan Lehman tackled the daunting task of entering over 45,000 data points, his eagle eye catching numerous errors and inconsistencies in the data series. Joanna Lewis managed the update, development, and formatting of over 300 Excel data tables, juggling a plethora of Chinese source materials, nearly all in Chinese. Zhou Fengqi and Li Ji of China's Energy Research Institute handled the assembly of over five years of new data and new source materials, and worked with the National Bureau of Statistics to provide explanations of unclear data or other data problems. We also value the assistance of Jean Ku and Lin Jieming, who worked on data compilation and entry. Mark Levine's continued support throughout this process is greatly appreciated.

The *China Energy Databook v. 5.0* owes its existence to the support of the China Sustainable Energy Program of the Energy Foundation, the Sustainable Energy Programme of the Shell Foundation, and the Office of Industrial Technology of the US Department of Energy. Our grateful thanks go out for the support and patience of these organizations.

Finally, we would like to express our gratitude to the many users of the previous versions of the *China Energy Databook* who have provided feedback and suggestions, enabling us to correct errors, identify new types of information to present, and improve the usefulness of this publication.

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1 Overview of Contents

The *China Energy Databook* (*Databook*) is composed of two major elements: a relational database in Access format containing full energy balances for China and the provinces, and a series of independent data tables in Excel format. Taken together, the update includes—and in some areas expands on—the range of information provided in the *Databook* of 2003 (sixth revised edition).

1.1 Relational Database

The relational database was built using Microsoft Access 2000 (compatible with Access 2003 and 2007) and is distributed only in its standalone version. Check the *ReadMe* file in the root folder of the distribution CD for important guidelines on installation and use.

The relational database contains three major components:

1. Full national energy balances for China from 1980 to 2006 (the latest year publicly released by the National Bureau of Statistics), and national industrial energy balances by detailed subsectors, from 1980 to 2006.
2. Full provincial energy balances for 1985, 1990, 1995-2006.

In addition, individual data series—primarily production data—have been extended to the latest available year, in most cases 2006.

1.2 Data Tables

Data not inherently relational or of complex formatting and reporting have been maintained in standalone tables developed in Microsoft Excel 2003 (XP). These files are downward-compatible with the Office 97 and 2000 versions of the program (Office 98 and 2001 on the Macintosh), and upward compatible with Office 2007.

The data tables have been grouped into chapters based on the nature of the data, such as energy production, consumption, investment, pricing, and other topics. Each chapter has been organized as an Excel workbook, and each data table appears as a titled and tabbed sheet within the workbook. The first tabbed sheet in each workbook contains a Table of Contents with hyperlinks to each individual table in the file.

Each chapter contains an “A” series and “B” series of tables, and some chapters contain a “C” series. The A series are pivot table extracts from the Access database, while the B series are standalone data tables. The C series contains datasets that are no longer updateable but have historical value. See section 4, Guide to the Data Tables for more details.

1.3 Chapter Contents

The *Databook* contains 10 chapters, paralleling the structure of the 1996 print version and the 2003 electronic version. The table numbers within each chapter are prefixed with the chapter number. The chapters are:

Chapter 1 Resources and Reserves
Chapter 2 Energy Production
Chapter 3 Energy Industry Investment
Chapter 4 Energy Consumption
Chapter 5 Energy Consuming Equipment and Activities
Chapter 6 Energy Prices
Chapter 7 Imports and Exports
Chapter 8 Energy and Environment
Chapter 9 International Comparisons
Chapter 10 Economic Indicators and Population

For a full listing of all tables, see the Table of Contents file.

1.4 Data Sources

The values used in the database are restricted to *unadjusted official numbers* from China's National Bureau of Statistics (<http://www.stats.gov.cn>). It is commonly understood that China's system of statistical classification varies in some degree from international norms. International comparisons and detailed analysis of the data do require making adjustments, but since these adjustments are inherently estimates, they have not been included. Adjusted data and other interpretations of the official data will be posted on the China Energy website at <http://china.lbl.gov> for downloading.

Data sources in the database are indicated by a blue pixel next to data points in the balance sheets. (Red pixels indicate explanatory annotations.) Clicking on any of the blue data points will bring up a box on the right side of the screen indicating the data source. These can be cross referenced to the bibliography in the Appendix to this document.

The data contained in the standalone data tables have been taken from a multitude of mostly official sources, including government agencies, corporations, environmental publications, international organizations, and several series of specialized statistical books published by the National Bureau of Statistics. Sources are noted below each data table and can be cross-referenced to the bibliography in the Appendix to this User Guide.

2 Installation

Please read the *ReadMe* file located in the root folder of the distribution CD for instructions about installation of the database and accessing the Excel and Adobe Acrobat PDF-formatted files included in this version.

3 Guide to the Database

3.1 Starting the Database

The database application is stored in two files: *ce.mdb* (containing the interface) and *cedata.mbd* (containing the data). These two files are stored in the same folder on the

CD and should be copied to the same folder on the hard drive. Please refer to the *ReadMe* file for instructions on copying the files and modifying the Read Only attributes.

To start the database, double-click the *ce.mdb* file in the folder where it was copied, or open the *ce.mdb* file from within the Access program. The opening screen appears as in Figure 1.

Figure 1: Database Opening Screen

Clicking on the buttons on the opening screen will lead you to the relevant area of the database:

Energy Balances: opens the form displaying the national and provincial energy balances.

Industry End-Use Consumption: opens the form displaying national industrial energy consumption by energy form and subsector.

Visit the China Energy website. Connects the user through the Internet to <http://china.lbl.gov>.

Exit App/Exit Access: closes the database interface/closes the database file and exits Access.

3.2 Energy Balances Form

Clicking on *Energy Balances* opens the screen shown in Figure 2, here shown with the selection of year and scope already made. The pull-down dialog boxes across the top of the screen prompt the user to select a year (1949-2003) and a scope (China, for national data, or a single province, for provincial balances).

The energy forms are grouped into Families to avoid having to scroll off the screen to view all energy forms. The Coal Family contains Raw Coal, Clean Coal, Washed Coal, and Coal Briquettes, with a column Total Coal summing the values across rows. The Coke Family includes Coke, Coke Oven Gas, Coal Gas not Coke Source, and Coke Other Products. The Petroleum Family includes Crude Oil, Gasoline, Kerosene, Diesel, and Fuel Oil, and a Total Petroleum column that sums these forms across rows along with LPG, Refinery Gas, and Other Petroleum of the Gas Family. The Gas Family also includes Natural Gas. The last Other & Total Family includes Heat, Electricity, Other Energy, and a Total Energy column that sums the MTCE values of all the preceding columns (excluding the other calculated total columns). ***The Total Energy summation calculation occurs automatically, so the value in the Total column should be used with caution for years where national or provincial balance data are incomplete.***

Figure 2: Energy Balance Form

Year: 2002 Scope: China Units: Physical Mtce							Return to Main
Energy Balance		Total Coal	Coal Raw	Coal Cleaned	Coal Washed	Coal Briquettes	Energy Consumption
Process	Mt	Mt	Mt	Mt	Mt	Mt	Coal Family
Total Primary Energy Supply	1,296.048	1,308.464	12.2879	-0.127	-0.001		Coal Family
Indigenous Production	1,380.000	1,380.000					Coke Family
Indigenous Production - Hydro P							Petroleum Family
Indigenous Production - Nuclear							Gas Family
Recovery of Energy							Other & Total
Interprovincial Imports							
Import	11.257	10.845	0.256	0.157	0.000		
Chinese Vessels Refueling Abroad							
Interprovincial Exports							
Export	-83.896	-70.540	-13.295	-0.052	-0.008		
Foreign Vessels Refueling in China							
Stock Change	-11.314	-11.841	0.752	-0.232	0.007		
Total Transformation	-939.131	-987.617	0.150	40.036	8.300		
Thermal Power	-656.000	-642.400	-1.673	-11.927			
Heating Supply	-74.737	-72.839	-0.039	-1.859			
Coal Washing	-17.175	-209.004	137.511	54.318			
Coking	-182.097	-51.778	-130.069	-0.250			
Petroleum Refineries							
Gas Works	-9.732	-4.007	-5.580	-0.145			
Gas Works - Coke input							
Briquettes	0.610	-7.590		-0.100	8.300		
Losses in Transformation							
Total Consumption	426.924	383.058	10.324	25.186	8.357		
Material Producing Sectors							
Agriculture	16.229	16.000		0.229			
Industry	302.822	278.009	10.250	14.500	0.064		
Heavy Industry							
Light Industry							
Industry - NonEnergy Use	8.896	8.656	0.130	0.110			
Construction	5.536	5.400	0.033	0.103			
Transportation, Telecommunicati	10.550	10.350	0.040	0.155	0.005		
Wholesale, Retail Trade, and Cat	8.091	7.900	0.001	0.100	0.090		
Non-Material Sectors							
Residential consumption	76.026	59.305		8.562	8.160		
Residential consumption - Urban	28.299	19.201		3.958	5.140		
Residential consumption - Rural	47.728	40.104		4.604	3.020		
Other	7.671	6.095		1.537	0.039		
Statistical Difference	-70.008	-62.211	-22.462	14.723	-0.058		

Note

Source

CESY 2002

3.2.1 Units

The *Units* buttons allow the user to select whether to view the data in original physical units (million metric tonnes, billion cubic meters, terawatt-hours, petajoules) or in standard energy units (million tonnes of coal equivalent, or Mtce). The conversion is automatically calculated based on preset conversion coefficients, shown in Appendix 2.

3.2.2 Notes

When the cursor is active in a data cell on the balance sheet screen, the *Notes* box to the right of the screen becomes active. Freestyle notes can be entered in the box titled *Notes* (see Figure 3), and clicking the Save button will link the note to the individual data point as selected by the cursor. When a note appears in a data cell, the upper right corner of the cell turns red, allowing quick visual identification.

Figure 3: Notes Location and Editing

The screenshot shows a data table with three columns and a notes panel on the right. The table has a blue background for the first column and a grey background for the others. The notes panel has a 'Note' field and a 'Save' button.

187.966		75.938
14.333		5.793
	2.492	18.937
0.124		62.754
		4.750
-3.712		-72.401
		-1.505
		6.398
877.713	-1.461	-33.035
877.713	-0.696	-16.065
	-0.321	-48.624

Notes Panel:

- Coal Family
- Petroleum Family
- Gas Family
- Misc
- Note: IP Nuclear totals from Guangdong and Zheijiang (only two provinces with nuclear) do not sum to total China nuclear
- Save

3.2.3 Sources

When the cursor is active in a data cell on the balance sheet screen, the *Source* box to the right of the screen also become active (Figure 4). The abbreviation appearing here can be cross-referenced to the full citation appearing in Appendix 3 (Bibliography). When a data point is linked to a source, the lower right corner of the cell turns blue, allowing quick visual identification.

Figure 4: Source Display

The screenshot shows a 'Source' box with a dropdown menu. The selected source is 'CESY 89, 91, 96'.

Source

CESY 89, 91, 96

3.3 Industry End-Use Consumption

Chinese statistics also include a detailed breakdown of industrial energy consumption by sector. This series exists only on a national level, and begins in 1980. Unfortunately, owing to revisions of China's GDP sector definitions in 1985 and 1990, discontinuities exist in the data series for some subsectors, involving either a breakdown of a larger subsector into more detailed subsectors post 1985, or a reclassification of different portions of a single subsector into multiple subsectors in later years. These changes for the most part cannot be easily mapped from old to new format, so no attempt has been made to adjust the figures used in the database.

As apparent in Figure 6, the structure of the data screens for Industry End-Use Consumption is similar to the Energy Balances form. Users select a year, then select China as scope (these data are not available for the provinces), and can choose which energy "family" to view.

Notes and source functions operate the same as in the Energy Balances and Energy Balance Viewpoints forms.

Figure 6: Industry Energy End Use Consumption Screen

Energy Consumption	Total Coal	Coal Raw	Coal Cleaned	Coal Washed	Coal Briquettes	Energy Consumption
Process	Mt	Mt	Mt	Mt	Mt	Coal Family
Industry Total	476.050	451.829	8.810	15.411		Coal Family
Mining and Quarrying	37.638	34.124	0.786	2.727		Coke Family
Coal Mining and Dressing	27.505	24.220	0.768	2.517		Petroleum Family
Petroleum and Natural Gas Extrac	2.449	2.443		0.006		Gas Family
Ferrous Metals Mining and Dressin	0.812	0.608	0.001	0.203		Other & Total
Nonferrous Metals Mining and Dre	1.405	1.401	0.004	0.000		Note
Nonmetal Mineral Mining and Dre	3.467	3.453	0.013	0.000		Save
Other Minerals Mining and Dressin	0.114	0.114		0.000		
Logging and Transport of Wood a	1.886	1.886	0.001	0.000		
Manufacturing	413.953	396.067	7.141	10.745		
Food, Beverage, and Tobacco Pr	34.120	32.590	0.679	0.851		
Textile Industry	20.127	20.002	0.086	0.039		
Garments and Other Fiber Produc	1.518	1.494	0.023			
Leather, Furs, Down and Related	1.086	1.085	0.001			
Timber Processing, Bamboo, Canv	2.999	2.997	0.001	0.001		
Furniture Manufacturing	0.585	0.285				
Papermaking and Paper Products	17.086	17.006	0.008	0.072		
Printing and Record Medium Repri	0.628	0.626	0.002			
Cultural, Educational and Sports A	0.378	0.365	0.000	0.012		
Petroleum Processing and Coking	7.023	5.525	0.838	0.661		
Raw Chemical Materials and Cher	86.044	85.324	0.544	0.175		
Medical and Pharmaceutical Prod	6.264	6.226	0.034	0.004		
Chemical Fiber	3.248	3.206	0.042	0.001		

3.4 Visit the China Energy Website

This link takes you to the LBNL China Energy website at <http://china.lbl.gov>, where updates and revisions to the database can be found, and other China energy data series are posted for downloading. The site also contains many PDF versions of recent publications related to Chinese energy.

3.5 Exit App

This button will exit the *China Energy Databook* application but leave the user in Access.

3.6 Exit Access

This button closes the *China Energy Databook* application and exits Access.

4 Guide to the Data Tables

The second major section of the *Databook* is the collection of about 300 data tables created in Microsoft Excel 2003 (XP). They are fully downward compatible with Excel 97 and 2000 (PC) or Excel 98 and 2001 (Mac), and upward compatible with Excel 2003 and 2007. These tables include both database extracts in pivot table format, as well as

standalone data tables that were developed outside the context of the database because their content was not inherently relational, or involved complex reporting formats.

The data tables are organized by chapter (see 1.3 Chapter Contents, p. 1 for a listing of chapters). Each chapter is in the form of an Excel workbook, and each data table appears as a titled and tabbed sheet within the workbook. The first tabbed sheet in each workbook contains a Table of Contents with hyperlinks to each individual table in the file.

Table numbering include an *A* series and a *B* series, and sometimes a *C* series. The pivot tables generated from data in the Access database are numbered as the *A* series, while the data tables are numbered as the *B* series. The *C* series contain data that can no longer be updated. Formatting differs between the series owing to constraints of the pivot table layout.

The data tables include detailed source information and explanatory notes at the bottom of each table. The source abbreviations can be cross-referenced in the Bibliography, included in the Appendix of this document. The pivot tables are drawn from the Access database and each number is linked to a source reference within the database itself.

The data tables can be opened directly in Excel (XLS format) or printed from a PDF file of each chapter.

4.1 Pivot Tables and Extracting Data from the Database

The 2001 version of the database contained about 100 database queries included both within the database application itself and as part of the Excel chapters. Because the 2004 version no longer supports a run-time version of the Access application, and in recognition that some users may not own the Access program, these queries have been converted to Excel pivot tables and are now provided only within the Excel spreadsheets themselves (Chapters 2 and 4). In addition, a single Excel table—national & provincial balance pivot table.xls—has been added to the XLS folder to facilitate viewing of the national and provincial energy balances.

For users unfamiliar with Excel’s pivot table functions, an example is provided below to demonstrate how to create your own data extracts from the database. The optional Data Query module of Excel must be installed to use this function. It is installed by default if you chose “Full Installation” when you installed the software.

4.1.1 Creating and Using Pivot Tables with the Access Database

Suppose you wanted to see data on natural gas consumption in the power sector by province in 2002. To start, open a blank Excel spreadsheet (the example here is based on the Excel 2003 interface). From the menu, choose Data, Import External Data, New Database Query (Figure 7: Creating a New Pivot Table Query).

When the box Choose Data Source appears, double-click on MS Access Database. You should also check the option box “Use Query Wizard”, as it will guide you in the following steps. You will then be presented with a file navigation box, from which you

browse to select the *cedata.mbd* file in the folder in which you stored it. Do not choose *ce.mdb*, since this is only an interface file for the database.

Once *cedata.mbd* is selected, the Query Wizard will prompt you to Choose Columns (fields). For queries of the energy balance table, click the + sign by the first table listed (tblEnergyBalance) to see all the fields. For queries of the Industrial Energy Consumption tables, click the + sign by the second table listed (tblEnergyConsumption) to see all the fields.

Figure 7: Creating a New Pivot Table Query

The Energy Balance table contains the following fields:

EBID: database ID number

EBYear: database years (1949-2003)

EBScopeType: database management field for Scope Names (ignore)

EBScopeName: list of geographical scope choices (i.e. China, and 31 province names)

EBScopeOIL: database management field (ignore)

EBMaterial: energy type (i.e. total coal, natural gas, coke oven gas, heat, etc.). For the full list, open the database to see them listed along the top of the page, arranged in 4 categories. They are also listed in full in the spreadsheet "national provincial balance pivot table.xls", included on the CD)

EBMaterialOIL: database management field (ignore)

EBUom: unit of measurement (i.e. Mt, bcm, PJ, Mtce)

EBPhase: the major balance subsections: Total Primary Energy Supply,

Transformation, Losses, Final Consumption (generally not needed)

EBProcess: the balance table processes (e.g. indigenous production, thermal power generation, refining, industry [consumption], etc.) For the full list, open the database to see them listed along the left side of the page. They are also listed in full in the spreadsheet “national provincial balance pivot table.xls”, included on the CD)

EBProcessOIL: database management field (ignore)

EBAmount: volume in original units of measurement

EBMtce: volume converted to million tonnes of coal equivalent

EBMtceVerify: database management field (ignore)

EBNote: database management field (ignore)

EBPEID: database management field (ignore)

Generally, most queries can be constructed using the columns selected as shown in Figure 8. To select the fields you want to use, highlight them on the left side and use the > button to move them to the right side.

Figure 8: Selecting Fields for the Pivot Table Query

Clicking Next then takes you to the Filter Data screen, which allows you to provide conditions on the data you want to extract (Figure 9). On the left side, select the field for which filtering is needed, then choose the filter function in the middle drop-down box (equals, greater than or equal to, etc.), then pull down the list of available filter results in the right-side drop-down list. For queries that have multiple conditions on a single field, you can add them sequentially below.

Since we are interested only in 2002, the Year filter is set to *equals 2002*. Bolding of the field in the field list indicates that a filter has been set for that field.

Since we are interested in thermal power production from natural gas in all provinces, the ScopeName field has not been filtered. You would choose *equals China* if you want only national figures. The Material field is filtered to *equals Natural Gas*. Finally, Process is filtered to *equals Thermal Power*.

Figure 9: Filtering Data in a Pivot Table Query

The next screen allows you to sort the results by one of the fields, in ascending or descending order. Queries based on year ranges are automatically sorted by year.

The last step asks you if you would like to return the data to Excel, view data or edit query in Microsoft Query, or create an OLAP cube from this query. To create a pivot table of the query, chose *return data to Excel*.

The next screen returns you to the spreadsheet and prompts you for the location of the query results. Because we want to create a pivot table, click *Create a Pivot Table Report*.

The next screen contains the Layout option, which is where the physical layout of the data in the pivot table is determined. Click this button and you will be taken to the Layout screen as shown in Figure 10.

Figure 10: Pivot Table Layout

As noted on the screen, you simply drag the fields you want to appear to the location you want them to appear on the layout. Here, Year has been put at top (it is filtered to 2002 only; if there were no filter, the table would return all years with data). ScopeName (China, all provinces with data) has been dragged to the Row section, and Amount has been dragged to the data area. Double-clicking on any of the fields will bring up additional options, such as changing the default "Sum" of the Amount to Min, Max, Count, Average or a number of other Excel functions.

The last step is to click “OK”. This will take you back to the Pivot Table Wizard, where you click “Finish” to return the results to the spreadsheet.

Your result should look like the table displayed in Figure 11. Right-clicking anywhere in the table will allow you to choose Options, where you can turn off the automatic summing of Grand Totals of rows and columns. It is best to turn these off if your scope includes both China (national total) and provinces, as the figures will be double-counted in the Grand Total.

Figure 11: Pivot Table Result

	A	B	C	D	E	F	G
1							
2	Drop Page Fields Here						
3							
4	Sum of EBAmount	EByear ▼					
5	EBScopeName ▼	2002	Grand Total				
6	China	-1.105	-1.105				
7	Gansu	-0.053	-0.053				
8	Heilongjiang	-0.256	-0.256				
9	Inner Mongolia	-0.002	-0.002				
10	Jilin	-0.002	-0.002				
11	Sichuan	-0.175	-0.175				
12	Tianjin	-0.055	-0.055				
13	Xinjiang	-0.233	-0.233				
14	Grand Total	-1.881	-1.881				
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
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36							
37							
38							
39							

PivotTable Options

Name: PivotTable1

Format options

☒ Grand totals for columns
 ☒ Grand totals for rows
 ☒ AutoFormat table
 ☐ Subtotal hidden page items
 ☐ Merge labels
 ☒ Preserve formatting
 ☒ Repeat item labels on each printed page
 ☐ Mark Totals with *

Page layout: Down, Then Over
 Fields per column: 0
 For error values, show:
 For empty cells, show:
 Set print titles

Data options

Data source options:

☒ Save data with table layout
 ☒ Enable drill to details
 ☐ Refresh on open
 Refresh every 60 minutes

External data options:

☒ Save password
 ☐ Background query
 ☐ Optimize memory

OK

Cancel

The resultant pivot table shows that 1.105 billion cubic meters of gas were reported consumed nationally in power generation in 2002 (power generation fuel source data are stored as negative numbers in the database). However, the sum of the provincial numbers is only 0.776 billion cubic meters. This kind of discrepancy is typical in comparisons of provincially reported figures and the national figure prepared in Beijing.

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To edit the layout of the query, right-click anywhere in the table, choose Wizard, and select the Layout button again. If you want to edit the field selection or filter selection, click Back on this screen, choose Get Data, and you will be returned to the field selection screen shown in Figure 8.

Pivot Table reports can be much more complex, and many useful functions (such as creating user-defined fields) have not been mentioned here. A good guide to Excel can help you learn more how to use them effectively.

In addition, the layouts of the pivot table reports included in Chapters 2 and 4, as well as the national provincial balance pivot table.xls, can be examined by following the step on editing layout noted above. This may give you ideas of how to structure other custom pivot tables of your own.

Unfortunately, pivot table queries “hardwire” the full pathname to the *cedata.mbd* database file. This means that the pivot tables provided in the *Databook* chapters cannot be edited at the field level, nor the data updated, without recreating the query based on the location of where you store the *cedata.mbd* file. This should be kept in mind if you share the database on a network and the location of the *cedata.mbd* file might change.

4.1.2 Tip on Creating Formulas Using Data in Pivot Tables

Pivot Tables appear, but do not act, as typical Excel tables. Performing further calculations on data within a pivot table requires attention to the differences. In the example shown in Figure 11, summing the consumption in Heilongjiang and Sichuan provinces would typically be done by creating a formula starting with a + or = sign, then pointing to the cell with Heilongjiang data, typing +, then pointing to the cell with the Sichuan data. In a typical Excel table, the results would appear as: =B8+B11. However, in a pivot table, the same process would result in:

```
=+GETPIVOTDATA("EBAmount",$A$4,"EYear",2002,"EBScopeName","Heilongjiang")+GETPIVOTDATA("EBAmount",$A$4,"EYear",2002,"EBScopeName","Sichuan"),
```

since the pivot table is actually only displaying the results of a query and does not contain the data itself.

To get around this problem, simply manually type the formula using the relative cell references. This formula can then be copied and the shift in relative cell reference will function properly.

5 Appendices

Appendix 1: Abbreviations

The following abbreviations include all those used in the database as well as the data tables. “Tonnes” refers to metric tonnes.

Abbreviation	Full Form
1/100 t-km	1/100 tonne-kilometers
1000 ha	thousand hectares
1000 km ²	thousand square kilometers
1000 m ²	thousand square meters
1000 m ³	thousand cubic meters
1000 units	thousand units
1990 yuan	1990 yuan
b 1980 yuan	billion 1980 yuan
b 1990 yuan	billion 1990 yuan
b constant 1980 yuan	billion constant 1980 yuan
b kWh	billion kWh
b passenger-km	billion passenger-kilometers
b t-km	billion tonne-km
b US\$	billion current US\$
b yuan	billion current yuan
bm ³	billion cubic meters
bm ³ /yr	billion cubic meters/year
Constant 1980 yuan	constant 1980 yuan
EJ	exajoule (10 ¹⁸ Joules)
gce/kWh	grams of coal equivalent/kilowatt-hour
GJ	gigajoule (10 ⁹ Joules)
GJ/case	gigajoules/case
GJ/million	gigajoules/million
GJ/t	gigajoules/tonne
Gt	gigatonnes
Gt-km	gigatonne-kilometers
GW	gigawatts
GWh (M kWh)	gigawatt-hours
hours	hours
households	households
Hp	horsepower
kb/d	thousand barrels/day
kg	kilogram
kg/cap	kilogram/capita
kg/t	kilogram/tonne
kg/yr	kilogram/year
kgce	kilogram of coal equivalent
kgce/1000 yuan	kilogram of coal equivalent/thousand current yuan
kgce/cap	kilogram of coal equivalent/capita
kgce/gross kWh	kilogram of coal equivalent/gross kilowatt-hour

Abbreviation	Full Form
kgce/kt-km	kilogram of coal equivalent/kilotonne-kilometers
kgce/net kWh	kilogram of coal equivalent/net kilowatt-hour
km	kilometer
km/hr	kilometer/hour
kt	kilotonne
kt/yr	kilotonne/year
kV	kilovolts
kW	kilowatt
kWh	kilowatt-hour
kWh/cap	kilowatt-hour/capita
kWh/case	kilowatt-hour/case
kWh/t	kilowatt-hour/tonne
kWh/t-km	kilowatt-hour/tonne-kilometer
l/100km	liters/hundred kilometers
M	millions (mega)
M households	million households
M persons	million persons
M tons	million short tons
M units	million units
M ²	square meter
m ³	cubic meter
M ³ /cap	cubic meter/capita
m ³ /t	cubic meter/tonne
MJ/kg	megajoule/kilogram
mm	millimeter
Mm ²	million square meters
Mm ³	million cubic meters
Mm ³ /day	million cubic meters/day
mpg	miles per gallon
Mt	million tonnes
Mt/yr	million tonnes/year
Mtce	million tonnes of standard coal equivalent
Mtce/b 1980 yuan NI	million tonnes of coal equivalent/billion 1980 yuan of national income
Mtce/yr	million tonnes of coal equivalent/year
Mt-km	million tonne-kilometers
MW	megawatts
MWe	megawatt electricity
MWh (1000 kWh)	megawatt-hour
MWh/t	megawatt-hour/tonne
MWh/yr	megawatt-hour/year
passenger-km/cap	passenger-kilometer/capita
percent	percent
person	person
persons/km ²	persons/square kilometer
PJ	petajoule (10 ¹⁵ Joules)
PJ/yr	petajoules/year
t	tonne (metric ton)

Abbreviation	Full Form
t C	tonne of carbon
t/Mt-km	tonne/million tonne-kilometers
t/t	tonne/tonne
t/yr	tonne/year
tce/k 1980 yuan	tonnes of coal equivalent/thousand 1980 yuan
tce/yr	tonnes of coal equivalent/year
thousands	thousands
TJ	terajoule (10^{12} Joules)
t-km/cap	tonne-kilometer/capita
Tm ³	trillion cubic meters
t-mpg	tonne-miles per gallon
TWh(b kWh)	terawatt-hours
TWh/year	terawatt-hours/year
units	units
units/100 households	units/hundred households
US\$/t	US\$/tonne
yuan	yuan
yuan/(tce/yr)	yuan/(tonne of coal equivalent/year)
yuan/kVA	yuan/kilovolt-ampere
yuan/kVA/month	yuan/kilovolt-ampere/month
yuan/kW/month	yuan/kilowatt/month
yuan/kWh	yuan/kilowatt-hour
yuan/MWh	yuan/megawatt-hour
yuan/t	yuan/tonne
yuan/yr	yuan/year

Appendix 2: Conversions

The following table contains the standard conversion factors from physical units to standard fuel equivalent used in the database and data tables. Except where noted, the conversion of hydroelectricity to standard coal equivalent is based on the Chinese practice of conversion to source energy. Although, in some statistical series, the Chinese vary this coefficient each year based on the average fuel consumption of power plants, the *Databook* employs a standard 404 grams of coal equivalent per kWh for all years, in order to accord with Chinese convention (which approximates the actual average heat rate of delivered electricity) and maintain transparency. In Chinese data, the heat value of coke oven gas and other gas varies from year to year and from province to province. In the *Databook*, a standard middle heat value has been used for all years and all locations. As a result, the calculated *Total Energy* values in the database in Mtce units will unlikely match precisely those reported in Chinese sources.

For this energy form...	this many..	of this original unit...	times this factor...	will give you this standard unit
Coal Total	1	Mt	0.714	Mtce
Raw Coal	1	Mt	0.714	Mtce
Cleaned Coal	1	Mt	0.900	Mtce
Other Washed Coal	1	Mt	0.525	Mtce
Briquettes	1	Mt	0.600	Mtce
Coke	1	Mt	0.971	Mtce
Coke Oven Gas	1	billion m ³	0.593	Mtce
Other Gas	1	billion m ³	0.288	Mtce
Other Coking Products	1	Mt	1.107	Mtce
Petroleum Products	1	Mt	1.430	Mtce
Crude Oil	1	Mt	1.429	Mtce
Gasoline	1	Mt	1.471	Mtce
Kerosene	1	Mt	1.471	Mtce
Diesel Oil	1	Mt	1.457	Mtce
Fuel Oil	1	Mt	1.429	Mtce
LPG	1	Mt	1.714	Mtce
Refinery Gas	1	Mt	1.571	Mtce

For this energy form...	this many..	of this original unit...	times this factor...	will give you this standard unit
Other Petroleum Products	1	Mt	1.310	Mtce
Natural Gas	1	billion m ³	1.330	Mtce
Heat	1	TJ	0.000034	Mtce
Heat	1	PJ	0.034	Mtce
Primary Electricity (source)*	1	TWh	0.404	Mtce
Primary Electricity (source)*	1	GWh	0.000404	Mtce
Primary Electricity (site)*		TWh	0.123	Mtce
Primary Electricity (site)*		GWh	0.000123	Mtce
Thermal Power	1	TWh	0.404	Mtce
Thermal Power	1	GWh	0.000404	Mtce
Total Power	1	TWh	0.404	Mtce
Total Power	1	GWh	0.000404	Mtce
Other Energy	1	Mt	1.000	Mtce
Fuelwood	1	Mt	0.571	Mtce
Crop Residues	1	Mt	0.430	Mtce
Dried Dung	1	Mt	0.471	Mtce

* In aggregate energy accounts, electricity can be counted two ways, i.e., as the energy content of electricity at the point of end use (site value), or as the energy value of the fuel needed to generate and deliver a given amount of electricity to the point of end-use (replacement or primary energy value). Unless otherwise noted, Chinese energy accounts typically convert electricity at its primary value, since most is generated by coal-fired plants.

Appendix 3: Bibliography

Database Citations

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CSA. *China Statistical Abstract 2004*

CSY. National Bureau of Statistics, *China Statistical Yearbook*, Statistical Publishing House, Beijing. 1985, 1998, 1999, 2000, 2001, 2002, 2003.

ERI. *Energy Research Institute*, Beijing.

SIFAC, National Bureau of Statistics, *Statistics on Investment of Fixed Assets of China (1950-2000)*, China Statistics Press, Beijing. 2002.

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China Energy Databook v. 7.0, October 2008

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The data tables (including the pivot tables) can be accessed in two formats: in the native Microsoft Excel and in Adobe Portable Document Format (PDF), suitable for printing. The content of the two versions are the same. Each chapter is combined into a single XLS or PDF file.

- The Excel XLS files are located in the \XLS folder on the CD.
- The Adobe PDF files are located in the \PDF folder on the CD

Tables labeled “A” indicate pivot tables containing Access database extracts.

Tables labeled “B” indicate standalone data tables.

Tables labeled “C” indicate tables with data that can no longer be updated.

See the Read Me file for information on the installation of the database, and refer to the appropriate Users Guide for information about the content and features of the database.

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Table 1B.1. Energy Resources^[1] for Selected Countries, 1999

1. Physical Units

Country	Coal ^[2]			Crude Oil ^[3] (Gt)	Natural Gas ^[3] (billion m ³)	Hydro- electricity ^[4] (TWh/year)	Uranium ^[5] (kt U)
	Subtotal (Gt)	Proved Amount in Place (Gt)	Estimated Additional Amount (Gt)				
China	898.99	231.09	667.90		38,000	5,920	1,770
India	312.91	222.89	90.02			2,638	108
Japan	8.27	8.27				718	7
USA	1,136.51	417.57	718.94	122.46		4,485	2,962
Russian Federation	5,487.00	287.00	5,200.00			2,800	1,282
World	11,228.27	2,631.26	8,597.01			40,704	16,459

2. Shares of World Totals

Country	Coal			Oil ^[3]	Natural Gas ^[3]	Hydro- electricity ^[4]	Uranium ^[5]
	Subtotal	Proved Amount in Place	Estimated Additional Amount				
China	8.0%	8.8%	7.8%			14.5%	10.8%
India	2.8%	8.5%	1.0%			6.5%	0.7%
Japan	0.1%	0.3%				1.8%	<0.05%
USA	10.1%	15.9%	8.4%			11.0%	18.0%
Russian Federation	48.9%	10.9%	60.5%			6.9%	7.8%
World	100.0%	100.0%	100.0%			100.0%	100.0%

[1] Unless otherwise noted, "resources" here are for the end of 1999, and refer to the sum of WEC categories Proved Amount in Place and Estimated Additional Amount in Place. Proved Amount in Place is "the amount that has been carefully measured and assessed as exploitable under present and expected local economic conditions with existing available technology." Estimated Additional Amount in Place "includes estimates of amounts which could exist in unexplored extensions of known deposits or in undiscovered deposits in known resource-bearing areas, as well as amounts inferred through knowledge of favourable geological conditions." All figures are based on data provided by the countries in which the resources are located. Since definitions of resource categories are not uniform among countries, data may not be strictly comparable and comparisons should be made with caution.

[2] With the exception of Japan and the US, coal data are from NBS, International Statistical Yearbook, 2000.

[3] While most countries report oil reserves (Table 1B.2), most do not report resources corresponding to the WEC categories described in note [1] above, so only the oil figure from the US is reported here, and no world total is available. Crude oil includes natural gas liquids. In other sources, China has estimated its total oil resources to be up to 13-15 Gt.

[4] Hydropower resources correspond to the WEC category "Gross Theoretical Capability," defined as "the annual energy potentially available in the country if all natural flows were turbed down to sea level or to the water level of the border of the country (if the water course extends into another country) with 100% efficiency from the machinery and driving water-works." Includes output from hydropower stations of all sizes.

[5] Figures correspond to the sum of the WEC categories of Proved Reserves, Total Additional Amounts Recoverable, and Other Amounts Recoverable, all at up to US\$130/kg. Proved Reserves refers to "recoverable uranium that occurs in known mineral deposits of such size, grade and configuration that it could be recovered within the stated production costs ranges [under \$130 US/kg] with currently proven mining and processing technology." Total Additional Amounts Recoverable refers to expected additional deposits, estimated from extensions of already known deposits. Other Amounts Recoverable refers to estimates of undiscovered uranium resources.

Source: World Energy Council, 2001; NBS, International Statistical Yearbook, 2000.

Table 1B.2. Energy Reserves^[1] for Selected Countries, 2005

1. Physical Units

Country	Coal			Crude Oil ^[2] (Gt)	Natural Gas ^[3] (billion m ³)	Hydropower ^[4] (TWh/year)	Uranium ^[5] (kt U)
	Subtotal (Gt)	Bituminous & Anthracite (Gt)	Subbituminous & Lignite (Gt)				
China	114.50	62.20	52.30	2.21	2,350	2,474	38
India	56.50	52.24	4.26	0.79	1,101	660	43
USA	242.72	112.26	130.46	3.69	5,866	1,752	342
Russian Federation	157.01	49.09	107.92	10.03	47,820	1,670	132
World	847.49	430.90	416.59	159.64	176,462	16,494	3,297

2. Shares of World Totals

Country	Coal			Crude Oil	Natural Gas ^[3]	Hydropower ^[4]	Uranium ^[5]
	Subtotal	Bituminous & Anthracite	Subbituminous & Lignite				
China	14%	14%	13%	1%	1%	15%	1%
India	7%	12%	1%	0.5%	1%	4%	1%
USA	29%	26%	31%	2%	3%	11%	10%
Russian Federation	19%	11%	26%	6%	27%	10%	4%
World	100%	100%	100%	100%	100%	100%	100%

[1] Unless otherwise noted, "reserves" here refers to the WEC category of Proved Recoverable Reserves which are defined as "the amount within the proved amount in place that can be recovered (extracted from the earth in raw form) under present and expected local economic conditions with existing available technology." WEC data are for end of 2005.

[2] Includes natural gas liquids.

[3] Note that, owing to definitional differences, China estimates its natural gas reserves to be 2,700 billion m³, much higher than the estimate presented here. See Table 1B.8 for Chinese estimates of natural gas resources and reserves by basin.

[4] Corresponds to the WEC category of Technically Exploitable Capability, defined as "the amount of the gross theoretical capability that can be exploited within the limits of current technology."

[5] Corresponds to WEC category of Proved Reserves, or the OECD Nuclear Energy Agency category of Reasonably Assured Resources. Proved reserves refers to "recoverable uranium that occurs in known mineral deposits of such size, grade and configuration that it could be recovered within the stated production cost ranges [up to US\$130/kg] with currently proven mining and processing technology. Estimates of tonnage and grade are based on specific sample data and measurements of the deposits, together with knowledge of deposit characteristics."

Source: World Energy Council, 2007.

Figure 1B.1. World Energy Reserves, 2005

Table 1B.3. Coal Resources^[1] by Type of Coal, End of 1995 (Gt)

Coal Classification	Estimated Resource	Share
brown coal	190.31	4.2%
bituminous coal	2,421.51	53.2%
gas coal	939.24	20.6%
rich coal	103.21	2.3%
coking coal	195.73	4.3%
lean coal	80.38	1.8%
meager coal	146.89	3.2%
anthracite coal	474.24	10.4%
total	4,551.50	100.0%

[1] This is the Chinese category of "Reserves Confirmed Through Exploration", which is considerably more inclusive than the WEC categories used in Tables 1B.1 and 1B.2.

Source: Li *et al.*, 1998.

Table 1B.4. Sulfur Content of Coal by Type and Region, 1995

	Percent of Coal Resources by Sulfur-Content Category ^[1]						Total ^[2]	Average Sulfur Content (Dry Weight %)
	Extra-Low (<0.5%)	Low (0.5%-1.0%)	Low-Medium (1.0%-2.0%)	Medium (1.5%-2.0%)	Medium-High (2.0%-3.0%)	High & Extra-High (>3.0%)		
Steam Coal	39.35%	16.46%	16.68%	9.49%	7.65%	7.05%	96.68%	1.15%
Coking Coal	55.16%	13.71%	4.18%	3.29%	8.05%	9.62%	94.01%	1.03%
North	42.99%	14.40%	16.94%	10.74%	8.88%	3.57%	97.52%	1.03%
Northeast	51.66%	14.04%	19.68%	1.92%	2.05%	0.00%	89.35%	0.47%
East	46.67%	31.14%	3.70%	3.20%	4.72%	9.21%	98.64%	1.08%
South Central	65.20%	12.42%	7.66%	2.34%	5.50%	6.71%	99.83%	1.17%
Southwest	13.22%	10.71%	7.52%	2.68%	17.40%	43.61%	95.14%	2.43%
Northwest	66.23%	6.20%	2.50%	4.01%	9.31%	9.98%	98.23%	1.07%
National Average (weighted)	48.60%	14.85%	9.30%	5.91%	7.86%	8.54%	95.06%	1.10%

[1] Percent of total coal resources.

[2] Categories do not sum to 100% in original data source.

Source: Li *et al.*, 1998.

Table 1B.5. Reserve Base of Coal, Oil, and Natural Gas^[1] by Province, 2006

Planning Region	Province	Coal billion tonnes	Oil million tonnes	Natural Gas billion m3
North	Beijing	0.57		
	Tianjin	0.30	30.75	27.58
	Hebei	6.82	163.39	24.06
	Shanxi	105.17		
	Inner Mongolia	80.23	55.26	164.30
Northeast	Liaoning	4.98	170.10	20.29
	Jilin	1.71	165.30	16.78
	Heilongjiang	7.77	621.97	93.58
East	Shanghai			
	Jiangsu	1.83	25.04	2.27
	Zhejiang	0.05		
	Anhui	11.87	1.38	0.00
	Fujian	0.48		
	Jiangxi	0.82		
	Shandong	10.33	347.48	34.84
South-Central	Henan	12.33	53.71	11.04
	Hubei	0.33	11.87	0.39
	Hunan	2.01		
	Guangdong	0.19	0.09	0.03
	Guangxi	0.85	1.75	0.35
	Hainan	0.09	0.41	0.89
Southwest	Chongqing	1.83		113.58
	Sichuan	5.03	3.45	546.28
	Guizhou	14.83		0.46
	Yunnan	7.36	0.12	0.29
	Xizang (Tibet)	0.01		
Northwest	Shaanxi	27.76	198.85	858.77
	Gangsu	6.17	87.28	9.89
	Ningxia	2.07	43.77	149.61
	Qinghai	7.01	1.40	0.17
	Xinjiang	12.73	418.83	659.82
Offshore			356.38	265.67
National Total		333.48	2,758.57	3,000.92

[1] This is the Chinese category of 基础储量, which is more inclusive than indicated economic reserves or the WEC categories shown in Table 1B.2.

Source: NBS, 2007.

Table 1B.6. Undiscovered Oil Resources and Recoverable Resources by Region and Basin, 2006 (Gt)

Region	Major Basin	Total Resources	Resources in Major Basins	Recoverable Resources
Onshore				
East	Songliao		4.78	0.96
	Bohai Gulf		4.96	0.99
	<i>Total (East)</i>	<i>12.21</i>		<i>2.48</i>
Central	Ordos		1.31	0.25
	<i>Total (Central)</i>	<i>1.89</i>		<i>0.34</i>
West	Jungar		2.04	0.41
	Tarim		4.44	0.89
	Qaidam		1.41	0.31
	<i>Total (West)</i>	<i>9.53</i>		<i>2.10</i>
Other				
	<i>Total (Other)</i>	<i>0.01</i>		<i>0.00</i>
Onshore Total		23.64		4.92
Offshore				
Offshore Total		8.63		1.90
All regions	National total	32.28		6.82

Source: CNPC Economy and Technology Research Institute, 2006.

Table 1B.7. Oil Resources and Proved Reserves by Basin, 1999 (Gt)

Region	Subregion	Major Basin	Total Resources	Resources in Major Basins	Proved Reserves	
Onshore						
East	Northeast	Songliao		12.89	5.98	
		Erlian		0.69	0.15	
		Yilanyitong		0.45	0.03	
		Subtotal (Northeast)	16.00	14.03	6.17	
	Bohai Gulf	Bohai Gulf	18.99	18.84	7.38	
	Southern North China	Nanyang		0.36	0.18	
		Jiaghan		0.37	0.10	
		Subei		0.53	0.10	
		Subtotal (S. North China)	0.36	0.24		
	Middle & Lower Yangtze		1.45	1.25	0.38	
Total (East)		36.80	34.36	13.93		
Central	Ordos	2.50	1.91	0.54		
	Sichuan	1.14	1.14	0.02		
	Total (Central)		3.64	3.05	0.56	
West	Jungar	9.80	6.94	1.44		
	Tu-Ha (Turpan-Hami)		1.58	0.20		
	Tarim	11.00	10.76	0.25		
	Qaidam	1.50	1.24	0.19		
	Hexi Corridor-Beishan	Jiuxi	3.60	0.30	0.09	
		Total (West)		25.90	20.82	2.17
South	Bose		0.14	0.02		
	Sanshui		0.02	0.00		
	Total (South)		2.25			
Tibet	Total (Tibet)		0.84	0.84	0.00	
Onshore Total			69.43	59.22	16.69	
Offshore						
		Eastern Bohai, Northern Pearl River Delta, Yinggehai	24.60	19.88	0.74	
All regions			National total	94.00	79.10	17.43

Source: Gu *et al.*, 1999.

**Table 1B.8. Undiscovered Natural Gas Resources by Region and Basin
(billion m³), 2006**

Region	Major Basin	Total Resources	Resources in Major Basins
Onshore			
East	Songliao		190
	Bohai Gulf		600
	<i>Total (East)</i>	<i>1,800</i>	
Central	Ordos		4,120
	Sichuan		2,670
	<i>Total (Central)</i>	<i>6,780</i>	
West	Jungar		830
	Tarim		3,490
	Qaidam		610
	<i>Total (West)</i>	<i>5,140</i>	
Other			
	<i>Total (Other)</i>	<i>760</i>	
Onshore Total		14,480	
Offshore			
	Offshore Total	2,920	
All regions	National total	17,400	

Source: CNPC Economy and Technology Research Institute, 2006.

Table 1B.9. Natural Gas Resources and Proved Reserves by Basin (billion m³)^[1] 1999

	Total Proved Reserves	Resources in Basin	Ratio of Resources to Proved Reserves
Songliao	290.56	875.65	3
Bohai Gulf	566.05	2,118.13	4
Turpan-Hami	69.78	365.00	5
Tarim	215.02	8,389.62	39
Jungar	163.67	1,228.90	8
Qaidam	141.97	1,050.00	7
Sichuan	570.06	7,357.52	13
Ordos	323.45	4,179.74	13
Bohai	54.09	288.10	5
East China Sea	31.49	2,480.34	79
Qiongdongnan	88.50	1,625.34	18
Yinggehai	160.66	2,239.00	14
Other Basins	45.19	5,842.67	129
National Total	2,720.47	38,040.00	14

[1] The definitions used in China for natural gas resources and reserves are broader than those used in international sources, so the official Chinese figures in this table are substantially higher than those presented in Tables 1B.1 and 1B.2.

Source: Qian, *et al.*, 1999.

Table 1B.10. Exploitable Hydropower Resources^[1] by Province, 1980

Region	Province	Potential Installed Capacity (GW)	Potential Annual Generation (TWh/yr)	Share of Total Potential Annual Generation
North		6.9	23.2	1.21%
	Hebei ^[2]	1.8	4.2	0.22%
	Shanxi	2.6	10.7	0.56%
	Inner Mongolia	2.4	8.4	0.43%
Northeast		12.0	38.4	2.00%
	Liaoning	1.6	5.6	0.29%
	Jilin	4.3	11.0	0.57%
	Heilongjiang	6.0	21.9	1.14%
East		17.9	68.8	3.58%
	Jiangsu ^[3]	0.1	0.3	0.02%
	Zhejiang	4.7	14.6	0.76%
	Anhui	0.9	2.6	0.14%
	Fujian	7.1	32.0	1.66%
	Jiangxi	5.1	19.1	0.99%
	Shandong	0.1	0.2	0.01%
South-Central		67.4	297.4	15.46%
	Henan	2.9	11.2	0.58%
	Hubei	33.1	149.4	7.77%
	Hunan	10.8	48.9	2.54%
	Guangdong	6.4	24.0	1.25%
	Guangxi	14.2	63.9	3.32%
Southwest		232.3	1,305.0	67.85%
	Sichuan	91.7	515.3	26.79%
	Guizhou	12.9	65.2	3.39%
	Yunnan	71.2	394.5	20.51%
	Xizang (Tibet)	56.6	330.0	17.16%
Northwest		41.9	190.5	9.90%
	Shaanxi	5.5	21.7	1.13%
	Gansu	9.1	42.4	2.21%
	Qinghai	18.0	77.2	4.01%
	Ningxia	0.8	3.2	0.16%
	Xinjiang	8.5	46.0	2.39%
National Total		378.5	1,923.3	100.00%

[1] Statistics in this table are calculated on the basis of sites that can accommodate power plants of ≥ 500 kW of installed capacity. No major revisions have been made to these figures since their publication.

[2] Includes Beijing and Tianjin.

[3] Includes Shanghai.

Source: Wang, 1988.

Table 1C.1. Energy Reserves^[1] for Selected Countries, 1999

1. Physical Units

Country	Coal			Crude Oil ^[2] (Gt)	Natural Gas ^[3] (billion m ³)	Hydropower ^[4] (TWh/year)	Uranium ^[5] (kt U)
	Subtotal (Gt)	Bituminous & Anthracite (Gt)	Subbituminous & Lignite (Gt)				
China	114.50	62.20	52.30	4.79	1,368	1,920	72
India	84.40	82.40	2.00	0.65	647	660	53
Japan	0.77	0.77		0.01	39	136	7
USA	249.99	115.89	134.10	3.73	4,740	529	349
Russian Federation	157.01	49.09	107.92	6.65	47,730	1,670	141
World	984.45	519.06	465.39	142.49	151,502	14,379	3,282

2. Shares of World Totals

Country	Coal			Crude Oil	Natural Gas ^[3]	Hydropower ^[4]	Uranium ^[5]
	Subtotal	Bituminous & Anthracite	Subbituminous & Lignite				
China	12%	12%	11%	3%	1%	13%	2%
India	9%	16%	<0.05%	<0.05%	<0.05%	5%	2%
Japan	<0.05%	<0.05%		<0.05%	<0.05%	1%	<0.05%
USA	25%	22%	29%	3%	3%	4%	11%
Russian Federation	16%	9%	23%	5%	32%	12%	4%
World	100%	100%	100%	100%	100%	100%	100%

[1] Unless otherwise noted, "reserves" here refers to the WEC category of Proved Recoverable Reserves which are defined as "the amount within the proved amount in place that can be recovered (extracted from the earth in raw form) under present and expected local economic conditions with existing available technology." WEC data are for end of 2000.

[2] Includes natural gas liquids.

[3] Note that, owing to definitional differences, China estimates its natural gas reserves to be 2,700 billion m³, much higher than the estimate presented here. See Table 1B.8 for Chinese estimates of natural gas resources and reserves by basin.

[4] Corresponds to the WEC category of Technically Exploitable Capability, defined as "the amount of the gross theoretical capability that can be exploited within the limits of current technology."

[5] Corresponds to WEC category of Proved Reserves, or the OECD Nuclear Energy Agency category of Reasonably Assured Resources. Proved reserves refers to "recoverable uranium that occurs in known mineral deposits of such size, grade and configuration that it could be recovered within the stated production cost ranges [up to US\$130/kg] with currently proven mining and processing technology. Estimates of tonnage and grade are based on specific sample data and measurements of the deposits, together with knowledge of deposit characteristics."

Source: World Energy Council, 2001. China data on uranium from NBS, International Statistical Yearbook, 2000.

Table 1C.2. Estimated Coal Resources^[1] by Province and Type, End of 1995 (Gt)

Planning Region	Province	Total Estimated Resources	Brown	Bituminous	Gas	Rich	Coking	Lean	Meager	Anthracite
North	Beijing	8.67								8.67
	Tianjin	4.45			4.45					
	Hebei	60.14	1.00	0.72	50.84	3.02				4.55
	Shanxi	389.92	1.27	5.39	7.04	34.39	50.80	30.19	58.98	201.86
	Inner Mongolia	1,225.04	175.34	900.40	107.95	1.10	36.42	0.02	2.40	0.82
Northeast	Liaoning	5.93	0.60	2.54	0.75	0.11	0.16	0.00	0.22	1.55
	Jilin	3.00	0.75	1.11	0.37	0.05	0.07	0.19	0.20	0.28
	Heilongjiang	17.61	4.45	0.85	8.33	0.00	3.77	0.06	0.16	
East	Shanghai									
	Jiangsu	5.05			3.47	0.16	0.69	0.20	0.35	0.18
	Zhejiang	0.04				0.04				
	Anhui	61.16		0.07	37.04	3.50	15.44	3.37	0.36	1.39
	Fujian	2.56						0.01	0.00	2.55
	Jiangxi	4.08		0.04	0.16	0.08	0.61	0.24	0.55	2.41
	Shandong	40.51	2.47	0.32	22.07	7.65	0.56		2.77	4.68
South-Central	Henan	91.97	0.88	0.38	8.61	1.92	16.38	8.79	10.93	44.08
	Hubei	0.20							0.05	0.16
	Hunan	4.54		0.02	0.13	0.23	0.21	0.13	0.17	3.66
	Guangdong	0.91	0.04			0.01	0.01		0.07	0.78
	Guangxi	1.76	0.17	0.14				0.04	0.55	0.86
	Hainan	0.00	0.00							
Southwest	Sichuan	30.38	1.43		0.49	0.57	7.55	5.54	1.48	13.33
	Guizhou	189.69			0.52	4.14	31.96	13.40	24.73	114.95
	Yunnan	43.79	1.91	0.07	0.62	0.36	12.40	3.12	12.55	12.76
	Xizang (Tibet)	0.81		0.01	0.01	0.02	0.01	0.01	0.00	0.74
Northwest	Shaanxi	203.11		52.38	80.02	11.59	11.15	6.45	9.45	32.08
	Gansu	142.89		24.25	117.30	0.16	0.00	0.57	0.48	0.12
	Ningxia	172.11		126.48	8.43	2.07	1.78	2.48	12.35	18.52
	Qinghai	38.04		14.36	5.19	0.79	3.30	3.03	8.12	3.26
	Xinjiang	1,803.73		1,292.00	475.45	31.26	2.48	2.54		
National Total		4,552.10	190.31	2,421.51	939.24	103.21	195.73	80.38	146.89	474.24

[1] This is the Chinese category of "Reserves Confirmed Through Exploration", which is considerably more inclusive than the WEC categories used in Tables 1B.1 and 1B.2.

Source: Li *et al.*, 1998.

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Table 2A.1.1 Primary Energy Production

Physical Units

Sum of EB	EBMaterial		EBUom	
	Coal Raw	Crude Oil	Natural Gas	Electricity
EBYear	Mt	Mt	bm3	TWh
1949	32.00	0.12	0.01	0.70
1950	42.92	0.20	0.01	0.80
1951	53.08	0.31	0.00	0.90
1952	66.00	0.44	0.01	1.30
1953	69.73	0.62	0.01	1.50
1954	83.66	0.79	0.02	2.20
1955	98.38	0.97	0.02	2.40
1956	110.36	1.16	0.03	3.50
1957	130.78	1.46	0.07	4.80
1958	270.00	2.26	0.11	4.10
1959	369.00	3.73	0.29	4.40
1960	397.00	5.20	1.04	7.40
1961	277.62	5.31	1.47	7.40
1962	219.55	5.75	1.21	9.00
1963	217.07	6.48	1.02	8.70
1964	214.57	8.48	1.06	10.60
1965	231.80	11.31	1.10	10.40
1966	252.00	14.55	1.34	12.60
1967	206.00	13.88	1.46	13.10
1968	220.00	15.99	1.40	11.50
1969	266.00	21.74	1.96	16.00
1970	354.00	30.65	2.87	20.50
1971	392.00	39.41	3.74	25.10
1972	410.00	45.67	4.84	28.80
1973	417.00	53.61	5.98	38.90
1974	413.00	64.85	7.53	41.40
1975	482.00	77.06	8.85	47.60
1976	483.00	87.16	10.10	45.60
1977	550.00	93.64	12.12	47.60
1978	618.00	104.05	13.73	44.60
1979	635.00	106.15	14.51	50.10
1980	620.15	105.95	14.27	58.21
1981	621.64	101.22	12.74	65.55
1982	666.33	102.12	11.93	74.40
1983	714.53	106.07	12.21	86.36
1984	789.23	114.61	12.43	86.78
1985	872.28	124.90	12.93	92.37
1986	894.04	130.69	13.76	94.53
1987	927.97	134.14	13.89	100.01
1988	979.88	137.05	14.26	109.15
1989	1,054.14	137.64	15.05	118.39
1990	1,079.88	138.31	15.30	126.72
1991	1,087.41	140.99	16.07	125.09
1992	1,116.38	142.10	15.79	132.47
1993	1,150.67	145.17	16.77	154.38
1994	1,239.90	146.08	17.56	182.16
1995	1,360.73	150.04	17.95	203.41
1996	1,396.70	157.33	20.11	202.30
1997	1,372.82	160.74	22.70	211.49
1998	1,250.00	161.00	23.28	222.90
1999	1,280.00	160.00	25.20	213.60
2000	1,299.21	163.00	27.20	241.41
2001	1,381.52	163.96	30.33	297.38
2002	1,454.56	167.00	32.66	315.86
2003	1,722.00	169.60	35.02	330.21
2004	1,992.32	175.87	41.46	407.72
2005	2,204.73	181.35	49.32	452.92
2006	2,373.00	184.77	58.55	496.12

Table 2A.1.2 Primary Energy Production

Mtce

Sum of EBN	EBMaterial				
EBYear	Coal Raw	Crude Oil	Natural Gas	Electricity	Total
1949	22.85	0.17	0.01	0.28	23.31
1950	30.64	0.29	0.01	0.32	31.26
1951	37.90	0.44	0.00	0.36	38.71
1952	47.12	0.63	0.01	0.53	48.29
1953	49.79	0.89	0.01	0.61	51.29
1954	59.73	1.13	0.02	0.89	61.77
1955	70.24	1.39	0.02	0.97	72.62
1956	78.80	1.66	0.03	1.41	81.90
1957	93.38	2.09	0.09	1.94	97.50
1958	192.78	3.23	0.15	1.66	197.81
1959	263.47	5.33	0.39	1.78	270.96
1960	283.46	7.43	1.38	2.99	295.26
1961	198.22	7.59	1.96	2.99	210.75
1962	156.76	8.22	1.61	3.64	170.22
1963	154.99	9.26	1.36	3.51	169.12
1964	153.20	12.12	1.41	4.28	171.01
1965	165.51	16.16	1.46	4.20	187.33
1966	179.93	20.79	1.78	5.09	207.59
1967	147.08	19.83	1.94	5.29	174.15
1968	157.08	22.85	1.86	4.65	186.44
1969	189.92	31.07	2.61	6.46	230.06
1970	252.76	43.80	3.82	8.28	308.65
1971	279.89	56.32	4.97	10.14	351.32
1972	292.74	65.26	6.44	11.64	376.07
1973	297.74	76.61	7.95	15.72	398.02
1974	294.88	92.67	10.01	16.73	414.29
1975	344.15	110.12	11.77	19.23	485.27
1976	344.86	124.55	13.43	18.42	501.27
1977	392.70	133.81	16.12	19.23	561.86
1978	441.25	148.69	18.26	18.02	626.22
1979	453.39	151.69	19.30	20.24	644.62
1980	442.79	151.40	18.98	23.52	636.68
1981	443.85	144.64	16.94	26.48	631.92
1982	475.76	145.93	15.87	30.06	667.62
1983	510.17	151.57	16.24	34.89	712.87
1984	563.51	163.78	16.53	35.06	778.88
1985	622.81	178.47	17.20	37.32	855.80
1986	638.34	186.75	18.30	38.19	881.59
1987	662.57	191.69	18.47	40.40	913.13
1988	699.63	195.84	18.97	44.10	958.53
1989	752.66	196.69	20.02	47.83	1,017.19
1990	771.04	197.64	20.35	51.19	1,040.22
1991	776.41	201.48	21.37	50.54	1,049.79
1992	797.10	203.06	21.00	53.52	1,074.67
1993	821.58	207.45	22.30	62.37	1,113.70
1994	885.29	208.75	23.35	73.59	1,190.98
1995	971.56	214.41	23.87	82.18	1,292.02
1996	997.24	224.83	26.75	81.73	1,330.56
1997	980.19	229.70	30.19	85.44	1,325.53
1998	892.50	230.07	30.96	90.05	1,243.58
1999	913.92	228.64	33.51	86.29	1,262.37
2000	927.64	232.93	36.18	97.53	1,294.27
2001	986.41	234.30	40.34	120.14	1,381.18
2002	1,038.56	238.64	43.44	127.61	1,448.25
2003	1,229.51	242.36	46.57	133.41	1,651.84
2004	1,422.52	251.32	55.14	164.72	1,893.70
2005	1,574.18	259.15	65.60	182.98	2,081.91
2006	1,694.32	264.03	77.88	200.43	2,236.66

Table 2A.1.3 Primary Energy Production
Percent Shares

Sum of EBN	EBMaterial				
EBYear	Coal Raw	Crude Oil	Natural Gas	Electricity	Total
1949	98%	1%	0%	1%	100%
1950	98%	1%	0%	1%	100%
1951	98%	1%	0%	1%	100%
1952	98%	1%	0%	1%	100%
1953	97%	2%	0%	1%	100%
1954	97%	2%	0%	1%	100%
1955	97%	2%	0%	1%	100%
1956	96%	2%	0%	2%	100%
1957	96%	2%	0%	2%	100%
1958	97%	2%	0%	1%	100%
1959	97%	2%	0%	1%	100%
1960	96%	3%	0%	1%	100%
1961	94%	4%	1%	1%	100%
1962	92%	5%	1%	2%	100%
1963	92%	5%	1%	2%	100%
1964	90%	7%	1%	3%	100%
1965	88%	9%	1%	2%	100%
1966	87%	10%	1%	2%	100%
1967	84%	11%	1%	3%	100%
1968	84%	12%	1%	2%	100%
1969	83%	14%	1%	3%	100%
1970	82%	14%	1%	3%	100%
1971	80%	16%	1%	3%	100%
1972	78%	17%	2%	3%	100%
1973	75%	19%	2%	4%	100%
1974	71%	22%	2%	4%	100%
1975	71%	23%	2%	4%	100%
1976	69%	25%	3%	4%	100%
1977	70%	24%	3%	3%	100%
1978	70%	24%	3%	3%	100%
1979	70%	24%	3%	3%	100%
1980	70%	24%	3%	4%	100%
1981	70%	23%	3%	4%	100%
1982	71%	22%	2%	5%	100%
1983	72%	21%	2%	5%	100%
1984	72%	21%	2%	5%	100%
1985	73%	21%	2%	4%	100%
1986	72%	21%	2%	4%	100%
1987	73%	21%	2%	4%	100%
1988	73%	20%	2%	5%	100%
1989	74%	19%	2%	5%	100%
1990	74%	19%	2%	5%	100%
1991	74%	19%	2%	5%	100%
1992	74%	19%	2%	5%	100%
1993	74%	19%	2%	6%	100%
1994	74%	18%	2%	6%	100%
1995	75%	17%	2%	6%	100%
1996	75%	17%	2%	6%	100%
1997	74%	17%	2%	6%	100%
1998	72%	19%	2%	7%	100%
1999	72%	18%	3%	7%	100%
2000	72%	18%	3%	8%	100%
2001	71%	17%	3%	9%	100%
2002	72%	16%	3%	9%	100%
2003	74%	15%	3%	8%	100%
2004	75%	13%	3%	9%	100%
2005	76%	12%	3%	9%	100%
2006	76%	12%	3%	9%	100%

Table 2A.1.4 Primary Energy Production

Annual Growth

Sum of EBN	EBMaterial				
EBYear	Coal Raw	Crude Oil	Natural Gas	Electricity	Total
1949					
1950	34%	67%	0%	14%	34%
1951	24%	55%	-57%	13%	24%
1952	24%	42%	167%	44%	25%
1953	6%	41%	38%	15%	6%
1954	20%	27%	36%	47%	20%
1955	18%	23%	13%	9%	18%
1956	12%	20%	53%	46%	13%
1957	19%	26%	169%	37%	19%
1958	106%	55%	57%	-15%	103%
1959	37%	65%	164%	7%	37%
1960	8%	39%	259%	68%	9%
1961	-30%	2%	41%	0%	-29%
1962	-21%	8%	-18%	22%	-19%
1963	-1%	13%	-16%	-3%	-1%
1964	-1%	31%	4%	22%	1%
1965	8%	33%	4%	-2%	10%
1966	9%	29%	22%	21%	11%
1967	-18%	-5%	9%	4%	-16%
1968	7%	15%	-4%	-12%	7%
1969	21%	36%	40%	39%	23%
1970	33%	41%	46%	28%	34%
1971	11%	29%	30%	22%	14%
1972	5%	16%	29%	15%	7%
1973	2%	17%	24%	35%	6%
1974	-1%	21%	26%	6%	4%
1975	17%	19%	18%	15%	17%
1976	0%	13%	14%	-4%	3%
1977	14%	7%	20%	4%	12%
1978	12%	11%	13%	-6%	11%
1979	3%	2%	6%	12%	3%
1980	-2%	0%	-2%	16%	-1%
1981	0%	-4%	-11%	13%	-1%
1982	7%	1%	-6%	14%	6%
1983	7%	4%	2%	16%	7%
1984	10%	8%	2%	0%	9%
1985	11%	9%	4%	6%	10%
1986	2%	5%	6%	2%	3%
1987	4%	3%	1%	6%	4%
1988	6%	2%	3%	9%	5%
1989	8%	0%	6%	8%	6%
1990	2%	0%	2%	7%	2%
1991	1%	2%	5%	-1%	1%
1992	3%	1%	-2%	6%	2%
1993	3%	2%	6%	17%	4%
1994	8%	1%	5%	18%	7%
1995	10%	3%	2%	12%	8%
1996	3%	5%	12%	-1%	3%
1997	-2%	2%	13%	5%	0%
1998	-9%	0%	3%	5%	-6%
1999	2%	-1%	8%	-4%	2%
2000	2%	2%	8%	13%	3%
2001	6%	1%	12%	23%	7%
2002	5%	2%	8%	6%	5%
2003	18%	2%	7%	5%	14%
2004	16%	4%	18%	23%	15%
2005	11%	3%	19%	11%	10%
2006	8%	2%	19%	10%	7%

Table 2A.1.5 Primary Energy Production

EJ

Sum of EJ	EBMaterial				
EBYear	Coal Raw	Crude Oil	Natural Gas	Electricity	Total
1949	0.67	0.01	0.00	0.01	0.68
1950	0.90	0.01	0.00	0.01	0.92
1951	1.11	0.01	0.00	0.01	1.13
1952	1.38	0.02	0.00	0.02	1.41
1953	1.46	0.03	0.00	0.02	1.50
1954	1.75	0.03	0.00	0.03	1.81
1955	2.06	0.04	0.00	0.03	2.13
1956	2.31	0.05	0.00	0.04	2.40
1957	2.73	0.06	0.00	0.06	2.85
1958	5.64	0.09	0.00	0.05	5.79
1959	7.71	0.16	0.01	0.05	7.93
1960	8.30	0.22	0.04	0.09	8.64
1961	5.80	0.22	0.06	0.09	6.17
1962	4.59	0.24	0.05	0.11	4.98
1963	4.54	0.27	0.04	0.10	4.95
1964	4.48	0.35	0.04	0.13	5.01
1965	4.84	0.47	0.04	0.12	5.48
1966	5.27	0.61	0.05	0.15	6.08
1967	4.31	0.58	0.06	0.15	5.10
1968	4.60	0.67	0.05	0.14	5.46
1969	5.56	0.91	0.08	0.19	6.73
1970	7.40	1.28	0.11	0.24	9.03
1971	8.19	1.65	0.15	0.30	10.28
1972	8.57	1.91	0.19	0.34	11.01
1973	8.72	2.24	0.23	0.46	11.65
1974	8.63	2.71	0.29	0.49	12.13
1975	10.07	3.22	0.34	0.56	14.20
1976	10.09	3.65	0.39	0.54	14.67
1977	11.49	3.92	0.47	0.56	16.45
1978	12.92	4.35	0.53	0.53	18.33
1979	13.27	4.44	0.56	0.59	18.87
1980	12.96	4.43	0.56	0.69	18.64
1981	12.99	4.23	0.50	0.78	18.50
1982	13.93	4.27	0.46	0.88	19.54
1983	14.93	4.44	0.48	1.02	20.87
1984	16.49	4.79	0.48	1.03	22.80
1985	18.23	5.22	0.50	1.09	25.05
1986	18.68	5.47	0.54	1.12	25.80
1987	19.39	5.61	0.54	1.18	26.73
1988	20.48	5.73	0.56	1.29	28.06
1989	22.03	5.76	0.59	1.40	29.77
1990	22.57	5.79	0.60	1.50	30.45
1991	22.73	5.90	0.63	1.48	30.73
1992	23.33	5.94	0.61	1.57	31.46
1993	24.05	6.07	0.65	1.83	32.60
1994	25.91	6.11	0.68	2.15	34.86
1995	28.44	6.28	0.70	2.41	37.82
1996	29.19	6.58	0.78	2.39	38.95
1997	28.69	6.72	0.88	2.50	38.80
1998	26.12	6.73	0.91	2.64	36.40
1999	26.75	6.69	0.98	2.53	36.95
2000	27.15	6.82	1.06	2.85	37.88
2001	28.87	6.86	1.18	3.52	40.43
2002	30.40	6.99	1.27	3.74	42.39
2003	35.99	7.09	1.36	3.90	48.35
2004	41.64	7.36	1.61	4.82	55.43
2005	46.08	7.59	1.92	5.36	60.94
2006	49.59	7.73	2.28	5.87	65.47

Figure 2A.1. Primary Energy Production by Energy Source in China, Mtce, 1949-2006

Figure 2A.2. Primary Energy Production by Source, 1949-2006

Table 2A.2.1 Commercial Energy Production by Province and Energy Source

Coal, Mt

Sum of EBAmount		EBYear																			
scoProvReg	EBScopeName	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
East	Anhui	30.52	31.16	32.05	30.84	33.72	36.13	41.00	44.44	50.86	48.97	45.72	46.78	47.90	53.47	61.38	67.26	81.42	86.35	83.31	
	Fujian	8.64	9.45	9.25	8.57	9.10	9.83	10.00	11.34	11.68	7.76	7.27	13.70	13.97	12.93	16.50	17.40	18.35	20.00	20.15	
	Jiangsu	23.32	24.46	24.08	24.71	24.58	25.06	25.00	26.44	26.07	25.06	23.79	22.92	24.79	24.51	25.94	27.60	27.62	28.18	30.48	
	Jiangxi	20.49	20.63	20.27	21.23	20.88	21.04	23.00	28.78	24.38	20.64	21.07	17.31	18.14	15.17	13.75	14.52	23.72	25.65	27.83	
	Shandong	55.59	56.95	59.95	60.54	63.50	68.03	78.00	88.27	89.49	90.94	89.77	89.95	80.39	106.88	130.66	146.67	146.46	140.30	140.59	
	Zhejiang	1.43	1.44	1.37	1.39	1.44	1.37	1.00	1.04	1.23	1.15	0.92	0.83	0.73	0.72	0.74	0.69	0.56	0.44	0.13	
East Total		139.99	144.08	146.98	147.28	153.22	161.46	178.00	200.31	203.70	194.52	188.54	191.48	185.91	213.69	248.96	274.15	298.13	300.91	302.49	
North	Beijing	9.06	10.17	10.06	9.97	10.15	10.52	10.00	9.95	10.14	10.12	9.89	7.92	6.90	8.32	8.81	9.57	10.68	9.45	6.42	
	Hebei	64.34	63.24	62.43	61.43	62.59	63.77	68.00	81.01	84.02	78.79	77.37	76.92	67.47	67.86	70.70	72.54	86.53	86.39	83.66	
	Inner Mongolia	37.35	43.82	47.62	49.23	50.39	42.58	61.00	70.55	73.17	83.03	77.69	70.71	72.47	81.63	114.71	147.07	212.35	256.08	297.60	
	Shanxi	246.48	275.01	285.97	291.62	296.87	310.15	324.00	347.31	348.81	338.43	314.82	248.96	251.52	276.60	367.62	452.32	508.62	554.26	581.42	
North Total		357.23	392.24	406.07	412.25	420.00	427.02	463.00	508.82	516.13	510.37	479.77	404.51	398.36	434.41	561.84	681.50	818.18	906.18	969.09	
NorthEast	Heilongjiang	71.72	76.16	82.63	85.14	83.95	73.27	77.00	79.38	76.46	85.18	70.92	62.30	54.38	51.21	58.83	81.05	93.68	97.37	102.82	
	Jilin	22.28	24.38	26.10	25.59	25.04	24.24	25.00	26.42	26.00	26.77	21.30	19.28	18.00	17.59	18.17	22.55	25.90	27.15	29.89	
	Liaoning	45.89	49.80	51.01	52.35	53.95	55.67	55.00	56.26	60.41	58.84	57.86	47.79	44.55	44.68	51.81	58.71	66.42	66.41	69.08	
NorthEast Total		139.89	150.35	159.75	163.08	162.94	153.18	157.00	162.06	162.86	170.79	150.09	129.37	116.94	113.48	128.80	162.31	186.00	190.92	201.79	
NorthWest	Gansu	13.58	14.15	15.64	15.43	15.42	18.00	21.00	24.66	22.21	22.93	23.16	18.92	16.33	18.19	23.66	29.23	35.40	36.20	38.23	
	Ningxia	13.28	13.39	14.43	14.03	13.79	13.63	14.00	14.80	16.16	16.70	15.83	15.31	16.00	16.00	17.07	21.95	24.33	26.60	32.75	
	Qinghai	2.68	3.02	3.20	2.87	2.82	2.28	3.00	2.78	2.97	3.29	3.20	2.85	2.20	1.69	2.50	3.11	4.11	5.55	5.92	
	Shaanxi	27.65	31.49	33.27	32.90	34.23	33.63	37.00	42.48	46.14	49.49	44.47	36.90	37.75	48.92	58.59	83.01	93.47	152.46	162.11	
	Xinjiang	18.13	20.20	21.00	21.12	22.04	23.92	26.00	27.21	29.86	30.21	29.27	27.78	27.99	28.20	30.99	34.83	37.49	39.42	45.19	
NorthWest Total		75.32	82.25	87.54	86.35	88.30	91.46	101.00	111.93	117.34	122.62	115.93	101.76	100.27	112.99	132.81	172.12	194.80	260.23	284.19	
SouthCentral	Guangdong	9.28	9.82	8.90	9.33	9.54	9.51	9.00	10.69	9.62	8.40	7.62	5.00	4.15	1.90	2.18	6.71	10.05	4.77		
	Guangxi	10.35	11.40	9.79	9.93	10.93	44.96	12.00	13.87	12.52	11.14	10.15	8.16	7.08	61.35	4.37	4.43	5.21	7.00	6.81	
	Hainan				0.02	0.02	0.02		0.01	0.02	0.02	0.02				0.01					
	Henan	82.45	88.58	90.80	89.73	90.27	92.79	96.00	103.34	107.81	105.20	94.06	80.12	75.78	84.48	99.21	132.26	152.08	187.61	195.32	
	Hubei	10.01	10.38	9.24	8.10	8.85	9.87	12.00	15.47	15.21	15.17	13.26	9.11	7.98	7.50	6.85	6.41	6.30	7.78	12.01	
	Hunan	35.62	36.90	33.71	33.14	36.01	42.13	49.00	55.65	50.93	44.10	43.52	26.19	21.06	36.73	35.00	43.00	50.54	69.04	69.03	
SouthCentral Total		147.71	157.09	152.45	150.25	155.62	199.28	178.00	199.03	196.11	184.03	168.63	128.58	116.05	191.97	147.62	192.82	224.18	276.21	283.44	
SouthWest	Chongqing										29.31	28.33	27.76	27.78	25.56	26.00	25.75	30.09	34.00	40.44	
	Guizhou	32.10	34.96	36.95	37.23	41.62	45.29	51.00	54.72	61.43	65.97	65.61	40.25	42.77	37.31	50.01	78.03	97.57	106.15	118.17	
	Sichuan	67.07	71.35	67.85	69.04	70.89	79.29	88.00	95.61	96.25	62.23	56.96	43.51	43.85	43.72	53.58	72.62	84.49	79.05	84.99	
	Xizang		1.00	1.00	0.01	0.01	0.01									0.02					
	Yunnan	20.55	21.81	22.27	21.94	23.79	24.02	26.00	28.03	30.72	32.97	30.91	26.64	22.16	23.94	30.66	40.60	22.16	64.62	73.39	
SouthWest Total		119.72	129.12	128.07	128.22	136.31	148.61	165.00	178.36	188.40	190.47	181.82	138.15	136.55	130.53	160.27	216.99	234.30	283.83	316.99	
Grand Total		979.86	1,055.13	1,080.86	1,087.43	1,116.39	1,181.01	1,242.00	1,360.51	1,384.54	1,372.81	1,284.77	1,093.86	1,054.08	1,197.06	1,380.30	1,699.88	1,955.58	2,218.28	2,357.99	

N.B. Blanks indicate zero or missing values, "0" indicates a value <0.01. The sum of individual province production does not sum to the official national total.

Table 2A.2.2 Commercial Energy Production by Province and Energy Source

Crude Oil, Mt

Sum of EBAmount		EYear																		
scoProvReg	EBScopeName	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East	Anhui	0.03	0.02	0.02	0.03	0.04	0.04			0.08	0.09									
	Jiangsu	0.75	0.83	0.86	0.93	0.92	0.95	1.03	1.01	1.22	1.35	1.26	1.45	1.55	1.57	1.57	1.66	1.69	1.65	1.88
	Shandong	33.30	33.35	33.51	33.55	33.46	32.70	30.90	30.06	29.12	28.01	27.31	26.65	26.76	26.68	26.72	26.66	26.74	26.95	27.55
	Shanghai												0.55	0.25	0.59	0.47	0.38	0.32	0.25	0.21
East Total		34.08	34.21	34.39	34.51	34.42	33.69	31.93	31.08	30.42	29.46	28.57	28.65	28.56	28.84	28.76	28.70	28.75	28.84	29.65
North	Hebei	6.31	5.78	5.71	5.38	4.19	5.03	5.10	5.17	5.24	4.15	5.37	5.31	5.18	5.13	5.03	5.10	5.38	5.62	6.11
	Inner Mongolia				1.00	1.00	1.01		1.76	1.50	1.32	1.28	1.15	0.91	0.85	0.83	0.92	1.13	1.47	1.72
	Tianjin	4.63	4.70	4.70	4.75	4.92	5.17	5.89	6.21	6.47	6.46	6.91	6.87	7.64	9.70	12.16	13.16	14.46	17.83	19.43
North Total		10.93	10.48	10.40	11.13	10.11	11.21	10.99	13.14	13.21	11.93	13.57	13.33	13.73	15.69	18.02	19.19	20.97	24.92	27.26
NorthEast	Heilongjiang	55.70	55.56	55.62	55.62	55.66	55.90	56.01	56.02	56.02	56.09	55.72	54.50	53.07	51.61	50.29	48.40	46.66	44.95	43.41
	Jilin	3.15	3.42	3.57	3.42	3.44	3.38	3.32	3.43	3.74	4.05	3.97	3.58	3.48	3.89	4.22	4.76	4.81	5.51	6.22
	Liaoning	12.67	13.45	13.69	13.74	13.88	14.20	15.02	15.53	15.04	15.04	14.52	14.30	14.01	13.85	13.51	13.32	12.83	12.61	12.26
NorthEast Total		71.53	72.43	72.88	72.79	72.98	73.48	74.35	74.97	74.80	75.18	74.21	72.39	70.56	69.35	68.02	66.49	64.31	63.07	61.89
NorthWest	Gansu	1.48	1.47	1.46	1.62	1.98	1.48	1.57	2.68	3.22	1.86	4.43	0.43	0.46	0.54	2.54	2.56	2.84	3.05	3.32
	Ningxia	0.32	0.29	0.26	0.23	0.21	0.21	0.12	0.39	0.56	0.80	1.11	1.28	1.39	0.04		2.21	0.04	0.04	0.05
	Qinghai	0.64	0.73	0.81	1.02	1.06	1.08	1.13	1.22	1.40	1.60	1.76	1.90	2.00	2.06	2.14	2.20	2.22	2.21	2.23
	Shaanxi	0.43	0.55	0.70	0.85	1.02	1.13	1.50	1.67	2.11	2.43	3.21	4.97	5.66	6.89	7.99	12.54	15.28	17.78	19.89
	Xinjiang	6.17	6.44	6.95	7.83	8.32	10.66	11.57	13.00	14.69	16.29	16.28	17.40	18.48	19.47	20.36	21.41	22.53	24.08	24.75
NorthWest Total		9.05	9.47	10.18	11.55	12.58	14.56	15.89	18.95	21.98	22.98	26.80	25.97	28.00	29.00	33.03	40.93	42.91	47.17	50.24
SouthCentral	Guangdong	0.45	0.35	0.49	1.54	2.86	3.51	4.84	6.51	12.89	14.18	13.61	12.84	13.93	12.38	12.64	12.76	14.82	14.70	13.38
	Guangxi	0.09	0.11	0.12	0.13	0.03	0.03	0.30	0.10	0.04	0.04	0.03	0.04	0.03	0.03	0.04	0.03	0.04	0.03	0.03
	Hainan											0.02				0.05			0.00	0.11
	Henan	9.79	9.53	8.82	8.48	8.10	7.64	6.88	6.02	5.87	5.87	5.88	5.65	5.62	5.67	5.68	5.48	5.23	5.07	4.92
	Hubei	1.02	0.93	0.83	0.73	0.77	0.81	0.87	0.85	0.87	0.82	0.76	0.79	0.75	0.77	0.78	0.78	0.78	0.78	0.80
SouthCentral Total		11.34	10.92	10.26	10.88	11.76	11.99	12.89	13.48	19.66	20.91	20.29	19.32	20.34	18.85	19.19	19.04	20.87	20.59	19.24
SouthWest	Sichuan	0.12	0.13	0.16	0.14	0.14	0.17	0.17	0.17	0.21	0.23	0.22	0.21	0.17	0.15	0.14	0.14	0.15	0.14	0.18
	Yunnan					0.12	0.12		0.10	0.07	0.05	0.05	0.03						0.00	0.00
SouthWest Total		0.12	0.13	0.16	0.14	0.26	0.29	0.17	0.27	0.28	0.28	0.27	0.24	0.17	0.15	0.14	0.14	0.15	0.14	0.18
Grand Total		137.05	137.64	138.27	140.99	142.10	145.22	146.22	151.89	160.34	160.74	163.71	159.90	161.36	161.87	167.16	174.49	177.95	184.73	188.46

N.B. Blanks indicate zero or missing values, "0" indicates a value <0.01. The sum of individual province production does not sum to the official national total.

Table 2A.2.3 Commercial Energy Production by Province and Energy Source

Natural Gas, bm3

Sum of EBAmount		EByear																		
scoProvReg	scoScopeName	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East	Jiangsu	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.05	0.06	0.06
	Shandong	1.42	1.54	1.44	1.44	1.44	1.37	1.31	1.29	1.19	1.00	0.92	0.73	0.69	0.85	0.75	0.81	0.92	0.93	0.86
	Shanghai														0.11	0.26	0.33	0.43	0.50	0.57
	Zhejiang														0.00					
	Jiangxi																			0.02
East Total		1.46	1.58	1.48	1.47	1.47	1.40	1.33	1.30	1.21	1.01	0.94	0.86	0.98	1.20	1.21	1.34	1.54	1.59	1.66
North	Hebei	0.22	0.23	0.29	0.29	0.33	0.32	0.33	0.35	0.37	0.38	0.37	0.42	0.51	0.52	0.59	0.63	0.66	0.69	0.66
	Inner Mongolia														0.45	0.70	0.85	1.16	1.72	3.86
	Shanxi		0.08	0.06	0.06	0.07	0.06	0.05	0.05	0.05	0.09	0.10	0.11	0.11	0.16	0.19	0.25	0.03	0.32	0.60
	Tianjin	0.39	0.38	0.37	0.36	0.41	0.65	0.78	0.76	0.93	0.76	0.76	0.85	0.91	0.90	0.89	0.08	0.87	0.88	1.05
North Total		0.61	0.68	0.72	0.71	0.80	1.03	1.17	1.15	1.34	1.23	1.24	1.38	1.99	2.28	2.52	2.12	3.28	5.75	7.61
NorthEast	Heilongjiang	2.23	2.25	2.25	2.27	2.29	2.23	2.32	2.59	2.33	2.34	2.33	2.24	2.30	2.20	2.02	2.10	2.03	2.44	2.45
	Jilin	0.10	0.10	0.10	0.13	0.17	0.21	0.22	0.18	0.21	0.30	0.28	0.30	0.30	0.30	0.24	0.23	0.34	0.54	0.24
	Liaoning	1.90	2.00	2.04	2.06	2.11	2.08	2.12	2.11	1.96	2.08	1.56	1.43	1.47	1.47	1.33	1.33	1.03	1.17	1.19
NorthEast Total		4.22	4.35	4.39	4.45	4.57	4.51	4.65	4.89	4.50	4.71	4.17	3.97	4.07	3.98	3.59	3.66	3.41	4.16	3.89
NorthWest	Gansu	0.03	0.03	0.03	0.07	0.04	0.03		0.11	0.12	0.18	0.05	0.01	0.02	0.04	0.09	0.06	0.02	0.16	0.15
	Ningxia	0.01	0.01	0.01	0.00	0.01	0.01	0.04	0.06	0.06	0.03	0.01	0.01	0.02	0.01		0.09		0.00	
	Qinghai	0.03	0.04	0.05	0.08	0.05	0.05		0.06	0.12	0.22	0.27	0.35	0.39	0.59	1.15	1.54	1.79	2.23	2.50
	Shaanxi		0.00	0.01	0.03	0.03	0.03		0.02	0.02	0.10	0.43	1.24	2.11	3.44	4.00	5.19	7.46	8.06	8.05
	Xinjiang	0.46	0.50	0.50	0.55	0.68	0.96	0.04	1.15	1.41	2.13	2.38	3.11	3.54	4.17	4.85	5.03	5.75	10.66	16.76
NorthWest Total		0.53	0.58	0.60	0.73	0.81	1.07	0.08	1.41	1.72	2.65	3.14	4.72	6.07	8.25	10.09	11.90	15.02	21.11	27.46
SouthCentral	Guangdong								0.10	2.23	3.68	3.46	3.75	0.35	3.29	3.16	2.73	4.28	4.48	4.90
	Hainan											0.37						0.17	0.21	
	Henan	1.33	1.32	1.39	1.30	1.26	1.17	1.24	1.14	1.14	1.19	1.32	1.41	1.50	1.74	1.94	2.01	1.86	2.01	1.87
	Hubei	0.06	0.07	0.08	0.06	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.09	0.09	0.08	0.09	0.09	0.09	0.11	0.12
SouthCentral Total		1.39	1.39	1.47	1.37	1.34	1.25	1.32	1.32	3.44	4.94	5.23	5.25	1.93	5.10	5.18	4.84	6.23	6.77	7.08
SouthWest	Chongqing											0.24	4.95	4.57	5.03	5.57	5.85	6.20	4.70	5.71
	Guizhou	0.02	0.02	0.03	0.03	0.04	0.11	0.16	0.18	0.12	0.10	0.08	0.07	0.07	0.07	0.05	0.05			
	Sichuan	6.03	6.46	6.62	7.31	6.71	7.29	7.52	7.66	8.04	8.00	8.57	8.82	8.87	9.45	10.22	10.89	11.89	13.77	16.00
	Xizang												0.29							
	Yunnan					0.04	0.11	0.16	0.18	0.12	0.10	0.09	0.09	0.01	0.01	0.02	0.02	0.01	0.02	0.02
SouthWest Total		6.05	6.48	6.65	7.34	6.80	7.51	7.84	8.03	8.28	8.44	13.68	13.84	13.97	15.10	16.14	17.16	16.60	19.51	23.11
Grand Total		14.26	15.05	15.30	16.07	15.79	16.77	16.39	18.09	20.49	22.97	28.39	30.02	29.01	35.90	38.73	41.01	46.08	58.89	70.81

N.B. Those provinces with no natural gas production are not displayed. Blanks indicate zero or missing values, "0" indicates a value <0.01. The sum of provincial production as reported in the provincial energy balances published in the *China Energy Statistical Yearbook* differs from the total production listed in the national energy balance. Large discrepancies exist in the reporting of production from Inner Mongolia and Chongqing, resulting in a larger total than officially reported.

Table 2A.2.4 Commercial Energy Production by Province and Energy Source

Primary Electricity, TWh

Sum of EBAmount		EYYear																		
scoProvReg	EBScopeName	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East	Anhui	1.12	1.15	1.33	1.51	0.93	1.11	1.20	1.14	1.16	0.97	0.99	1.07	0.46	0.63	1.05	1.15	0.09	1.35	1.23
	Fujian	6.72	6.84	7.81	6.27	9.47	8.98	12.10	15.49	15.13	19.41	18.48	18.53	19.68	23.44	22.44	18.90	15.48	29.10	34.85
	Jiangsu	0.06	0.05	0.05	0.05	0.03	0.06		0.20	0.05	0.05	0.06	0.03	0.05	0.04	0.10	0.29	0.33	0.33	1.86
	Jiangxi	3.20	3.06	2.78	3.19	3.68	4.26	5.50	5.51	4.70	6.05	6.04	5.31	5.35	5.43	6.15	4.76	8.47	8.99	9.54
	Shandong	0.03	0.01	0.04	0.08	0.02	0.04	0.10	0.04	0.08	0.06	0.06	0.06	0.06	0.09	0.09	0.00			
	Shanghai																	10.00	0.02	0.04
	Zhejiang	5.57	6.36	5.60	5.88	5.85	7.66	7.99	10.03	7.46	8.15	11.16	10.63	11.01	13.04	19.50	26.05	30.63	36.22	36.24
East Total		16.70	17.48	17.62	16.99	19.98	22.10	26.89	32.41	28.57	34.69	36.79	35.62	36.61	42.66	49.33	51.15	64.99	76.01	83.76
North	Beijing	0.19	0.22	0.20	0.22	0.24	0.16	0.20	0.32	0.69	0.92	0.92	0.94	0.91	0.10	0.09	0.08	0.01	0.14	0.06
	Hebei	0.57	0.66	0.70	0.63	0.54	0.94	1.20	1.35	1.54	1.06	0.81	0.86	0.49	0.36	0.36	0.32	0.45	0.61	0.57
	Inner Mongolia	0.06	0.05	0.13	0.12	0.11	0.11	0.20	0.14	0.13	0.14	0.25	0.24	0.71	0.85	1.12	0.82	1.09	1.51	2.04
	Shanxi	0.59	0.80	0.72	0.58	0.60	0.70	0.70	0.71	0.74	0.58	0.60	1.14	1.60	1.67	1.92	0.19	2.03	2.03	2.39
	Tianjin			0.02	0.02	0.02	0.02		0.02											
North Total		1.41	1.73	1.77	1.58	1.51	1.93	2.30	2.54	3.09	2.70	2.58	3.19	3.71	2.98	3.49	1.41	3.57	4.29	5.07
NorthEast	Heilongjiang	0.51	0.42	0.54	0.58	0.63	0.55	0.80	0.67	0.55	1.09	1.33	0.92	1.32	1.27	1.51	1.13	1.62	1.34	1.26
	Jilin	5.89	3.11	4.58	6.43	3.87	4.99	6.10	8.32	6.09	4.07	4.02	4.49	4.78	5.76	0.50	3.75	5.83	7.89	5.45
	Liaoning	2.87	1.66	3.55	4.04	3.24	2.74	1.90	4.17	4.52	2.88	2.16	1.55	1.49	2.27	1.42	0.20	3.86	5.71	4.83
NorthEast Total		9.27	5.19	8.67	11.05	7.74	8.28	8.80	13.16	11.16	8.04	7.51	6.96	7.59	9.30	3.43	5.08	11.31	14.94	11.54
NorthWest	Gansu	7.64	10.52	10.65	9.37	8.71	10.21	10.90	9.62	8.43	8.25	8.86	11.75	11.44	11.80	10.61	10.81	12.24	16.21	17.17
	Ningxia	0.84	1.23	1.10	0.84	0.84	1.05	1.00	0.93	0.83	0.70	0.80	0.98	0.82	0.76	0.78		0.45	1.77	1.88
	Qinghai	3.05	4.41	5.73	4.40	3.45	5.31	5.70	4.26	3.35	5.02	6.66	8.75	10.77	9.28	8.90	7.56	10.68	15.75	20.52
	Shaanxi	1.03	1.30	1.26	1.65	3.02	4.16	3.40	2.54	3.29	2.25	3.12	2.26	3.60	2.84	2.84	4.56	4.64	4.67	3.67
	Xinjiang	1.21	1.31	1.43	1.47	1.76	2.02	2.20	2.32	2.45	2.76	2.97	3.20	3.23	3.57	3.65	3.62	3.96	4.88	5.71
NorthWest Total		13.77	18.77	20.18	17.73	17.77	22.75	23.20	19.66	18.36	18.97	22.41	26.93	29.85	28.25	26.77	26.55	31.97	43.28	48.94
SouthCentral	Guangdong	7.00	7.02	7.72	5.92	9.28	11.35	11.90	23.74	24.90	27.82	28.23	25.27	30.41	33.42	37.93	47.84	42.74	43.83	48.45
	Guangxi	6.06	5.86	6.89	6.37	7.40	10.08	11.50	13.83	13.88	15.66	14.60	15.40	16.89	17.61	18.63	19.26	17.23	19.58	24.37
	Hainan	0.50	0.78	0.78	0.70	0.76	0.66	1.00	1.16	1.22	1.49	0.81	1.06	1.47	1.62	1.37	1.45	1.18	1.05	0.95
	Henan	1.28	1.69	1.54	1.53	1.48	1.54	1.70	1.56	1.68	1.23	1.37	1.58	2.27	3.51	4.84	5.40	7.02	6.79	7.83
	Hubei	20.91	25.37	24.19	22.55	22.70	25.57	24.50	25.88	27.12	24.58	26.22	25.15	29.91	28.27	28.76	38.78	68.97	86.03	76.44
	Hunan	9.04	9.51	10.61	10.76	10.62	12.63	14.30	15.80	16.84	19.41	19.59	18.24	21.04	21.34	25.27	24.30	27.74	24.36	27.64
SouthCentral Total		44.78	50.24	51.73	47.83	52.25	61.82	64.90	81.97	85.64	90.19	90.81	86.68	101.99	105.77	116.80	137.02	164.88	181.64	185.67
SouthWest	Chongqing										3.14	15.87	16.45	20.02	4.36	5.50	5.55	6.44	5.90	6.05
	Guizhou	4.95	4.12	3.75	4.43	5.21	5.43	8.50	11.17	10.37	11.08	11.99	13.62	13.35	21.17	22.15	20.39	21.63	14.18	21.43
	Sichuan	13.20	14.68	15.14	15.51	16.83	19.59	21.00	26.05	26.88	24.51	25.29	30.35	36.78	42.24	45.63	50.00	58.90	65.33	68.45
	Xizang	0.26	0.27	0.32	0.25	0.26	0.38		0.30	0.29	0.45		0.52							
	Yunnan	4.81	5.91	7.55	9.31	9.13	12.51	13.40	16.21	18.25	16.76	17.00	18.49	21.61	21.65	26.30	28.09	21.61	34.92	35.57
SouthWest Total		23.22	24.98	26.76	29.50	31.42	37.90	42.90	53.73	55.79	55.95	70.14	79.44	91.76	89.41	99.59	104.03	108.57	120.33	131.50
Grand Total		109.15	118.39	126.72	124.67	130.66	154.78	168.99	203.47	202.60	210.53	230.23	238.82	271.49	278.36	299.40	325.24	385.30	440.48	466.47

N.B. Blanks indicate zero or missing values, "0" indicates a value <0.01. The sum of provincial production as reported does not equal the official national total.

Table 2A.2.5 Commercial Energy Production by Province and Energy Source

Fossil-fired electricity, TWh

Sum of EBAmount		EBYear																		
scoProvRe	EBScopeName	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East	Anhui	16.67	16.13	18.09	20.04	22.69	25.56	28.60	29.76	31.42	31.96	30.16	30.57	36.01	40.77	45.52	54.57	6.03	63.49	72.21
	Fujian	4.69	6.12	5.85	8.90	8.19	10.55	10.80	10.66	13.44	11.61	13.71	17.22	20.85	21.17	30.85	42.15	50.49	48.69	55.58
	Jiangsu	34.47	36.58	40.40	44.07	48.09	53.63	63.20	68.70	75.64	77.70	77.88	84.44	97.12	103.98	116.70	133.40	161.46	211.67	251.80
	Jiangxi	8.37	8.91	9.36	9.80	10.68	11.05	12.20	12.14	13.63	11.93	12.10	13.47	14.88	16.19	18.65	27.33	30.34	30.56	34.75
	Shandong	37.94	41.97	44.59	49.56	56.60	61.05	67.70	73.24	78.77	84.88	78.82	80.23	98.22	153.23	119.29	135.52	169.37	198.97	229.39
	Shanghai	28.06	27.83	28.33	30.48	34.76	37.33	39.90	40.68	42.93	45.92	48.24	49.97	55.78	57.64	61.60	69.39	71.07	74.07	72.60
East Total	Zhejiang	13.46	13.67	15.27	18.35	22.57	24.67	26.00	30.69	37.38	40.43	42.75	49.10	58.65	65.99	69.29	83.04	95.26	109.42	140.35
		143.65	151.22	161.89	181.21	203.58	223.84	248.40	265.86	293.21	304.43	303.66	325.00	381.49	458.95	461.88	545.40	584.02	736.87	856.67
North	Beijing	10.92	11.72	12.34	12.96	13.99	13.95	12.80	12.97	13.36	13.72	14.72	16.49	18.07	17.45	18.03	18.83	2.00	20.98	20.97
	Hebei	34.06	35.90	36.19	40.43	45.17	49.88	53.80	57.54	63.60	68.35	68.04	76.32	83.95	92.56	101.03	108.57	125.09	133.25	140.83
	Inner Mongolia	13.79	15.32	16.88	18.78	22.12	23.41	25.90	28.97	32.26	33.82	34.79	37.82	43.21	45.70	50.73	63.95	81.67	101.02	139.57
	Shanxi	27.18	29.51	30.69	33.56	37.82	41.09	45.00	49.89	52.69	54.03	54.80	55.85	60.87	69.36	82.20	9.46	105.78	129.17	150.25
	Tianjin	9.11	9.66	9.49	9.01	9.79	12.65	13.50	13.34	14.08	17.81	17.35	19.09	21.91	22.45	27.61	32.56	34.32	37.64	36.67
		95.06	102.11	105.59	114.74	128.88	140.97	151.00	162.71	175.99	187.72	189.71	205.57	228.02	247.52	279.61	233.37	348.87	422.05	488.30
NorthEast	Heilongjiang	24.17	27.49	28.98	31.05	34.06	36.68	37.40	36.51	38.19	43.29	41.17	40.23	41.35	44.36	44.42	49.54	54.78	60.28	64.23
	Jilin	10.69	12.64	12.86	13.55	16.54	19.50	19.90	20.08	22.89	23.94	23.08	25.47	25.24	27.32	30.17	29.60	33.11	35.45	40.11
	Liaoning	38.49	40.21	39.84	40.62	45.66	47.78	48.50	49.61	53.79	60.64	57.92	56.43	61.03	63.78	74.21	7.79	83.39	85.02	95.69
NorthEast Total		73.35	80.34	81.68	85.22	96.26	103.96	105.80	106.19	114.88	127.87	122.17	122.13	127.62	135.45	148.80	86.93	171.28	180.75	200.03
NorthWest	Gansu	5.87	5.80	6.49	9.44	11.32	12.58	14.00	14.17	15.13	16.39	16.51	14.49	16.59	18.45	23.43	29.60	33.49	33.97	36.02
	Ningxia	4.17	4.19	4.50	5.47	6.82	7.70	8.70	9.85	10.33	10.64	10.26	10.25	12.84	14.27	16.32	19.90		29.52	36.70
	Qinghai	1.55	1.41	1.29	1.58	1.53	1.52	1.60	1.79	2.46	3.41	3.39	2.69	2.61	4.50	5.05	6.70	6.19	5.56	7.20
	Shaanxi	12.79	13.56	13.71	14.78	15.90	17.44	18.80	21.13	23.58	24.71	22.10	24.15	26.64	27.12	29.42	40.91	44.20	50.87	59.70
	Xinjiang	4.26	4.99	5.55	6.37	6.93	7.56	8.40	9.65	11.15	12.30	12.80	13.73	15.07	16.19	17.57	19.84	22.63	26.13	29.90
		28.63	29.94	31.53	37.64	42.50	46.80	51.50	56.59	62.65	67.45	65.07	65.31	73.75	80.53	91.80	116.94	106.51	146.06	169.53
SouthCent	Guangdong	19.80	22.82	26.68	33.58	36.62	47.28	65.20	58.36	65.96	70.30	75.63	88.74	104.94	109.89	123.08	141.74	169.39	184.03	198.74
	Guangxi	4.18	5.07	5.67	7.18	7.91	7.37	7.20	7.90	8.74	8.07	9.80	9.95	12.02	12.11	13.07	17.03	20.14	25.00	27.97
	Hainan	0.37	0.46	0.62	0.95	1.22	1.81	1.90	2.04	2.07	1.98	68.04	2.81	2.76	2.87	3.64	4.49	5.69	7.15	8.51
	Henan	27.38	28.59	30.37	34.12	39.07	42.53	46.80	53.20	57.72	61.85	61.74	64.31	68.00	75.76	85.89	96.88	120.05	134.68	151.48
	Hubei	9.01	8.00	9.70	12.40	14.02	14.72	18.10	19.37	20.49	24.46	24.39	29.23	26.68	30.83	33.94	39.33	39.05	44.57	56.66
	Hunan	8.27	8.82	9.53	11.36	13.86	14.40	14.90	17.49	17.32	15.30	15.42	16.61	16.57	19.38	20.02	29.48	37.29	40.31	47.18
SouthCentral Total		69.02	73.76	82.57	99.59	112.69	128.10	154.10	158.36	172.29	181.95	255.02	211.65	230.96	250.85	279.64	328.94	391.60	435.74	490.54
SouthWest	Chongqing										11.68	10.64	11.78	7.23	18.58	17.15	16.86	15.48	18.00	23.18
	Guizhou	4.36	5.54	6.64	7.17	7.73	9.23	11.20	11.93	14.50	14.49	17.19	20.92	22.50	26.86	32.56	43.27	49.68	56.96	76.04
	Sichuan	16.56	18.01	19.13	22.45	25.11	27.50	31.50	31.55	34.92	24.68	22.29	18.86	18.72	21.10	27.88	32.78	34.63	36.54	43.59
	Xizang	0.01	0.01	0.01	0.01	0.01	0.01		0.03	0.02	0.13		0.11							
	Yunnan	5.42	5.50	5.03	4.77	6.45	7.20	6.90	6.64	7.12	8.55	9.46	11.33	10.14	14.31	16.40	19.39	10.14	27.50	39.79
SouthWest Total		26.35	29.06	30.80	34.41	39.30	43.95	49.60	50.14	56.57	59.53	59.58	63.00	58.59	80.84	93.99	112.30	109.92	139.00	182.60
Grand Total		436.06	466.42	494.06	552.79	623.19	687.62	760.40	799.85	875.59	928.94	995.20	992.64	1,100.43	1,254.14	1,355.70	1,423.88	1,712.20	2,060.47	2,387.67

N.B. Blanks indicate zero or missing values, "0" indicates a value <0.01. The sum of provincial production as reported does not equal the official national total.

Total Electricity, TWh

N.B. Blanks indicate zero or missing values. *0* indicates a value ≤ 0.01 . The sum of provincial production as reported does not equal the official national total.

Table 2A.2.7 Commercial Energy Production by Province and Energy Source

Total Primary Energy, Mtce

Sum of EBMtce		EBYear																		
scoProvRe	EBScopeName	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
East	Anhui	22.28	22.74	23.45	22.67	24.51	26.31	29.76	32.19	36.90	35.48	33.05	33.83	34.38	38.43	44.84	48.49	58.17	62.19	59.98
	Fujian	8.89	9.51	9.76	8.65	10.32	10.64	12.03	14.36	14.45	13.63	13.15	17.27	17.93	19.41	20.84	20.06	19.35	26.04	28.46
	Jiangsu	17.80	18.72	18.49	19.03	18.91	19.30	19.35	20.43	20.39	19.86	18.83	18.48	19.97	19.79	20.84	22.26	22.33	22.69	25.29
	Jiangxi	15.92	15.97	15.60	16.45	16.39	16.74	18.64	22.78	19.30	17.18	17.49	14.50	15.11	13.03	12.30	12.29	20.36	21.95	23.76
	Shandong	89.21	90.42	92.65	93.15	95.12	97.17	101.66	107.78	107.20	106.42	104.48	103.41	96.67	115.72	132.67	143.93	144.04	139.94	140.91
	Shanghai						0.01						0.94	1.04	1.33	1.32	1.28	5.35	1.28	1.38
	Zhejiang	3.27	3.60	3.24	3.37	3.39	4.07	3.94	4.79	3.89	4.11	5.16	4.88	4.97	5.78	10.35	11.02	12.78	14.94	14.74
East Total		157.37	160.96	163.20	163.32	168.65	174.26	185.38	202.33	202.13	196.69	192.16	193.32	190.07	213.50	243.16	259.32	282.39	289.03	294.52
North	Beijing	6.55	7.35	7.26	7.21	7.34	7.58	7.72	7.24	7.52	7.60	7.44	6.04	5.29	5.98	6.33	6.87	7.63	6.80	4.61
	Hebei	55.48	53.98	53.41	52.19	51.33	53.52	56.77	66.24	68.59	63.12	63.74	63.42	56.46	56.63	58.61	60.05	70.53	70.89	69.57
	Inner Mongolia	26.69	31.31	34.05	36.63	37.45	31.89	44.28	52.95	54.44	61.22	57.41	52.23	53.93	60.78	84.67	108.20	155.97	190.68	223.50
	Shanxi	176.23	196.78	204.55	208.53	212.29	221.81	231.69	248.33	249.42	242.00	225.16	178.36	180.38	198.38	263.51	323.37	364.01	396.99	416.90
	Tianjin	7.14	7.23	7.21	7.28	7.59	8.27	9.47	9.89	10.48	10.29	10.89	10.95	12.14	15.07	18.57	18.94	21.84	26.66	29.18
North Total		272.08	296.65	306.48	311.84	316.01	323.06	349.43	384.64	390.43	384.22	364.64	311.00	308.20	336.83	431.68	517.42	619.98	692.03	743.76
NorthEast	Heilongjiang	134.03	136.99	142.01	143.59	142.83	135.45	138.48	140.49	138.02	144.58	133.95	125.77	118.31	113.81	117.22	130.63	136.98	137.59	139.25
	Jilin	22.92	23.70	25.72	25.93	24.59	24.44	25.35	27.37	26.64	26.94	22.89	21.14	20.17	20.85	31.67	24.74	28.19	31.16	32.87
	Liaoning	54.57	58.12	60.14	61.39	62.48	63.93	64.33	66.87	69.08	67.44	66.70	57.10	54.40	54.58	58.65	62.82	68.70	69.31	70.40
NorthEast Total		211.52	218.81	227.87	230.91	229.89	223.81	228.16	234.73	233.74	238.97	223.54	204.02	192.88	189.24	207.55	218.18	233.87	238.07	242.52
NorthWest	Gansu	14.94	16.49	17.61	17.21	17.42	19.13	21.64	25.47	24.02	22.60	26.55	18.88	16.96	18.57	20.63	28.97	34.30	36.96	39.19
	Ningxia	9.58	10.48	11.12	10.69	10.49	10.47	10.62	11.59	12.75	13.39	13.23	13.18	11.77	11.74	12.50	18.95	17.61	19.77	24.22
	Qinghai	4.10	5.02	5.81	5.39	4.99	5.38	6.06	5.53	5.64	6.96	7.85	8.74	9.30	8.68	9.97	10.47	12.81	16.45	19.03
	Shaanxi	20.78	23.80	25.28	25.41	27.15	27.34	29.94	33.82	37.34	39.84	38.18	36.01	39.30	50.50	59.74	85.94	100.38	146.89	156.37
	Xinjiang	22.87	24.83	26.19	27.61	29.24	34.41	36.05	40.48	45.19	48.82	48.55	50.26	52.46	54.98	59.19	63.76	68.23	78.74	92.30
NorthWest Total		72.27	80.62	86.01	86.30	89.28	96.74	104.31	116.88	124.94	131.61	134.36	127.08	129.80	144.48	162.03	208.09	233.33	298.81	331.11
SouthCentral	Guangdong	10.09	10.35	10.17	11.25	14.65	16.39	18.15	26.67	38.32	42.41	40.91	37.13	35.63	36.93	39.16	45.99	51.33	48.09	45.21
	Guangxi	9.97	10.66	9.95	9.85	10.84	12.66	13.26	16.63	15.73	15.81	14.58	12.10	11.92	11.54	10.70	11.80	10.73	12.96	14.75
	Hainan	0.20	0.32	0.32	0.30	0.32	0.28	0.40	0.48	0.50	0.61	0.85	0.43	0.59	0.65	0.56	0.59	0.48	0.65	0.81
	Henan	75.16	79.31	79.92	78.55	78.31	79.35	80.72	84.54	87.56	85.59	77.87	67.81	65.05	72.15	83.49	107.13	121.77	146.63	152.14
	Hubei	17.13	19.08	17.66	16.03	16.69	18.65	19.81	22.82	23.27	22.03	21.25	17.91	18.98	17.98	17.76	21.47	33.61	42.79	40.96
	Hunan	29.08	30.19	28.36	28.01	30.00	35.18	40.76	46.11	43.17	39.33	38.99	26.07	23.54	34.85	37.72	40.52	47.29	59.14	60.44
SouthCentral Total		141.62	149.92	146.37	143.98	150.82	162.51	173.11	197.25	208.55	205.78	194.45	161.43	155.72	174.11	189.39	227.50	265.20	310.25	314.32
SouthWest	Chongqing										22.52	35.70	36.88	38.70	31.74	33.81	31.92	30.63	34.26	40.75
	Guizhou	24.95	26.65	27.93	28.42	31.88	34.68	40.06	43.82	48.21	51.70	51.80	34.34	36.02	35.29	44.72	64.01	78.40	81.52	93.03
	Sichuan	61.42	65.65	63.59	65.48	66.54	74.46	81.56	89.23	90.58	65.31	62.60	55.35	58.21	61.05	70.48	86.73	100.14	101.36	109.86
	Xizang	0.10	0.12	0.14	0.11	0.11	0.16		0.12	0.12	0.18		0.60			0.01	0.02			
	Yunnan	16.62	17.96	18.95	19.43	20.91	22.53	24.41	26.95	29.57	30.51	29.13	26.65	24.56	25.85	32.54	40.96	25.50	62.64	68.35
SouthWest Total		103.08	110.38	110.62	113.43	119.44	131.82	146.03	160.12	168.47	170.23	179.22	153.83	157.49	153.93	181.57	223.64	234.67	279.77	311.99
Grand Total		957.95	1,017.33	1,040.55	1,049.79	1,074.09	1,112.20	1,186.42	1,295.96	1,328.27	1,327.49	1,288.38	1,150.68	1,134.16	1,212.08	1,415.39	1,654.14	1,869.44	2,107.96	2,238.23

N.B. Blanks indicate zero or missing values. "0" indicates a value <0.01. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.1 Net Coal Usage by Province, 2000

Mt

Sum of EBAmount		EBProcess		Net Trade
scoProvRegion	EBScopeName	Coal Production	Coal Consumption	
East	Anhui	47.90	58.93	11.04
	Fujian	13.97	21.69	7.71
	Jiangsu	24.79	87.70	62.91
	Jiangxi	18.14	22.46	4.32
	Shandong	80.39	87.05	6.66
	Shanghai		45.02	45.02
	Zhejiang	0.73	50.28	49.55
East Total		185.91	373.12	187.21
North	Beijing	6.90	26.47	19.57
	Hebei	67.47	118.90	51.43
	Inner Mongolia	72.47	59.73	(12.75)
	Shanxi	251.52	26.62	(224.89)
	Tianjin		24.68	24.68
North Total		398.36	256.40	(141.96)
NorthEast	Heilongjiang	54.38	54.58	0.20
	Jilin	18.00	42.13	24.12
	Liaoning	44.55	95.82	51.27
NorthEast Total		116.94	192.53	75.60
NorthWest	Gansu	16.33	24.80	8.48
	Ningxia	16.00		(16.00)
	Qinghai	2.20	5.22	3.01
	Shaanxi	37.75	27.66	(10.09)
	Xinjiang	27.99	27.03	(0.96)
NorthWest Total		100.27	84.71	(15.56)
SouthCentral	Guangdong	4.15	59.14	54.99
	Guangxi	7.08	22.28	15.21
	Hainan		1.91	1.91
	Henan	75.78	52.79	(22.98)
	Hubei	7.98	60.51	52.52
	Hunan	21.06	30.66	9.60
SouthCentral Total		116.05	227.30	111.25
SouthWest	Chongqing	27.78	29.42	1.64
	Guizhou	42.77	29.98	(12.79)
	Sichuan	43.85	46.44	2.59
	Yunnan	22.16	28.31	6.15
SouthWest Total		136.55	134.15	(2.40)
Grand Total		1,054.08	1,268.21	214.13

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.2. Net Coal Usage by Province, 2001

Mt

EBYear	2001
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Sum of EBAmount		EBProcess	EBMaterial	Net Trade
scoProvRegion	EBScopeName	Indigenous Production	Total Primary Energy S	
		Coal Raw	Total Coal	
East	Anhui	53.47	63.47	9.99
	Fujian	12.93	22.10	9.17
	Jiangsu	24.51	89.63	65.12
	Jiangxi	15.17	23.14	7.96
	Shandong	106.88	110.93	4.05
	Shanghai		46.01	46.01
	Zhejiang	0.72	55.27	54.55
East Total		213.69	410.55	196.86
North	Beijing	8.32	25.71	17.39
	Hebei	67.86	126.41	58.55
	Inner Mongolia	81.63	63.38	(18.25)
	Shanxi	276.60	26.56	(250.04)
	Tianjin		26.38	26.38
North Total		434.41	268.44	(165.96)
NorthEast	Heilongjiang	51.21	51.56	0.35
	Jilin	17.59	44.84	27.25
	Liaoning	44.68	90.84	46.15
NorthEast Total		113.48	187.24	73.76
NorthWest	Gansu	18.19	25.51	7.32
	Ningxia	16.00		(16.00)
	Qinghai	1.69	6.41	4.72
	Shaanxi	48.92	31.33	(17.59)
	Xinjiang	28.20	27.38	(0.82)
NorthWest Total		112.99	90.63	(22.36)
SouthCentral	Guangdong	1.90	60.88	58.98
	Guangxi	61.35	22.89	(38.46)
	Hainan		1.99	1.99
	Henan	84.48	64.03	(20.45)
	Hubei	7.50	60.96	53.46
	Hunan	36.73	41.00	4.27
SouthCentral Total		191.97	251.75	59.79
SouthWest	Chongqing	25.56	27.36	1.80
	Guizhou	37.31	26.72	(10.59)
	Sichuan	43.72	46.50	2.78
	Yunnan	23.94	31.04	7.10
SouthWest Total		130.53	131.62	1.09
(blank)	China	1,381.52	1,305.54	(75.98)
(blank) Total		1,381.52	1,305.54	(75.98)

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.3. Net Coal Usage by Province, 2002

Mt

EBYear	2002
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Sum of EBAmount		EBProcess	EBMaterial	Net Trade
scoProvRegion	EBScopeName	Indigenous Production	Total Primary Energy S	
East	Anhui	61.38	65.38	4.01
	Fujian	16.50	27.14	10.64
	Jiangsu	25.94	96.63	70.70
	Jiangxi	13.75	26.10	12.35
	Shandong	130.66	129.32	(1.34)
	Shanghai		46.82	46.82
	Zhejiang	0.74	60.18	59.45
East Total		248.96	451.58	202.62
North	Beijing	8.81	25.20	16.39
	Hebei	70.70	137.39	66.69
	Inner Mongolia	114.71	69.84	(44.87)
	Shanxi	367.62	90.55	(277.07)
	Tianjin		29.29	29.29
North Total		561.84	352.28	(209.56)
NorthEast	Heilongjiang	58.83	52.86	(5.97)
	Jilin	18.17	46.64	28.47
	Liaoning	51.81	93.55	41.74
NorthEast Total		128.80	193.05	64.25
NorthWest	Gansu	23.66	27.98	4.32
	Ningxia	17.07		(17.07)
	Qinghai	2.50	6.21	3.71
	Shaanxi	58.59	34.51	(24.08)
	Xinjiang	30.99	28.98	(2.01)
NorthWest Total		132.81	97.68	(35.13)
SouthCentral	Guangdong	2.18	66.49	64.31
	Guangxi	4.37	21.33	16.96
	Hainan	0.01		(0.01)
	Henan	99.21	72.41	(26.80)
	Hubei	6.85	64.83	57.98
	Hunan	35.00	42.87	7.87
SouthCentral Total		147.62	267.94	120.31
SouthWest	Chongqing	26.00	30.53	4.53
	Guizhou	50.01	34.37	(15.64)
	Sichuan	53.58	54.62	1.04
	Xizang	0.02		(0.02)
	Yunnan	30.66	33.54	2.87
SouthWest Total		160.27	153.06	(7.21)
(blank)	China	1,454.56	1,370.61	(83.95)
(blank) Total		1,454.56	1,370.61	

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.4. Net Coal Usage by Province, 2003

Mt

EBYear	2003
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Sum of EBAmount		EBProcess	EBMaterial	Net Trade
scoProvRegion	EBScopeName	Indigenous Production	Total Primary Energy	
		Coal Raw	Total Coal	
East	Anhui	67.26	73.32	6.05
	Fujian	17.40	32.73	15.33
	Jiangsu	27.60	108.49	80.88
	Jiangxi	14.52	32.44	17.92
	Shandong	146.67	151.65	4.98
	Shanghai		49.55	49.55
	Zhejiang	0.69	66.26	65.56
East Total		274.15	514.43	240.27
North	Beijing	9.57	26.27	16.69
	Hebei	72.54	148.41	75.88
	Inner Mongolia	147.07	83.74	(63.33)
	Shanxi	452.32	145.02	(307.30)
	Tianjin		29.29	29.29
North Total		681.50	432.73	(248.76)
NorthEast	Heilongjiang	81.05	60.31	(20.74)
	Jilin	22.55	52.02	29.47
	Liaoning	58.71	104.32	45.61
NorthEast Total		162.31	216.64	54.33
NorthWest	Gansu	29.23	32.19	2.96
	Ningxia	21.95	14.28	(7.67)
	Qinghai	3.11	6.76	3.65
	Shaanxi	83.01	39.61	(43.40)
	Xinjiang	34.83	31.84	(2.99)
NorthWest Total		172.12	124.67	(47.45)
SouthCentral	Guangdong	6.71	79.10	72.39
	Guangxi	4.43	25.91	21.48
	Hainan		3.38	3.38
	Henan	132.26	105.09	(27.17)
	Hubei	6.41	72.38	65.98
	Hunan	43.00	49.84	6.84
SouthCentral Total		192.82	335.72	142.90
SouthWest	Chongqing	25.75	26.46	0.71
	Guizhou	78.03	57.36	(20.66)
	Sichuan	72.62	72.54	(0.08)
	Yunnan	40.60	43.49	2.89
SouthWest Total		216.99	199.85	(17.14)
(blank)	China	1,722.00	1,634.02	(87.98)
(blank) Total		1,722.00	1,634.02	(87.98)

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.5. Net Coal Usage by Province, 2004

Mt

EBYear	2004
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Sum of EBAmount		EBProcess	EBMaterial	Net Trade
scoProvRegion	EBScopeName	Indigenous Productio	Total Primary Ene	
East		Coal Raw	Total Coal	
	Anhui	81.42	77.94	(3.48)
	Fujian	18.35	38.05	19.70
	Jiangsu	27.62	132.72	105.10
	Jiangxi	23.72	39.26	15.54
	Shandong	146.46	182.70	36.24
	Shanghai		51.46	51.46
	Zhejiang	0.56	83.62	83.06
East Total		298.13	605.76	307.63
North				
	Beijing	10.68	29.47	18.79
	Hebei	86.53	174.22	87.69
	Inner Mongolia	212.35	115.23	(97.12)
	Shanxi	508.62	151.33	(357.29)
	Tianjin		35.08	35.08
North Total		818.18	505.33	(312.85)
NorthEast				
	Heilongjiang	93.68	72.56	(21.12)
	Jilin	25.90	57.15	31.25
	Liaoning	66.42	117.74	51.32
NorthEast Total		186.00	247.45	61.46
NorthWest				
	Gansu	35.40	34.79	(0.61)
	Ningxia	24.33	27.60	3.28
	Qinghai	4.11	6.80	2.70
	Shaanxi	93.47	49.84	(43.62)
	Xinjiang	37.49	36.02	(1.47)
NorthWest Total		194.80	155.06	(39.73)
SouthCentral				
	Guangdong	10.05	87.90	77.85
	Guangxi	5.21	33.67	28.45
	Hainan		4.77	4.77
	Henan	152.08	120.71	(31.37)
	Hubei	6.30	80.54	74.24
	Hunan	50.54	60.40	9.86
SouthCentral Total		224.18	387.99	163.81
SouthWest				
	Chongqing	30.09	29.04	(1.05)
	Guizhou	97.57	68.29	(29.28)
	Sichuan	84.49	81.89	(2.60)
	Yunnan	22.16	30.65	8.49
SouthWest Total		234.30	209.87	(24.43)
(blank)	China	1,992.32	1,922.65	(69.67)
(blank) Total		1,992.32	1,922.65	(69.67)

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.2 Net Coal Usage by Province, 2005

Mt

Sum of EBAmount		EBProcess		Net Trade
scoProvRegio	EBScopeName	Coal Production	Coal Consumption	
East	Anhui	86.35	83.33	(3.02)
	Fujian	20.00	48.57	28.57
	Jiangsu	28.18	167.79	139.61
	Jiangxi	25.65	42.25	16.60
	Shandong	140.30	251.41	111.11
	Shanghai		53.23	53.23
	Zhejiang	0.44	96.81	96.37
East Total		300.91	743.37	442.46
North	Beijing	9.45	30.27	20.82
	Hebei	86.39	205.42	119.03
	Inner Mongolia	256.08	137.07	(119.01)
	Shanxi	554.26	136.81	(417.45)
	Tianjin		38.01	38.01
North Total		906.18	547.58	(358.60)
NorthEast	Heilongjiang	97.37	76.86	(20.51)
	Jilin	27.15	68.02	40.87
	Liaoning	66.41	130.70	64.29
NorthEast Total		190.92	275.58	84.66
NorthWest	Gansu	36.20	37.51	1.31
	Ningxia	26.60	32.49	5.89
	Qinghai	5.55	6.87	1.33
	Shaanxi	152.46	107.28	(45.18)
	Xinjiang	39.42	37.14	(2.28)
NorthWest Total		260.23	221.29	(38.94)
SouthCentral	Guangdong	4.77	99.42	94.65
	Guangxi	7.00	37.35	30.35
	Hainan		3.42	3.42
	Henan	187.61	169.07	(18.54)
	Hubei	7.78	86.53	78.75
	Hunan	69.04	87.47	18.42
SouthCentral Total		276.21	483.25	207.04
SouthWest	Chongqing	34.00	33.35	(0.65)
	Guizhou	106.15	76.58	(29.57)
	Sichuan	79.05	77.92	(1.13)
	Yunnan	64.62	66.82	2.19
SouthWest Total		283.83	254.66	(29.16)
Grand Total		2,218.28	2,525.74	307.46

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.3.3 Net Coal Usage by Province, 2006

Mt

Sum of EBAmount		EBProcess		Net Trade
scoProvRegion	EBScopeName	Coal Production	Coal Consumption	
East	Anhui	83.31	88.31	5.00
	Fujian	20.15	53.95	33.80
	Jiangsu	30.48	184.28	153.80
	Jiangxi	27.83	45.94	18.10
	Shandong	140.59	289.99	149.40
	Shanghai		51.45	51.45
	Zhejiang	0.13	113.34	113.21
East Total		302.49	827.25	524.76
North	Beijing	6.42	28.22	21.80
	Hebei	83.66	213.45	129.80
	Inner Mongolia	297.60	160.10	(137.49)
	Shanxi	581.42	148.51	(432.91)
	Tianjin		38.09	38.09
North Total		969.09	588.38	(380.72)
NorthEast	Heilongjiang	102.82	79.34	(23.48)
	Jilin	29.89	75.49	45.60
	Liaoning	69.08	142.11	73.04
NorthEast Total		201.79	296.95	95.16
NorthWest	Gansu	38.23	39.59	1.36
	Ningxia	32.75	34.90	2.14
	Qinghai	5.92	9.12	3.21
	Shaanxi	162.11	82.24	(79.87)
	Xinjiang	45.19	43.14	(2.04)
NorthWest Total		284.19	208.99	(75.20)
SouthCentral	Guangdong		111.26	111.26
	Guangxi	6.81	41.73	34.92
	Hainan		3.32	3.32
	Henan	195.32	160.90	(34.43)
	Hubei	12.30	96.52	84.22
	Hunan	69.01	94.01	25.00
SouthCentral Total		283.44	507.72	224.29
SouthWest	Chongqing	40.44	37.35	(3.10)
	Guizhou	118.17	89.51	(28.65)
	Sichuan	84.99	85.33	0.34
	Yunnan	73.39	74.82	1.43
SouthWest Total		316.99	287.01	(29.98)
Grand Total		2,357.99	2,716.29	358.30

N.B. Negative (paranthetic) Net Trade numbers indicate exports; Tibet data are not available. The sum of provincial production as reported does not equal the official national total.

Table 2A.4.1 Gross Electricity Generation

Physical Units, TWh

Year	EBProcess			
	Hydro	Fossil	Nuclear	Total
1949	0.70	3.60		4.30
1950	0.80	3.80		4.60
1951	0.90	4.80		5.70
1952	1.30	6.00		7.30
1953	1.50	7.70		9.20
1954	2.20	8.80		11.00
1955	2.40	9.90		12.30
1956	3.50	13.10		16.60
1957	4.80	14.50		19.30
1958	4.10	23.40		27.50
1959	4.40	37.90		42.30
1960	7.40	52.00		59.40
1961	7.40	40.60		48.00
1962	9.00	36.80		45.80
1963	8.70	40.30		49.00
1964	10.60	45.40		56.00
1965	10.40	57.20		67.60
1966	12.60	69.90		82.50
1967	13.10	64.30		77.40
1968	11.50	60.10		71.60
1969	16.00	78.00		94.00
1970	20.50	95.40		115.90
1971	25.10	113.30		138.40
1972	28.80	123.60		152.40
1973	38.90	127.90		166.80
1974	41.40	127.40		168.80
1975	47.60	148.20		195.80
1976	45.60	157.50		203.10
1977	47.60	175.80		223.40
1978	44.60	212.00		256.60
1979	50.10	231.90		282.00
1980	58.21	242.42		300.63
1981	65.55	243.72		309.27
1982	74.40	253.28		327.68
1983	86.36	265.08		351.44
1984	86.78	290.21		376.99
1985	92.37	318.32		410.69
1986	94.53	355.00		449.53
1987	100.01	397.26		497.27
1988	109.15	436.06		545.21
1989	118.39	466.42		584.81
1990	126.72	494.48		621.20
1991	125.09	552.46		677.55
1992	132.47	621.47		753.94
1993	151.82	683.88	1.60	837.30
1994	167.40	745.93	14.76	928.08
1995	190.58	804.32	12.83	1,007.73
1996	187.97	877.71	14.34	1,080.02
1997	195.98	924.07	14.42	1,134.47
1998	208.00	944.10	14.10	1,166.20
1999	196.58	1,025.70	14.95	1,237.23
2000	222.41	1,114.19	16.74	1,353.34
2001	277.43	1,183.43	17.47	1,478.33
2002	287.97	1,338.14	25.13	1,651.24
2003	283.68	1,580.36	43.34	1,907.38
2004	353.54	1,795.59	50.47	2,199.60
2005	397.02	2,047.34	53.09	2,497.44
2006	435.79	2,369.60	54.84	2,860.23

NB: These data are not consistent with China's separately reported primary energy data.

Table 2A.4.2 Gross Electricity Generation

Shares

Sum of EBA	EBProcess			
EBYear	Hydro	Fossil	Nuclear	Total
1949	16.3%	83.7%	0.0%	100%
1950	17.4%	82.6%	0.0%	100%
1951	15.8%	84.2%	0.0%	100%
1952	17.8%	82.2%	0.0%	100%
1953	16.3%	83.7%	0.0%	100%
1954	20.0%	80.0%	0.0%	100%
1955	19.5%	80.5%	0.0%	100%
1956	21.1%	78.9%	0.0%	100%
1957	24.9%	75.1%	0.0%	100%
1958	14.9%	85.1%	0.0%	100%
1959	10.4%	89.6%	0.0%	100%
1960	12.5%	87.5%	0.0%	100%
1961	15.4%	84.6%	0.0%	100%
1962	19.7%	80.3%	0.0%	100%
1963	17.8%	82.2%	0.0%	100%
1964	18.9%	81.1%	0.0%	100%
1965	15.4%	84.6%	0.0%	100%
1966	15.3%	84.7%	0.0%	100%
1967	16.9%	83.1%	0.0%	100%
1968	16.1%	83.9%	0.0%	100%
1969	17.0%	83.0%	0.0%	100%
1970	17.7%	82.3%	0.0%	100%
1971	18.1%	81.9%	0.0%	100%
1972	18.9%	81.1%	0.0%	100%
1973	23.3%	76.7%	0.0%	100%
1974	24.5%	75.5%	0.0%	100%
1975	24.3%	75.7%	0.0%	100%
1976	22.5%	77.5%	0.0%	100%
1977	21.3%	78.7%	0.0%	100%
1978	17.4%	82.6%	0.0%	100%
1979	17.8%	82.2%	0.0%	100%
1980	19.4%	80.6%	0.0%	100%
1981	21.2%	78.8%	0.0%	100%
1982	22.7%	77.3%	0.0%	100%
1983	24.6%	75.4%	0.0%	100%
1984	23.0%	77.0%	0.0%	100%
1985	22.5%	77.5%	0.0%	100%
1986	21.0%	79.0%	0.0%	100%
1987	20.1%	79.9%	0.0%	100%
1988	20.0%	80.0%	0.0%	100%
1989	20.2%	79.8%	0.0%	100%
1990	20.4%	79.6%	0.0%	100%
1991	18.5%	81.5%	0.0%	100%
1992	17.6%	82.4%	0.0%	100%
1993	18.1%	81.7%	0.2%	100%
1994	18.0%	80.4%	1.6%	100%
1995	18.9%	79.8%	1.3%	100%
1996	17.4%	81.3%	1.3%	100%
1997	17.3%	81.5%	1.3%	100%
1998	17.8%	81.0%	1.2%	100%
1999	15.9%	82.9%	1.2%	100%
2000	16.4%	82.3%	1.2%	100%
2001	18.8%	80.1%	1.2%	100%
2002	17.4%	81.0%	1.5%	100%
2003	14.9%	82.9%	2.3%	100%
2004	16.1%	81.6%	2.3%	100%
2005	15.9%	82.0%	2.1%	100%
2006	15.2%	82.8%	1.9%	100%

Figure 2A.3 Gross Electricity Generation, 1949-2006

Table 2B.1. Raw Coal Production by Producer, 1950-2006

1. Production (Mt)

Year	Centrally Administered State-Owned Mines	Local State-Owned Mines				Collective		Other Mines ^[2]	Total ^[3]
		Provincial Mines	Prefectural Mines	County Mines	Subtotal	Mines ^[1]	Private		
1950	30.2				12.7				42.9
1951	37.1				15.9				53.1
1952	48.4				18.2				66.6
1953	52.2				17.6				69.7
1954	62.3				21.4				83.7
1955	73.0				25.4				98.4
1956	81.5				28.9				110.4
1957	94.3				36.5				130.8
1958	157.8				78.2	34.0			270.0
1959	216.4				124.4	28.0			368.8
1960	240.4				134.9	22.0			397.2
1961	175.5				102.1				277.6
1962	147.6				72.0				219.6
1963	151.3				65.8				217.1
1964	150.6				64.0				214.6
1965	164.3				67.5				231.8
1966	180.7				70.8				251.5
1967	135.9				61.8	8.0			205.7
1968	147.3				59.3	13.0			219.6
1969	178.6				69.4	18.0			266.0
1970	226.7				96.3	31.0			354.0
1971	246.6				113.7	32.0			392.3
1972	249.2				125.3	36.0			410.5
1973	247.7				127.3	42.0			417.0
1974	242.8				118.4	52.0			413.2
1975	280.0				145.3	57.0			482.2
1976	273.6				144.8	65.0			483.5
1977	295.3				176.4	79.0			550.7
1978	341.8				189.0	87.0			617.9
1979	357.8	69.8	45.2	56.5	171.5	106.3			635.5
1980	344.4	66.2	42.8	53.1	162.1	113.6			620.1
1981	335.1	66.9	40.4	52.7	160.0	126.6			621.6
1982	349.9	70.3	42.5	57.5	170.4	146.1			666.3
1983	363.1	78.2	44.1	59.1	181.3	170.1			714.5
1984	394.7	67.0	46.7	64.0	177.7	216.9			789.2
1985	406.3	62.0	50.9	69.9	182.8	266.7	16.5		855.8
1986	413.9	60.5	52.0	68.9	181.4	277.5	20.4	0.8	873.6
1987	420.2	63.1	49.1	68.9	181.1	296.3	28.4	2.1	899.7
1988	434.5	66.4	53.4	74.1	193.9	306.7	38.0	6.8	941.8
1989	458.3	68.5	57.4	79.6	205.5	337.3	43.1	10.1	1,011.1
1990	480.2	66.4	58.7	80.0	205.1	346.4	43.3	4.9	1,036.6
1991	480.6	64.6	59.3	79.7	203.6	359.1	39.9	4.3	1,047.5
1992	482.5	57.7	60.6	84.5	202.8	382.5	44.8	3.7	1,071.6
1993	458.0	55.1	62.9	86.0	204.0	429.9	52.9	4.9	1,096.8
1994	479.5	56.5	59.1	90.3	206.0	474.6	73.6	6.7	1,166.7
1995	482.3	57.3	62.1	94.0	213.4	596.6	73.3	3.6	1,295.8
1996	537.3	58.8	63.8	99.4	222.1	614.8	96.6		1,374.1
1997	529.2	51.9	66.9	106.9	225.7	570.4	84.2		1,325.3
1998	503.5	48.1	62.9	101.9	212.9	516.2	36.9		1,232.5
1999	512.7	44.7	61.8	107.4	213.9	317.0	18.7		1,043.6
2000	535.7	43.0	61.6	89.7	194.3	269.2	13.3		999.2
2001	618.6	44.5	66.0	112.6	223.2	263.9	11.7		1,105.6
2002	714.6	56.6	80.0	130.7	267.2	433.5	25.2		1,415.3
2003	814.1	64.6	79.7	135.6	279.9	633.9	65.5		1,727.9
2004	938.8	69.6	77.3	150.0	296.8	761.8	105.3		1,997.4
2005	1,024.2	69.1	71.4	151.1	291.6	835.5	118.0		2,151.3
2006	1,119.6	74.7	75.8	169.3	319.9	892.4	130.7		2,331.8

[1] Private mines are included in data for collective mines prior to 1985.

[2] Domestic and foreign joint venture mines.

[3] The production totals reported in the Coal Industry Yearbook differ erratically from NBS totals reported in the China Energy Statistical Yearbook.

Source: EB, China Coal Industry Yearbook, various years; former Ministry of Energy, various years; NBS, China Energy Statistical Yearbook, various years.

Table 2B.1. Raw Coal Production by Producer, 1950-2006 (continued)

2. Growth Over Previous Year

Year	Centrally Administered State-Owned Mines	Local State-Owned Mines			Subtotal	Collective Mines ^[1]	Private Mines ^[1]	Other Mines ^[2]	Total ^[3]
		Provincial Mines	Prefectural Mines	County Mines					
1950									
1951	23.1%				25.1%				23.7%
1952	30.4%				13.9%				25.4%
1953	7.7%				-3.3%				4.7%
1954	19.4%				21.8%				20.0%
1955	17.2%				18.7%				17.6%
1956	11.7%				13.7%				12.2%
1957	15.7%				26.3%				18.5%
1958	67.3%				114.6%				106.5%
1959	37.2%				59.0%	-17.6%			36.6%
1960	11.1%				8.4%	-21.4%			7.7%
1961	-27.0%				-24.3%				-30.1%
1962	-15.9%				-29.5%				-20.9%
1963	2.5%				-8.6%				-1.1%
1964	-0.5%				-2.7%				-1.2%
1965	9.1%				5.5%				8.0%
1966	10.0%				4.8%				8.5%
1967	-24.8%				-12.6%				-18.2%
1968	8.4%				-4.1%	62.5%			6.8%
1969	21.2%				17.0%	38.5%			21.1%
1970	27.0%				38.8%	72.2%			33.1%
1971	8.8%				18.1%	3.2%			10.8%
1972	1.1%				10.1%	12.5%			4.6%
1973	-0.6%				1.6%	16.7%			1.6%
1974	-2.0%				-7.0%	23.8%			-0.9%
1975	15.3%				22.7%	9.6%			16.7%
1976	-2.3%				-0.3%	14.0%			0.3%
1977	7.9%				21.8%	21.5%			13.9%
1978	15.8%				7.1%	10.1%			12.2%
1979	4.7%				-9.3%	22.2%			2.9%
1980	-3.7%	-5.2%	-5.2%	-6.0%	-5.4%	6.9%			-2.4%
1981	-2.7%	1.1%	-5.6%	-0.9%	-1.3%	11.4%			0.2%
1982	4.4%	5.1%	5.1%	9.2%	6.5%	15.4%			7.2%
1983	3.8%	11.2%	3.6%	2.7%	6.4%	16.4%			7.2%
1984	8.7%	-14.3%	6.0%	8.2%	-2.0%	27.5%			10.5%
1985	2.9%	-7.5%	9.1%	9.3%	2.9%	23.0%			8.4%
1986	1.9%	-2.4%	2.1%	-1.4%	-0.8%	4.0%	23.6%		2.1%
1987	1.5%	4.3%	-5.5%	0.0%	-0.1%	6.8%		149.4%	3.0%
1988	3.4%	5.2%	8.8%	7.5%	7.0%	3.5%	34.1%	226.6%	4.7%
1989	5.5%	3.1%	7.5%	7.5%	6.0%	10.0%	13.2%	48.7%	7.4%
1990	4.8%	-3.0%	2.3%	0.4%	-0.2%	2.7%	0.6%	-51.4%	2.5%
1991	0.1%	-2.8%	1.0%	-0.3%	-0.7%	3.7%	-7.8%	-12.7%	1.1%
1992	0.4%	-10.7%	2.2%	6.1%	-0.4%	6.5%	12.1%	-12.9%	2.3%
1993	-5.1%	-4.6%	3.8%	1.8%	0.6%	12.9%	18.2%	31.0%	2.3%
1994	4.7%	2.6%	-6.0%	5.0%	0.9%	10.4%	39.0%	37.4%	6.4%
1995	0.6%	1.4%	5.0%	4.0%	3.6%	25.7%	-0.4%	-45.7%	11.1%
1996	11.4%	2.6%	2.8%	5.8%	4.1%	3.1%	31.8%		6.0%
1997	-1.5%	-11.8%	4.9%	7.5%	1.6%	-7.2%	-12.8%		-3.6%
1998	-4.9%	-7.3%	-6.0%	-4.7%	-5.7%	-9.5%	-56.1%		-7.0%
1999	1.8%	-7.0%	-1.8%	5.4%	0.5%	-38.6%	-49.3%		-15.3%
2000	4.5%	-4.0%	-0.3%	-16.5%	-9.2%	-15.1%	-29.3%		-4.3%
2001	15.5%	3.7%	7.1%	25.6%	14.9%	-2.0%	-11.5%		10.6%
2002	15.5%	27.0%	21.2%	16.0%	19.7%	64.3%	114.8%		28.0%
2003	13.9%	14.3%	-0.4%	3.8%	4.8%	46.2%	160.3%		22.1%
2004	15.3%	7.7%	-3.0%	10.6%	6.0%	20.2%	60.7%		15.6%
2005	9.1%	-0.6%	-7.6%	0.7%	-1.8%	9.7%	12.1%		7.7%
2006	9.3%	8.1%	6.2%	12.1%	9.7%	6.8%	10.7%		8.4%

[1] Private mines are included in data for collective mines prior to 1985.

[2] Domestic and foreign joint venture mines.

[3] The production totals reported in the Coal Industry Yearbook differ erratically from NBS totals reported in the China Energy Statistical Yearbook.

Source: EB, China Coal Industry Yearbook, various years; former Ministry of Energy, various years; NBS, China Energy Statistical Yearbook, various years.

Table 2B.1. Raw Coal Production by Producer, 1950-2006 (continued)

3. Share of Total

Year	Centrally Administered State-Owned Mines	Local State-Owned Mines			Subtotal	Collective Mines ^[1]	Private Mines ^[1]	Other Mines ^[2]	Total ^[3]
		Provincial Mines	Prefectural Mines	County Mines					
1950	70.3%				29.7%				100%
1951	70.0%				30.0%				100%
1952	72.7%				27.3%				100%
1953	74.8%				25.2%				100%
1954	74.4%				25.6%				100%
1955	74.2%				25.8%				100%
1956	73.9%				26.1%				100%
1957	72.1%				27.9%				100%
1958	58.4%				29.0%	12.6%			100%
1959	58.7%				33.7%	7.6%			100%
1960	60.5%				33.9%	5.5%			100%
1961	63.2%				36.8%				100%
1962	67.2%				32.8%				100%
1963	69.7%				30.3%				100%
1964	70.2%				29.8%				100%
1965	70.9%				29.1%				100%
1966	71.9%				28.1%				100%
1967	66.1%				30.1%	3.9%			100%
1968	67.1%				27.0%	5.9%			100%
1969	67.1%				26.1%	6.8%			100%
1970	64.0%				27.2%	8.8%			100%
1971	62.9%				29.0%	8.2%			100%
1972	60.7%				30.5%	8.8%			100%
1973	59.4%				30.5%	10.1%			100%
1974	58.8%				28.7%	12.6%			100%
1975	58.1%				30.1%	11.8%			100%
1976	56.6%				30.0%	13.4%			100%
1977	53.6%				32.0%	14.3%			100%
1978	55.3%				30.6%	14.1%			100%
1979	56.3%	11.0%	7.1%	8.9%	27.0%	16.7%			100%
1980	55.5%	10.7%	6.9%	8.6%	26.1%	18.3%			100%
1981	53.9%	10.8%	6.5%	8.5%	25.7%	20.4%			100%
1982	52.5%	10.6%	6.4%	8.6%	25.6%	21.9%			100%
1983	50.8%	10.9%	6.2%	8.3%	25.4%	23.8%			100%
1984	50.0%	8.5%	5.9%	8.1%	22.5%	27.5%			100%
1985	47.5%	7.2%	6.0%	8.2%	21.4%	31.2%	1.9%		100%
1986	47.4%	6.9%	6.0%	7.9%	20.8%	31.8%	2.3%	0.1%	100%
1987	46.7%	7.0%	5.5%	7.7%	20.1%	32.9%	3.2%	0.2%	100%
1988	46.1%	7.1%	5.7%	7.9%	20.6%	32.6%	4.0%	0.7%	100%
1989	45.3%	6.8%	5.7%	7.9%	20.3%	33.4%	4.3%	1.0%	100%
1990	46.3%	6.4%	5.7%	7.7%	19.8%	33.4%	4.2%	0.5%	100%
1991	45.9%	6.2%	5.7%	7.6%	19.4%	34.3%	3.8%	0.4%	100%
1992	45.0%	5.4%	5.7%	7.9%	18.9%	35.7%	4.2%	0.3%	100%
1993	41.8%	5.0%	5.7%	7.8%	18.6%	39.2%	4.8%	0.4%	100%
1994	41.1%	4.8%	5.1%	7.7%	17.7%	40.7%	6.3%	0.6%	100%
1995	37.2%	4.4%	4.8%	7.3%	16.5%	46.0%	5.7%	0.3%	100%
1996	39.1%	4.3%	4.6%	7.2%	16.2%	44.7%	7.0%		100%
1997	39.9%	3.9%	5.0%	8.1%	17.0%	43.0%	6.4%		100%
1998	40.9%	3.9%	5.1%	8.3%	17.3%	41.9%	3.0%		100%
1999	49.1%	4.3%	5.9%	10.3%	20.5%	30.4%	1.8%		100%
2000	53.6%	4.3%	6.2%	9.0%	19.4%	26.9%	1.3%		100%
2001	56.0%	4.0%	6.0%	10.2%	20.2%	23.9%	1.1%		100%
2002	50.5%	4.0%	5.6%	9.2%	18.9%	30.6%	1.8%		100%
2003	47.1%	3.7%	4.6%	7.8%	16.2%	36.7%	3.8%		100%
2004	47.0%	3.5%	3.9%	7.5%	14.9%	38.1%	5.3%		100%
2005	47.6%	3.2%	3.3%	7.0%	13.6%	38.8%	5.5%		100%
2006	48.0%	3.2%	3.3%	7.3%	13.7%	38.3%	5.6%		100%

[1] Private mines are included in data for collective mines prior to 1985 and for 1995 and later (although figures for private mines are reported in 1995 and later years). Other mines included for 1994 and later.

[2] Domestic and foreign joint venture mines.

[3] The production totals reported in the Coal Industry Yearbook differ erratically from NBS totals reported in the China Energy Statistical Yearbook.

Source: EB, China Coal Industry Yearbook, various years; former Ministry of Energy, various years; SSB, China Energy Statistical Yearbook, various years.

Figure 2B.1. Raw Coal Production by Ownership, 1980-2006

Figure 2B.2. Raw Coal Production Shares by Ownership, 1980-2006

Table 2B.2. Raw Coal Production by Type of Coal, 1952-2006 (Mt)

Year	Hard Coal				Anthracite	Subtotal	Lignite and Brown Coal	Total
	Bituminous Coal							
	Coking Coal	Other Bitum.	Subtotal					
1952	11.36	34.80	46.16	7.72	53.88	0.08	53.96	
1957	45.86	55.38	101.24	20.14	121.38	2.86	124.24	
1965	106.73	76.65	183.38	39.59	222.97	8.83	231.80	
1979	249.49	234.96	484.45	125.84	610.29	25.25	635.54	
1980	308.33	158.53	466.86	128.97	595.83	24.31	620.15	
1981	303.99	163.15	467.14	131.11	598.25	23.39	621.64	
1982	331.14	171.17	502.31	139.05	641.36	24.97	666.33	
1983	347.84	187.93	535.77	151.86	687.63	26.90	714.53	
1984	373.82	215.58	589.40	169.72	759.12	30.11	789.23	
1985	391.09	266.69	657.78	182.28	840.06	32.22	872.28	
1986	415.71	261.56	677.27	184.75	862.02	32.02	894.04	
1987	454.94	247.48	702.42	192.34	894.76	33.20	927.96	
1988	462.72	277.84	740.56	202.61	943.17	36.70	979.88	
1989	499.66	293.73	793.39	217.97	1,011.36	42.78	1,054.14	
1990	512.77	308.76	821.53	212.85	1,034.38	45.50	1,079.88	
1991	518.26	306.86	825.12	214.37	1,039.49	44.79	1,084.28	
1992	527.46	318.86	846.32	220.96	1,067.28	47.27	1,114.55	
1993	539.99	335.52	875.51	234.13	1,109.64	41.74	1,151.37	
1994	572.46	361.43	933.89	248.66	1,182.55	46.98	1,229.53	
1995	607.49	370.86	978.35	264.33	1,242.68	49.50	1,292.18	
1996	622.77	411.13	1,033.91	285.65	1,319.56	54.53	1,374.08	
1997	637.56	388.69	1,026.51	241.57	1,268.08	57.17	1,325.25	
1998	553.87	399.22	953.09	228.65	1,181.74	50.77	1,232.51	
1999	499.12	317.13	816.25	181.81	998.06	45.57	1,043.63	
2000	474.25	306.42	780.67	175.73	956.40	42.77	999.17	
2001	550.90	317.12	868.02	189.75	1,057.77	47.82	1,105.59	
2002	679.69	433.37	1,113.06	249.60	1,362.66	52.64	1,415.30	
2003	841.56	519.30	1,360.86	304.10	1,664.96	62.91	1,727.87	
2004	884.28	569.53	1,453.81	463.82	1,917.63	79.72	1,997.35	
2005	912.46	654.24	1,566.70	486.97	2,053.67	97.65	2,151.32	
2006	961.07	823.57	1,784.64	442.03	2,226.67	105.11	2,331.78	

Source: NBS, China Energy Statistical Yearbook, various years; EB, China Coal Industry Yearbook, various years. SETC, China Energy Annual Review, 1994; China Energy Research Society, 1995; British Petroleum Company, various years.

Table 2B.2. Raw Coal Production by Type of Coal, 1952-2006 (annual share)

Year	Hard Coal				Anthracite	Subtotal	Lignite and Brown Coal	Total
	Bituminous Coal							
	Coking Coal	Other Bitum.	Subtotal					
1952	21.0%	64.5%	85.5%	14.3%	99.9%	0.1%	100%	
1957	36.9%	44.6%	81.5%	16.2%	97.7%	2.3%	100%	
1965	46.0%	33.1%	79.1%	17.1%	96.2%	3.8%	100%	
1979	39.3%	37.0%	76.2%	19.8%	96.0%	4.0%	100%	
1980	49.7%	25.6%	75.3%	20.8%	96.1%	3.9%	100%	
1981	48.9%	26.2%	75.1%	21.1%	96.2%	3.8%	100%	
1982	49.7%	25.7%	75.4%	20.9%	96.3%	3.7%	100%	
1983	48.7%	26.3%	75.0%	21.3%	96.2%	3.8%	100%	
1984	47.4%	27.3%	74.7%	21.5%	96.2%	3.8%	100%	
1985	44.8%	30.6%	75.4%	20.9%	96.3%	3.7%	100%	
1986	46.5%	29.3%	75.8%	20.7%	96.4%	3.6%	100%	
1987	49.0%	26.7%	75.7%	20.7%	96.4%	3.6%	100%	
1988	47.2%	28.4%	75.6%	20.7%	96.3%	3.7%	100%	
1989	47.4%	27.9%	75.3%	20.7%	95.9%	4.1%	100%	
1990	47.5%	28.6%	76.1%	19.7%	95.8%	4.2%	100%	
1991	47.8%	28.3%	76.1%	19.8%	95.9%	4.1%	100%	
1992	47.3%	28.6%	75.9%	19.8%	95.8%	4.2%	100%	
1993	46.9%	29.1%	76.0%	20.3%	96.4%	3.6%	100%	
1994	46.6%	29.4%	76.0%	20.2%	96.2%	3.8%	100%	
1995	47.0%	28.7%	75.7%	20.5%	96.2%	3.8%	100%	
1996	45.3%	29.9%	75.2%	20.8%	96.0%	4.0%	100%	
1997	48.1%	29.3%	77.5%	18.2%	95.7%	4.3%	100%	
1998	44.9%	32.4%	77.3%	18.6%	95.9%	4.1%	100%	
1999	47.8%	30.4%	78.2%	17.4%	95.6%	4.4%	100%	
2000	47.5%	30.7%	78.1%	17.6%	95.7%	4.3%	100%	
2001	49.8%	28.7%	78.5%	17.2%	95.7%	4.3%	100%	
2002	48.0%	30.6%	78.6%	17.6%	96.3%	3.7%	100%	
2003	48.7%	30.1%	78.8%	17.6%	96.4%	3.6%	100%	
2004	44.3%	28.5%	72.8%	23.2%	96.0%	4.0%	100%	
2005	42.4%	30.4%	72.8%	22.6%	95.5%	4.5%	100%	
2006	41.2%	35.3%	76.5%	19.0%	95.5%	4.5%	100.0%	

Source: NBS, China Energy Statistical Yearbook, various years; EB, China Coal Industry Yearbook, various years. SETC, China Energy Annual Review, 1994; China Energy Research Society, 1995; British Petroleum Company, various years.

Figure 2B.3. Raw Coal Production by Type of Coal, 1980-2006

Figure 2B.3. Raw Coal Production Shares by Type of Coal, 1980-2006

Table 2B.3. Major Coal Mining Enterprises^[1]

1. Annual Production > 5 Million Tonnes of Raw Coal (1980-2003)

			Annual Production (million tonnes of raw coal)																				
Mine Enterprises	Province		1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
1	Feicheng	Shandong	3.683	3.071	3.032	3.299	3.546	3.831	3.844	3.810	3.830			5.555	5.594		5.778	5.242	4.514		6.828	7.005	
2	Hebi	Henan	4.683	4.854	4.917	5.135	5.181	5.009	5.048	4.800	4.420			5.545	5.923	5.904	5.665	5.700	6.025	6.822	7.110	7.181	
3	Zibo	Shandong	5.223	4.398	4.268	3.967	4.195	4.424	4.531	3.980	4.460			4.649	5.245		5.138	5.800	4.944		11.867	12.593	
4	Tonghua	Jilin	4.563	4.006	3.842	4.119	4.172	4.229	4.308	5.500	4.900			3.140	3.109	2.306	2.492	2.334	2.370				
5	Zhengzhou	Henan						5.107		5.350	5.120			6.082	7.103	6.506	6.104	6.538	7.020	8.345	8.918	10.113	
6	Beijing		6.202	5.975	5.709	5.890	5.966	6.135	6.022	5.930	5.630			4.898	4.931	5.146	4.580	4.193	4.268	5.477	6.291	5.788	
7	Fenxi	Shanxi	4.502	6.185	6.731	6.668	6.924	7.083	6.929	6.820	5.690			6.037	6.022	5.695	4.859			5.522			
8	Zaozhuang	Shandong	7.509	6.613	6.316	6.388	6.161	6.070	5.950	6.240	5.760			7.743	8.524		8.067	8.000	6.854		14.137	15.926	
9	Tongchuan	Shaanxi	6.684	7.059	6.997	6.515	5.857	5.855	6.146	6.200	5.940			5.213		5.559	5.093	5.507	5.369	5.763	7.819	8.881	
10	Shitanjing	Ningxia	5.379	5.780	5.806	5.905	6.216	6.319	7.190	6.600	6.170			5.895	6.357	6.058	5.744	6.000	6.093				
11	Shenyang	Liaoning	1.126	4.953	4.816	4.279	4.616	5.159	5.345	5.640	6.240			3.000	2.789	3.148	3.845	4.100	3.948	4.150	6.760	6.021	
12	Xinwen	Shandong	5.631	6.667	6.696	6.828	7.519	7.721	7.359	7.440	7.230		10.050	11.204	11.868	11.710	11.731	11.400	9.997		11.585	13.081	
13	Lu'an	Shanxi	4.517	6.840	8.026	8.805	10.001	10.104	10.102	10.180	9.120			9.911	10.150	12.837	12.190			12.955	13.923	17.528	
14	Fushun	Liaoning	8.079	8.213	8.150	6.904	7.053	7.357	7.584	8.780	9.120			7.000	7.312	6.646	6.201	6.466	5.529	5.780	5.778	5.687	
15	Yima	Henan	6.416	8.304	8.497	8.233	8.252	10.082	10.659	10.300	9.370			8.947	9.087	8.506	7.301	6.661	6.718	8.373	10.761	11.013	
16	Qitaihe	Heilongjiang	3.250	4.834	5.426	6.511	7.119	7.567	7.965	10.210	10.040			8.750	9.130	8.800	10.430	10.800	10.500	11.000	13.000	14.071	
17	Tiefa	Liaoning	2.173	4.555	4.929	5.630	6.709	8.030	8.570	10.260	10.190	10.000	10.040	12.200	14.403	15.070	14.210	13.822	14.654	15.560	16.790	19.390	
18	Huainan	Anhui	9.043	9.232	9.537	7.910	8.948	9.162	10.053	9.020	10.380	11.500	12.410	13.090	13.570	13.820	13.150	13.250	14.283	18.004	23.675	28.309	
19	Fengfeng	Hebei	10.312	11.305	11.356	11.491	11.540	11.575	11.455	11.000	10.780	10.150	10.340	10.620	10.770	10.030	8.793	8.663	10.263	10.151	10.559	11.800	
20	Jincheng	Shanxi	4.165	6.131	6.786	8.155	10.033	10.042	10.363	10.260	10.850	10.320	10.040	10.720	11.512	9.670	10.810			13.703	14.843	18.849	
21	Yanzhou	Shandong	2.333	5.200	6.348	7.437	8.659	9.364	9.687	10.520	10.850	12.000	14.610	16.060	18.650	19.240	21.791	24.572	28.006	36.090	40.723	45.600	
22	Shuangyashan	Heilongjiang	5.272	6.741	7.389	8.035	8.290	9.678	10.597	11.260	11.470			10.000	10.460	10.000		7.810	7.810	8.435	9.392	10.412	
23	Fuxin	Liaoning	11.749	11.500	11.235	11.043	10.945	10.862	11.024	12.770	13.100	10.620		9.484	9.753	9.987	9.790	9.299	9.870	8.260	9.248	10.634	
24	Xuzhou	Jiangsu	12.558	12.830	12.479	12.639	12.517	12.923	13.165	13.810	13.400	12.620	12.790	12.900	13.110	12.680	12.770	12.882	13.623	13.722	15.264	16.336	
25	Huaibei	Anhui	13.284	14.247	14.350	14.278	14.096	14.147	14.187	13.630	14.240	14.230	14.490	14.130	16.850	14.380	14.958	16.376	16.931	20.011	19.929	20.194	
26	Xishan	Shanxi	9.308	11.772	12.573	13.557	13.111	15.701	15.152	15.740	15.190	14.130	15.900	17.530	17.730	17.090	16.120	16.730	19.129	23.653	27.089		
27	Yangquan	Shanxi	12.178	13.932	14.298	14.972	15.089	15.681	16.234	15.580	16.000	14.080	14.610	15.600	16.160	16.340	12.300		12.850	13.991	18.686	22.690	
28	Kailuan	Hebei	19.287	16.663	18.496	18.809	17.524	17.962	17.821	17.250	17.270	17.600	17.540	17.840	18.640	18.630	18.650	18.800	19.185	22.338	23.182	25.497	
29	Hegang	Heilongjiang	12.732	14.298	14.477	14.586	14.451	14.750	15.708	17.520	17.400	11.300	11.550	12.770	13.600	12.990	12.490		11.510	11.750	12.359	14.025	14.867
30	Jixi	Heilongjiang	12.700	12.997	13.486	13.440	13.322	14.607	15.707	20.060	18.060	10.070	10.400	13.040	12.090	9.480		7.000	7.000	7.681	8.085	9.654	
31	Pingdingshan	Henan	13.651	15.966	16.683	17.236	17.434	17.613	17.499	17.800	18.180	17.150	17.190	19.500	17.583	19.560	18.474	18.992	18.343	20.994	23.690	26.690	
32	Datong	Shanxi	24.520	30.805	29.184	28.738	29.229	29.990	29.931	30.010	30.720	31.750	31.520	31.018	37.060	34.070	28.650		32.000	35.023	40.080	51.708	
33	Pingshuo	Shanxi										10.320	10.500	12.230	12.630	11.600	11.810			17.074	19.758	25.269	
34	Wanbei	Anhui																		7.233	8.370	9.374	
35	Huolinhe	Inner Mongolia																		5.540	7.369	8.462	
36	Pingzhuang	Inner Mongolia																		7.461	8.023	9.282	
37	Shenhua														6.639	5.655	7.130	22.670	38.110				

[1] The listed mines are all key enterprises (large state-run projects). Due to reorganization of the coal sector and changes in regulatory structure, coverage of mining companies has changed, and statistics for some mines have become more difficult to obtain. For instance, the Shenhua Coal Group was formed in 1995 through the consolidation of coal fields in Shaanxi and Inner Mongolia, and has grown into the country's largest coal producer, with output of over 100 Mt in 2003.

Source: NBS, China Energy Statistical Yearbook, various years; former Ministry of Energy, Energy in China, various years; EB, China Coal Industry Yearbook, 1990; Weil, 1991; Energy Research Institute.

Table 2B.3. Major Coal Mining Enterprises (continued)
2. Annual Production of Large Mine Enterprises (2006)

Million tonnes of raw coal

	Mine Enterprises	Province	Annual Production
			2006
1	Shenhua Group		202.990
2	China National Coal Group		90.624
3	Shanxi Jiaomei	Shanxi	69.960
4	Datong	Shanxi	61.753
5	LongMay Mining Group	Heilongjiang	53.740
6	Shaanxi Coal and Chemical Industrial Group	Shaanxi	38.650
7	Yankuang	Shandong	37.750
8	Yangquan	Shanxi	35.417
9	Huainan Mining Industry	Anhui	33.533
10	Lu'an Group	Shanxi	31.600
11	Pingdingshan	Henan	30.950
12	Jincheng Anthracite Mining Group	Shanxi	30.020
13	Kailuan Group	Hebei	28.820
14	Huaibei	Anhui	23.065
15	Tiefa	Liaoning	21.633
16	Huolinhe	Inner Mongolia	20.596
17	Yima	Henan	18.163
18	Xuzhou Mining	Jiangsu	18.043
19	Jinniu Energy Group	Hebei	17.617
20	Zaozhuang Coal Mining Group	Shandong	17.237
21	Huating	Gansu	16.380
22	Pingzhuang	Inner Mongolia	13.850
23	Shenyang Coal Trade Group	Liaoning	13.491
24	Fengfeng Group	Hebei	13.082
25	Yongcheng	Henan	12.504
26	Zibo Mining Group	Shandong	11.811
27	Xinwen Mining Group	Shandong	11.382
28	Sichuan Coal Mining Mining Group	Sichuan	11.219
29	Zhengzhou Coal Mining Industry Group	Henan	11.085
30	Chongqing Coal Industry Group	Chongqing	10.656
31	Wanbei Coal-Electricity	Anhui	10.412
32	Fuxin	Liaoning	10.350

Source: NBS, China Energy Statistical Yearbook, various years; EB, China Coal Industry Yearbook, various years.

Table 2B.4. Coal Mine Safety: Mining Deaths, 1992-2006

Year	Centrally Administered State-Owned Mines	Locally Administered State-Owned Mines	Town & Township Mines	Other Mines ^[1]	Total
1. Deaths from all mining accidents (persons)					
1992					4,481
1993	1,634	926	2,476		5,036
1994	551	1,082	4,822	666	7,121
1995	518	1,027	4,286	464	6,295
1996	560	850	3,933	259	5,602
1997	710	912	4,154	365	6,141
1998	524	901	4,575	304	6,304
1999	509	940	4,666	363	6,478
2000	747	814	3,933	304	5,798
2001	749	1,007	3,645	269	5,670
2002	904	1,023	5,068		6,995
2003	894	881	4,659		6,434
2004	854	816	4,357		6,027
2005	984	570	4,384		5,938
2006	704	611	3,431		4,746
2. Production (Mt)					
1992	483	207	425	4	1,071.6
1993	458	209	484	5	1,096.8
1994	469	206	159	7	1,166.7
1995	482	213	661	4	1,295.8
1996	537	222	615		1,374.1
1997	529	226	570		1,325.3
1998	503	213	516		1,232.5
1999	513	214	317		1,043.6
2000	536	194	269		999.2
2001	619	223	264		1,105.6
2002	715	267	434		1,415.3
2003	814	280	634		1,727.9
2004	939	297	762		1,997.4
2005	1,024	292	836		2,151.3
2006	1,121	320	883		2,325.0
3. Deaths per million tons mined ^[2]					
1992					4.18
1993	3.57	4.43	5.12		4.59
1994	1.18	5.25	30.41		6.10
1995	1.07	4.81	6.48		4.86
1996	1.04	3.83	6.40		4.08
1997	1.34	4.04	7.28		4.63
1998	1.04	4.23	8.86		5.11
1999	0.99	4.39	14.72		6.21
2000	1.39	4.19	14.61		5.80
2001	1.21	4.51	13.81		5.13
2002	1.27	3.83	11.69		4.94
2003	1.10	3.15	7.35		3.72
2004	0.91	2.75	5.72		3.02
2005	0.96	1.95	5.25		2.76
2006	0.63	1.91	3.89		2.04

[1] Domestic and foreign joint venture mines; 1999-2001 data are residual.

[2] Figures for 1992-1997 are calculated from data above. Figure for 1998 is directly reported in China Coal Industry Yearbook.

Source: NBS, China Energy Statistical Yearbook, various years; Zhongguo Nengyuan [Energy of China], 1993, no. 2; China Energy Research Society, 1995; EB, China Coal Industry Yearbook, various years.

Table 2B.5. Coal Mine Safety: Fatal Mining Accidents (number of fatalities)

1. 1999

	Deaths	Deaths per Mt Mined	Ceiling Collapse	Gas	Machinery/ Electrical	Transport	Explosives	Flooding	Fire	Other	Accidents with three or more victims	
											Occurrences	Deaths
Total	6,478		1,997	3,209	114	364	62	468	33	231	506	3,278
1. Coal Production	6,399	6.077	1,986	3,166	108	354	62	468	33	222	504	3,232
Key State-Owned Mines	509		152	203	28	81	8	2		35	30	215
of which: accidents in coal production	475	1.011	142	202	25	72	8	2		24		
Locally Administered State-Owned Mines	940		395	354	13	76	12	58		32	46	334
of which: accidents in coal production	917	4.287	389	351	12	74	10	58		23		
Township and Village Mines ^[1]	4,666	14.719	1,324	2,487	63	179	39	398	26	150	406	2,554
of which: mines with permits	3,139		837	1,668	44	152	38	245	25	130		
Small Mines Run by KeyState-Owned Mines	284		115	122	4	18	3	10	7	5	22	129
2. Key State-Owned Construction Units	70		11	43	3	10				3	1	43
of which: Key State-Owned Construction Projects	63		6	43	3	8				3	1	43
3. Geological Survey and Prospecting	4				2					2		
4. Machine Building	1				1							
5. Other	4									4	1	3
Estimated Unreported at Key Enterprises	70			21		24				25	2	45

[1] Township and village mines are small, rural, non-state mines.

Source: EB, China Coal Industry Yearbook, 2000.

Table 2B.5. Coal Mine Safety: Fatal Mining Accidents (number of fatalities)

2. 2000

	Deaths	Deaths per Mt Mined	Ceiling Collapse	Gas	Machinery/ Electrical	Transport	Explosives	Flooding	Fire	Other	Accidents with three or more victims	
											Occurrences	Deaths
Total	5,798		1,521	3,132	79	330	52	351	40	293	466	3,188
1. Coal Production	5,765	5,770	1,504	3,130	77	326	52	347	40	289	465	3,184
Key State-Owned Mines	747	1,540	174	389	22	62	9	29	16	46	31	427
of which: accidents in coal production	700	1,443	170	368	18	61	9	29	16	29	31	427
Locally Administered State-Owned Mines	814	4,190	309	292	15	86	15	26	3	68	60	306
of which: accidents in coal production	799	4,113	305	292	15	85	15	23	3	61	60	306
Township and Village Mines ^[1]	3,933	14,611	961	2,279	38	161	27	279	21	167	354	2,264
of which: mines with permits	3,001		822	1,682	35	143	27	204	21	67		
Small Mines Run by KeyState-Owned Mines												
2. Key State-Owned Construction Units	31		17	2	1	4		4		3	1	4
of which: Key State-Owned Construction Projects	18		9			3		4		2	1	4
3. Geological Survey and Prospecting												
4. Machine Building	1									1		
5. Other	1				1							
Estimated Unreported at Key Enterprises	18		4		2	3	3			6	2	7

[1] Township and village mines are small, rural, non-state mines.

Source: EB, China Coal Industry Yearbook, 2001.

Table 2B.5. Coal Mine Safety: Fatal Mining Accidents (number of fatalities)

3. 2004

	Deaths	Ceiling Collapse	Gas	Machinery/ Electrical	Transport	Explosives	Flooding	Fire	Other	Accidents with three or more victims		Accidents with ten or more victims	
										Occurrences	Deaths	Occurrences	Deaths
Total	6,027	2,309	1,900	89	605	122	357	91	271	247	1,085	42	1,008
Key State-Owned Mines	854	191	437	33	105	14	28		48	18	87	8	397
Locally Administered State-Owned Mines	816	358	149	12	116	24	57	30	68	32	141	4	88
Township and Village Mines	4,357									197	857	30	532
Collective Township and Village Mines	475	223	99	14	43	19	37	16	24				
Private Township and Village Mines	3,599	1,537	1,215	30	341	65	235	45	131				

Source: EB, China Coal Industry Yearbook, 2005.

4. 2005

	Deaths	Ceiling Collapse	Gas	Machinery/ Electrical	Transport	Explosives	Flooding	Fire	Other	Accidents with three or more victims		Accidents with ten or more victims	
										Occurrences	Deaths	Occurrences	Deaths
Total	5,938	2,058	2,171	105	578	101	605	58	262	208	877	58	1,739
Key State-Owned Mines	984									19	84	9	527
Locally Administered State-Owned Mines	570									30	133	2	25
Township and Village Mines	4,384									159	660	47	1,187

Source: EB, China Coal Industry Yearbook, 2005.

5. 2006

	Deaths	Changes (%)	No. of times	Changes (%)
Total	4,746	-20.1%	2,945	-10.9%
Major accidents	1,072	-22.2%	237	-13.9%
Serious accidents	744	-57.2%	39	-32.8%
Serious major accidents	233	-75.8%	6	-45.5%
Gas incidents	1,319	-39.2%	327	-21.0%
Township and Village Mines	3,431	-21.8%	2,149	-13.3%

Source: data from State Administration of Coal Mine Safety.

Table 2B.6. Coke Production, 1929-2006 (Mt)

Year	Total	"Modern" ^[1]	"Old" ^[2]	"Modern" Coke as % of Total
1949	0.54	0.53	0.01	98.1%
1950	1.50	1.29	0.21	86.0%
1951	2.03	1.69	0.34	83.3%
1952	2.89	2.22	0.67	76.8%
1953	3.55	2.78	0.77	78.3%
1954	4.50	3.34	1.16	74.2%
1955	5.48	3.90	1.58	71.2%
1956	6.37	4.56	1.81	71.6%
1957	8.30	5.55	2.75	66.9%
1958	21.74	8.03	13.71	36.9%
1959	45.04	11.24	33.80	25.0%
1960	56.47	16.10	40.37	28.5%
1961	28.09	12.03	16.06	42.8%
1962	13.42	10.10	3.32	75.3%
1963	11.06	9.55	1.51	86.3%
1964	11.13	9.80	1.33	88.1%
1965	13.33	12.03	1.30	90.2%
1966	16.34	14.19	2.15	86.8%
1967	11.02	10.19	0.83	92.5%
1968	10.98	10.05	0.93	91.5%
1969	16.76	14.50	2.26	86.5%
1970	23.30	19.16	4.14	82.2%
1971	30.23	23.12	7.11	76.5%
1972	34.37	25.36	9.01	73.8%
1973	34.51	26.51	8.00	76.8%
1974	31.04	23.76	7.28	76.5%
1975	36.80	27.39	9.41	74.4%
1976	35.70	25.86	9.84	72.4%
1977	39.29	26.83	12.46	68.3%
1978	46.90	32.69	14.21	69.7%
1979	45.83	33.54	12.29	73.2%
1980	43.43	34.05	9.38	78.4%
1981	38.95	31.72	7.23	81.4%
1982	40.19	33.11	7.08	82.4%
1983	42.20	34.51	7.69	81.8%
1984	45.57	36.15	9.42	79.3%
1985	48.02	38.36	9.66	79.9%
1986	52.76	40.93	11.83	77.6%
1987	57.95	43.75	14.20	75.5%
1988	61.08	45.42	15.66	74.4%
1989	66.24	46.75	19.49	70.6%
1990	73.28	51.30	21.98	70.0%
1991	73.52	53.96	19.56	73.4%
1992	79.84	56.00	23.84	70.1%
1993	93.20	60.11	33.09	64.5%
1994	114.77	64.74	50.03	56.4%
1995	135.10	67.43	67.67	49.9%
1996	136.40	69.51	66.89	51.0%
1997	137.31	71.44	65.87	52.0%
1998	128.06	77.65	50.41	60.6%
1999	120.73	78.73	42.00	65.2%
2000	121.84	87.52	34.32	71.8%
2001	131.31	94.42	36.89	71.9%
2002	142.53			
2003	177.76			
2004	199.38			
2005	254.12			
2006	297.68			

[1] "Modern" coke (*jijiao*) is coke produced in industrial coke ovens. This category is no longer available since 2002.

[2] "Old" coke (*tujiao*) is coke produced in clay or dirt kilns (usually by rural enterprises), which are much dirtier and more inefficient than industrial coke ovens. This category is no longer available since 2002.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Zhongguo Nengyuan (Energy of China), 1995, no. 2; Energy Research Institute; 1998-2000 "Old" data: Dai, et al., 2002; 2001 "Modern" data: Alibaba China, 2002.

Table 2B.7. Coking Coal Used in Coke Production, 1980-2006 (Mt)

Year	Coking Coal Production	Used for Coking	Used for Other Purposes	Coke Production	% Coking Coal Used for Coke
1980	308.33	66.82	241.51	43.43	21.7%
1981	303.99	59.09	244.90	38.95	19.4%
1982	331.14	60.77	270.37	40.19	18.4%
1983	347.84	63.94	283.91	42.20	18.4%
1984	373.82	69.63	304.19	45.57	18.6%
1985	391.09	73.04	318.05	48.02	18.7%
1986	415.71	80.57	335.14	52.76	19.4%
1987	454.94	87.66	367.28	57.95	19.3%
1988	462.72	88.79	373.93	61.08	19.2%
1989	499.66	96.31	403.35	66.24	19.3%
1990	512.77	106.98	405.79	73.28	20.9%
1991	518.26	108.61	409.65	73.52	21.0%
1992	527.46	112.82	414.64	79.84	21.4%
1993	539.99	120.93	419.06	93.20	22.4%
1994	572.46	139.48	432.98	114.77	24.4%
1995	607.49	183.96	423.53	135.10	30.3%
1996	622.77	184.56	438.21	136.43	29.6%
1997	637.56	192.97	444.59	137.31	30.3%
1998	553.87	156.28	397.59	128.06	28.2%
1999	499.12	159.32	339.80	120.73	31.9%
2000	474.25	164.96	309.29	121.84	34.8%
2001	550.90	172.36	378.54	131.31	31.3%
2002	679.69	186.25	493.44	142.53	27.4%
2003	841.56	236.40	605.16	177.76	28.1%
2004	884.28	253.50	630.78	199.38	28.7%
2005	912.46	316.67	595.79	254.12	34.7%
2006 ^[1]	980.00	374.50	605.50	297.68	38.2%

[1] Coking coal production of 2006 is estimated.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; SETC, China Energy Annual Review, 1994-2000.

Table 2B.8. Production of Washed Coal, 1949-2006 (Mt)

Year	Raw Coal Input to Coal Washing ^[1]	Percentage of Total Production Washed	Washed Coal Output				Unwashed Coal	Total Coal Production
			Washed Coking Coal	Washed Smelting Coal	Other Coking Coal	Losses and Middlings ^[2]		
1949			0.68					
1950			1.94					42.92
1951			1.58					53.08
1952			2.77					66.58
1953	5.91	8.5%	3.87			2.04		69.73
1954	11.12	13.3%	5.19			5.93		83.66
1955	16.40	16.7%	7.10			9.30		98.38
1956	18.84	17.1%	8.51			10.33		110.36
1957	21.11	16.1%	9.16			11.95		130.78
1958	28.52	10.6%	14.65			13.87		270.00
1959	44.98	12.2%	26.13			18.85		368.79
1960	53.33	13.4%	41.27			12.06		397.21
1961	34.05	12.3%	24.03			10.02		277.62
1962	30.94	14.1%	15.71			15.23		219.55
1963	29.45	13.6%	14.56			14.89		217.07
1964	32.91	15.3%	14.71			18.20		214.57
1965	40.56	17.5%	18.47			22.09		231.80
1966	48.44	19.3%	20.41			28.03		251.47
1967	36.31	17.7%	16.48			19.83		205.70
1968	24.04	10.9%	15.74			8.30		219.59
1969	34.91	13.1%	21.47			13.44		265.95
1970	49.31	13.9%	29.57			19.74		353.99
1971	78.05	19.9%	37.43			40.62		392.30
1972	88.04	21.4%	39.81			48.23		410.47
1973	84.23	20.2%	40.16			44.07		416.97
1974	79.61	19.3%	35.99			43.62		413.17
1975	92.67	19.2%	44.38			48.29		482.24
1976	84.00	17.4%	40.73			43.27		483.45
1977	89.63	16.3%	44.44			45.19		550.68
1978	113.17	18.3%	53.97			59.20		617.86
1979	116.12	18.3%	54.89			61.23		635.54
1980	114.22	18.4%	53.82		6.48	53.92	505.93	620.15
1981	112.54	18.1%	51.59		6.73	54.22	509.10	621.64
1982	122.62	18.4%	53.01		8.20	61.41	543.71	666.33
1983	126.88	17.8%	56.29		8.28	62.31	587.65	714.53
1984	133.99	17.0%	60.17		10.81	63.01	655.24	789.23
1985	142.94	16.4%	66.77		1.60	74.57	729.34	872.28
1986	152.70	17.1%	68.54		1.33	82.83	741.34	894.04
1987	163.28	17.6%	70.25		2.05	90.98	764.68	927.96
1988	171.17	17.5%	74.33		0.99	95.85	808.71	979.88
1989	181.11	17.2%	80.37		0.94	99.80	873.03	1,054.14
1990	191.14	17.7%	84.08		1.58	105.48	888.74	1,079.88
1991	196.82	18.1%	81.37			115.45	890.58	1,087.40
1992	193.13	17.3%	77.42			115.71	923.25	1,116.38
1993	209.24	18.2%	76.15		4.89	133.09	940.46	1,149.70
1994	245.52	19.8%	77.73		6.00	161.79	994.48	1,240.00
1995	212.32	15.6%	81.42		5.92	124.98	1,148.68	1,361.00
1996	232.04	16.6%	87.78		7.55	121.21	1,164.96	1,397.00
1997	231.08	16.8%	91.64		12.25	128.15	1,141.92	1,373.00
1998	193.06	15.4%	80.92	66.48	14.44	124.64	1,056.94	1,250.00
1999	202.44	15.8%	79.75	72.72	7.03		1,077.56	1,280.00
2000	205.84	15.8%	83.90	77.04	6.86		1,093.37	1,299.21
2001	204.49	14.8%	95.50	72.24	22.76		1,177.03	1,381.52
2002	211.00	14.5%	117.03	90.83	26.20		1,243.56	1,454.56
2003	272.63	15.8%	119.99	112.91	7.08		1,449.37	1,722.00
2004	350.41	17.6%	139.54	112.81	26.73		1,641.91	1,992.32
2005	418.81	19.0%	143.01	127.85	15.16		1,785.92	2,204.73
2006	492.56	20.8%					1,880.44	2,373.00

[1] Data are for key enterprises only, and so represent the majority of input, but still less than total input.

[2] Figures are the differences between input and output. Since input is for key enterprises only and output is more nearly a national total, these figures should be considered lower bounds to coal washing losses. Figures for 1953-1979 include "other washed coal". Note that 1991 and 1992 figures are not comparable to other years.

Source: NBS, China Energy Statistical Yearbook, various years; EB, China Coal Industry Yearbook, various years; NBS, China Statistical Yearbook, various years; Ministry of Energy, Energy in China, various years; SETC, China Energy Annual Review, 1994.

Figure 2B.4. Washed Coal & Total Raw Coal Production, 1980-2006

Table 2B.9. China's Crude Oil Production by Region and Oilfield, 1950-2006

1. Million Tons^[1]

East China				Central China				Western China										Offshore								
	Heilongjiang	Shandong	Liaoning		Jilin	Hebei	Henan		Henan	Changqing	Jiangsu	Jiangnan	Jidong	Sichuan	Qing-qian-gui ^[2]	Xinjiang		Qinghai	Yumen	Turfan-Hami	Tarim	Others	Total			
Year	Daqing	Shengli	Liaohe	Dagang	Jilin	Huabei	Zhongyuan		Henan	Changqing	Jiangsu	Jiangnan	Jidong	Sichuan	Qing-qian-gui ^[2]	Xinjiang	Xinjiang	Qinghai	Yumen	Turfan-Hami	Tarim	Others	Total			
1950																0.11	0.11					0.08	0.20			
1951																0.17	0.17					0.14	0.30			
1952																0.09	0.09					0.34	0.43			
1953																0.09	0.09					0.52	0.62			
1954																0.09	0.09					0.70	0.79			
1955																0.09	0.09					0.88	0.96			
1956																0.09	0.09					1.07	1.16			
1957																0.16	0.16					1.29	1.45			
1958																0.70	0.70					1.52	2.22			
1959																1.33	1.33					2.35	3.68			
1960	0.79	0.79														1.59	1.59					2.61	4.99			
1961	1.08	1.08														1.89	1.89					2.51	5.48			
1962	2.04	1.99	0.05													1.70	1.70					2.23	5.98			
1963	2.97	2.65	0.32													1.36	1.36					2.14	6.47			
1964	3.98	3.39	0.59													3.04	3.04					1.97	8.99			
1965	4.96	4.23	0.73													3.97	3.97					2.52	11.45			
1966	7.47	5.38	1.99		0.10											4.29	4.29					2.68	14.44			
1967	8.59	5.78	2.61		0.20											2.57	2.57					2.78	13.94			
1968	9.81	6.17	3.24		0.40											2.15	2.15					3.02	14.98			
1969	17.13	12.78	3.86		0.50											2.44	2.44					4.33	23.90			
1970	23.97	17.59	4.48	0.14	0.96	0.80										1.46	1.46				0.01	4.44	29.88			
1971	32.01	22.05	6.47	0.74	1.63	1.12										1.32	1.32				0.01	5.50	38.84			
1972	34.76	22.88	7.17	1.56	1.89	1.26										2.17	2.17				0.01	8.00	44.94			
1973	43.44	28.18	8.76	2.19	2.99	1.32										1.95	1.95				0.01	8.87	54.28			
1974	53.92	33.86	11.95	2.82	4.10	1.19										1.30	1.30				0.01	10.24	65.48			
1975	66.72	42.08	14.94	4.03	4.32	1.35										1.27	1.27				0.06	6.15	74.20			
1976	68.21	43.04	16.48	2.99	4.09	1.62	3.99	3.99								0.82	0.82				0.10	10.26	83.39			
1977	73.18	46.81	18.13	2.73	3.75	1.77	9.96	9.96								2.05	2.05				0.10	8.03	93.32			
1978	77.80	49.80	18.92	3.82	3.41	1.85	10.95	10.95								2.73	2.73				0.16	12.03	103.67			
1979	79.48	50.29	20.17	4.09	3.07	1.86	11.95	11.95								3.41	3.41				0.17	10.65	105.67			
1980	80.64	51.68	19.97	4.50	2.73	1.76	11.23	11.23								4.09	4.09				0.16	9.43	105.56			
1981	77.01	51.75	16.11	4.97	2.55	1.63	10.47	10.47								4.05	4.05				0.16	9.53	101.22			
1982	77.91	51.73	16.29	5.29	2.90	1.70	13.46	11.31	2.15							4.01	4.01				0.09	6.65	102.12			
1983	81.07	52.14	18.29	6.08	2.78	1.78	13.52	10.51	3.02							4.25	4.25				0.07	7.15	106.07			
1984	89.54	53.72	23.07	7.67	3.17	1.91	15.10	10.23	4.87							4.51	4.51				0.03	5.43	114.61			
1985	97.01	55.10	27.60	9.00	3.19	2.13	15.44	10.30	5.15							4.95	4.95				0.09	7.40	124.90			
1986	101.35	55.55	29.51	10.01	3.91	2.37	16.30	10.00	6.30							5.50	5.50				0.37	7.17	130.69			
1987	105.53	55.55	31.60	11.35	4.17	2.86	14.75	7.95	6.80							5.75	5.75				0.71	7.40	134.14			
1988	108.96	55.70	33.30	12.58	4.22	3.15	16.03	6.12	7.22	2.57				0.12		6.15	6.15				0.76	5.15	137.05			
1989	109.75	55.56	33.36	13.35	4.08	3.41	18.30	5.48	6.98	2.55	1.43	0.80	0.93		0.12	7.67	6.40	0.73	0.54		0.95	0.97	137.64			
1990	110.15	55.66	33.51	13.60	3.83	3.55	17.90	5.35	6.30	2.52	1.47	0.86	0.83	0.35	0.13	8.15	6.80	0.81	0.55		1.43	0.68	138.31			
1991	110.09	55.62	33.55	13.70	3.81	3.41	17.23	5.01	6.10	2.38	1.54	0.87	0.73	0.37	0.14	8.74	7.02	1.02	0.69		2.41	2.52	140.99			
1992	110.29	55.66	33.46	13.85	3.90	3.42	16.69	4.80	5.80	2.30	1.64	0.86	0.77	0.39	0.14	10.33	7.30	1.06	1.08	0.89	3.97	0.82	142.10			
1993	110.20	55.90	32.70	14.20	4.05	3.35	16.43	4.60	5.50	2.13	1.80	0.86	0.81	0.43	0.15	11.89	7.60	1.08	0.45	1.15	1.60	4.53	2.13	145.17		
1994	109.48	56.01	30.90	15.02	4.25	3.30	16.01	4.64	4.83	2.05	1.96	0.92	0.87	0.46	0.16	12.83	7.90	1.13	0.43	1.41	1.95	6.47	1.29	146.08		
1995	109.23	56.01	30.00	15.52	4.30	3.40	15.53	4.66	4.10	1.92	2.20	1.01	0.85	0.51	0.17	14.26	7.90	1.22	0.40	2.21	2.53	8.41	2.61	150.04		
1996	108.21	56.01	29.12	15.04	4.34	3.70	16.08	4.67	4.00	1.87	2.75	1.07	0.87	0.57	0.21	16.16	8.30	1.40	0.43	2.92	3.11	15.01	1.88	157.33		
1997	107.42	56.01	28.01	15.04	4.35	4.00	16.74	4.68	4.02	1.85	3.30	1.17	0.82	0.61	0.23	17.91	8.70	1.60	0.40	3.00	4.20	16.29	2.39	160.74		
1998	105.81	55.70	27.31	14.52	4.30	3.97	17.51	4.73	4.00	1.86	4.00	1.26	0.76	0.64	0.22	17.67	16.28	8.71	1.76	0.40	2.95	3.85	16.32	3.69	161.00	
1999	103.14	54.50	26.65	14.30	4.10	3.58	17.08	4.68	3.75	1.83	4.30		1.34	0.63	0.21	18.49	17.40	9.06	1.90	0.40	2.95	4.19	16.17	5.11	160.00	
2000	101.51	53.00	26.75	14.01	4.00	3.75	18.06	4.56	3.77	5.62	1.85	4.64	1.55	0.87	0.62	0.17	18.83	18.48	9.20	2.00	0.43	2.85	4.35	17.57	7.03	163.00
2001	100.03	51.50	26.68	13.85	3.95	4.04	18.68	4.51	3.80	5.67	1.85	5.20	1.57	0.95	0.63	0.14	19.54	19.26	9.68	2.06	0.52	2.55	4.73	18.22	7.49	163.96
2002	98.74	50.13	26.72	13.51	3.94	4.44	19.52	4.38	3.80	5.68	1.88	6.10	1.57	0.97	0.65	0.14	20.32	20.15	10.05	2.14	0.60	2.51	5.02	20.99	7.44	167.00
2003	97.24	48.40	26.66	13.22	4.21	4.75	20.29	4.35	3.62	5.50	1.86	7.02	1.58	0.95	0.75	0.14	21.10	21.20	10.60	2.20	0.70	2.35	5.25	21.86	9.11	169.60
2004	95.91	46.40	26.74	12.83	4.88	5.06	21.42	4.32	3.35	5.23	1.88	8.11	1.62	0.96	1.00	0.14	21.71	22.28	11.11	2.22	0.75	2.25	5.38	24.40	12.43	175.87
2005	94.92	44.95	26.95	12.42	5.10	5.51	22.84	4.35	3.20	5.07	1.87	9.40	1.65	0.96	1.25	0.14	22.74	24.06	11.65	2.21	0.77	2.10	6.00	27.64	13.21	181.35
2006	94.03	43.38	27.42	12.01	5.31	5.91	24.42	4.40	3.11	4.92	1.81	10.59	1.67	0.96	1.71	0.14	23.07	24.75	11.92	2.23	0.81	2.06	6.05	27.60	15.64	184.77

[1] 1 tonne crude oil = 7.33 barrels. Because a different source was used, total production figures for 1950-1985 differ slightly from the figures in Table 2A.1, Primary Production.

[2] Abbreviation for the Provinces of Yunnan, Guizhou, Guangxi.

[3] 2000-2006 data are from China National Petroleum Corporation, China Petroleum & Chemical Corporation and China Offshore Oil Corporation.

Source: EIA, The Petroleum Resources of China, 1987; Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; China Statistical Yearbook, various years; SETC, China Energy Annual Review, 1994; China National Petroleum Corporation, various years; Interfax, China Energy Report Weekly, Volume III, Issue 3 & Issue 2, January, 2004; oilfields companies; NBS, 2004. China ASPO 2005; Xinjiang Statistical Information, 2005; China Petroleum Newspaper, Oct. 29, 2002.

Table 2B.9. China's Crude Oil Production by Region and Oilfield, 1950-2006

2. Thousand Barrels per Day

East China				Central China			Henan			Western China								Xinjiang					Offshore				
Year	Daqing	Shengli	Liaoh	Dagang	Jilin	Huabei	Zhongyuan	Henan	Changqing	Jiangsu	Jiangnan	Jidong	Sichuan	Qing-qian-gui ^[1]	Xinjiang	Xinjiang	Qinghai	Yumen	Turfan-Hami	Tarim	Others	Total					
1950															2	2					2	4					
1951															3	3					3	6					
1952															2	2					7	9					
1953															2	2					11	12					
1954															2	2					14	16					
1955															2	2					18	19					
1956															2	2					21	23					
1957															3	3					26	29					
1958															14	14					31	45					
1959															27	27					47	74					
1960	15.84	16													32	32					52	100					
1961	21.60	22													38	38					50	110					
1962	40.92	40	1												34	34					45	120					
1963	59.62	53	6												27	27					43	130					
1964	79.93	68	12												61	61					40	180					
1965	99.70	85	15												80	80					51	230					
1966	150.00	108	40	2											86	86					54	290					
1967	172.50	116	53	4											52	52					56	280					
1968	197.00	124	65	8											43	43					61	301					
1969	344.10	257	78	10											49	49					87	480					
1970	481.39	353	90	3	19										29	29					89	600					
1971	642.81	443	130	15	33										26	26					110	780					
1972	698.10	459	144	31	38										44	44					161	902					
1973	872.47	566	176	44	60										39	39					178	1,090					
1974	1,082.90	680	240	57	82										26	26					206	1,315					
1975	1,339.91	845	300	81	87										25	25					1	123	1,490				
1976	1,369.88	864	331	60	82	80	80								16	16					2	206	1,675				
1977	1,469.68	940	364	55	75	200	200								41	41					2	161	1,874				
1978	1,562.36	1,000	380	77	68	220	220								55	55					3	242	2,082				
1979	1,596.19	1,010	405	82	62	240	240								68	68					3	214	2,122				
1980	1,619.48	1,038	401	90	55	226	226								82	82					3	189	2,120				
1981	1,546.52	1,039	324	100	51	210	210								81	81					3	191	2,012				
1982	1,564.53	1,039	327	106	58	270	227	43							81	81					2	134	2,045				
1983	1,628.13	1,047	367	122	56	272	211	61							85	85					1	144	2,120				
1984	1,798.16	1,079	463	154	64	303	205	98							91	91					1	109	2,302				
1985	1,948.27	1,106	554	181	64	310	207	103							99	99					2	149	2,480				
1986	2,035.33	1,116	593	201	79	327	201	127							110	110					7	144	2,625				
1987	2,119.28	1,116	635	228	84	296	160	137							115	115					14	149	2,694				
1988	2,188.16	1,119	669	253	85	322	123	145	52					2	124	124					15	103	2,752				
1989	2,204.06	1,116	670	268	82	68	368	110	51	29	16	19		2	154	129	15	11			19	20	2,764				
1990	2,212.07	1,118	673	273	77	71	359	107	51	29	17	17	7	3	2	164	137	16	11		29	14	2,778				
1991	2,210.89	1,117	674	275	76	68	346	101	48	31	17	15	7	3	2	175	141	20	14		48	51	2,831				
1992	2,214.76	1,118	672	278	78	69	335	96	46	33	17	15	8	3	207	147	21	22		18	80	16	2,848				
1993	2,213.10	1,123	657	285	81	67	330	92	43	36	17	16	9	3	3	239	153	22	9	23	32	91	43	2,910			
1994	2,198.62	1,125	621	302	85	66	321	93	41	39	18	17	9	3	2	258	159	23	9	28	39	130	26	2,933			
1995	2,193.64	1,125	603	312	86	68	312	94	38	44	20	17	10	3	2	286	159	24	8	44	51	169	52	2,988			
1996	2,173.03	1,125	585	302	87	74	323	94	38	55	21	17	11	4	1	325	167	28	9	59	62	301	38	3,159			
1997	2,157.13	1,125	563	302	87	80	336	94	37	66	24	16	12	5	1	360	175	32	8	60	84	327	48	3,220			
1998	2,124.82	1,119	548	292	86	80	352	95	37	80	25	15	13	4	1	355	327	175	35	8	59	77	328	74	3,217		
1999	2,071.24	1,095	535	287	82	72	343	94	37	86		27	13	4	7	371	349	182	38	8	59	84	325	103	3,213		
2000	2,038.54	1,064	537	281	80	75	363	92	76	113	37	93	31	17	12	3	378	371	185	40	9	57	87	353	141	3,273	
2001	2,008.75	1,034	536	278	79	81	375	91	76	114	37	104	32	19	13	3	392	387	194	41	10	51	95	366	150	3,293	
2002	1,982.86	1,007	536	271	79	89	392	88	76	114	38	123	32	19	13	3	408	405	202	43	12	50	101	421	149	3,354	
2003	1,952.74	972	535	266	85	95	407	87	73	110	37	141	32	19	15	3	424	426	213	44	14	47	105	439	183	3,406	
2004	1,926.17	932	537	258	98	102	430	87	67	105	38	163	33	19	20	3	1	436	447	223	45	15	45	108	490	250	3,532
2005	1,906.24	903	541	249	102	111	459	87	64	102	38	189	33	19	25	3	1	457	483	234	44	15	42	121	555	265	3,642
2006	1,888.39	871	551	241	107	119	490	88	62	99	36	213	34	19	34	3	1	463	497	239	45	16	41	122	554	314	3,711

[1] Abbreviation for the Provinces of Yunnan, Guizhou, Guangxi.

[2] Includes volumes produced from Extended Drill Stem Tests (EDST).

Source: EIA, The Petroleum Resources of China, 1987; Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; China Statistical Yearbook, various years; SETC, China Energy Annual Review, 1994; China National Petroleum Corporation, various years; Interfax, China Energy Report Weekly, Volume III, Issue 3 & Issue 2, January, 2004; oilfields companies; NBS, 2004.

Table 2B.9. China's Crude Oil Production by Region and Oilfield, 1950-2006

3. Growth Over Previous Year

East China			Central China					Henan					Western China					Xinjiang					Offshore				
Year	Daqing	Shengli	Liaoh	Dagang	Jilin		Huabei	Zhongyuan	Henan	Changqing	Jiangsu	Jiangnan	Jidong	Sichuan	Qing-qian-gui ^[1]		Xinjiang	Qinghai	Yumen	Turfan-Hami	Tarim		Others	Total			
1950																											
1951																	44%	44%					64%	53%			
1952																	-44%	-44%					147%	43%			
1953																	2%	2%					54%	43%			
1954																	-4%	-4%					32%	27%			
1955																	-5%	-5%					26%	22%			
1956																	1%	1%					22%	20%			
1957																	86%	86%					20%	25%			
1958																	326%	326%					18%	53%			
1959																	92%	92%					54%	66%			
1960																	19%	19%					11%	36%			
1961	36%	36%															19%	19%					-4%	10%			
1962	89%	85%															-10%	-10%					-11%	9%			
1963	46%	33%	597%														-20%	-20%					-4%	8%			
1964	34%	28%	86%														123%	123%					-8%	39%			
1965	25%	25%	23%														31%	31%					28%	27%			
1966	50%	27%	172%														8%	8%					7%	26%			
1967	15%	7%	31%		100%												-40%	-40%					4%	-3%			
1968	14%	7%	24%		100%												-17%	-17%					9%	7%			
1969	75%	107%	19%		25%												14%	14%					43%	60%			
1970	40%	38%	16%		92%												-40%	-40%					2%	25%			
1971	34%	25%	44%	429%	71%												-10%	-10%					24%	30%			
1972	9%	4%	11%	112%	16%												64%	64%					45%	16%			
1973	25%	23%	22%	40%	58%												-10%	-10%					11%	21%			
1974	24%	20%	36%	29%	37%												-33%	-33%					15%	21%			
1975	24%	24%	25%	43%	5%												-3%	-3%					-40%	13%			
1976	2%	2%	10%	-26%	-5%												-35%	-35%				67%	67%	12%			
1977	7%	9%	10%	-9%	-8%	149%	149%										150%	150%				0%	-22%	12%			
1978	6%	6%	4%	40%	-9%	10%	10%										33%	33%				60%	50%	11%			
1979	2%	1%	7%	7%	-10%	9%	9%										25%	25%				6%	-11%	2%			
1980	1%	3%	-1%	10%	-11%	-6%	-6%										20%	20%				-6%	-12%	0%			
1981	-5%	0%	-19%	10%	-7%	-7%	-7%										-1%	-1%				0%	1%	-5%			
1982	1%	0%	1%	6%	14%	29%	8%										-1%	-1%				-44%	-30%	2%			
1983	4%	1%	12%	15%	-4%	0%	-7%	40%									6%	6%				-22%	7%	4%			
1984	10%	3%	26%	26%	14%	12%	-3%	61%									6%	6%				-57%	-24%	9%			
1985	8%	3%	20%	17%	1%	2%	1%	6%									10%	10%				200%	36%	8%			
1986	4%	1%	7%	11%	23%	6%	-3%	22%									11%	11%				311%	-3%	6%			
1987	4%	0%	7%	13%	7%	-10%	-20%	8%									5%	5%				92%	3%	3%			
1988	3%	0%	5%	11%	1%	9%	-23%	6%									7%	7%				7%	-30%	2%			
1989	1%	0%	0%	6%	-3%	14%	-10%	-3%	-1%					4%			25%	4%				25%	-81%	0%			
1990	0%	0%	0%	2%	-6%	4%	-2%	-10%	-1%	2%	7%	-11%		6%			6%	6%	11%	2%		51%	-31%	0%			
1991	0%	0%	0%	1%	-1%	-4%	-4%	-6%	-3%	5%	1%	-12%	6%	5%	9%		7%	3%	26%	27%		69%	273%	2%			
1992	0%	0%	0%	1%	2%	0%	-3%	-4%	-5%	7%	-1%	4%	4%	2%			18%	4%	3%	56%		65%	-67%	1%			
1993	0%	0%	-2%	3%	4%	-2%	-2%	-4%	-5%	10%	1%	6%	11%	8%			15%	4%	3%	-59%	80%	14%	160%	2%			
1994	-1%	0%	-6%	6%	5%	-1%	-3%	1%	-12%	9%	7%	7%	8%	3%			8%	4%	4%	-3%		43%	-39%	1%			
1995	0%	0%	-3%	3%	1%	3%	-3%	0%	-15%	12%	10%	-2%	11%	10%	-16%		11%	0%	8%	-6%	56%	30%	30%	102%	2%		
1996	-1%	0%	-3%	-3%	1%	9%	4%	0%	-2%	25%	6%	2%	12%	23%	-31%		13%	5%	15%	7%	32%	23%	78%	-28%	6%		
1997	-1%	0%	-4%	0%	8%	4%	0%	0%	-1%	20%	10%	-5%	7%	10%	-30%		11%	5%	14%	-7%	3%	35%	9%	27%	2%		
1998	-1%	-1%	-3%	-3%	-1%	-1%	5%	1%	0%	21%	7%	-8%	4%	-6%	2%	-1%	-1%	0%	10%	0%	-2%	-8%	0%	54%	0%		
1999	-3%	-2%	-2%	-1%	-5%	-10%	-2%	-1%	-6%	-2%	7%	-100%	77%	-1%	-4%	580%	5%	7%	4%	8%	0%	0%	9%	-1%	39%	0%	
2000	-2%	-3%	0%	-2%	5%	6%	-3%	0%	1%	8%		-35%	-2%	-17%	-91%	2%	6%	2%	5%	7%	-3%	4%	9%	38%	2%		
2001	-1%	-3%	0%	-1%	8%	3%	-1%	1%	1%	0%	12%	1%	9%	1%	-18%	10%	4%	4%	5%	3%	21%	-11%	9%	4%	7%	1%	
2002	-1%	-3%	0%	-2%	0%	10%	4%	-3%	0%	0%	2%	17%	0%	1%	4%	-9%	4%	5%	4%	4%	16%	-2%	6%	15%	-1%	2%	
2003	-2%	-3%	0%	-2%	7%	7%	4%	-1%	-5%	-3%	-1%	15%	1%	-1%	15%	-1%	4%	5%	5%	3%	16%	-6%	5%	4%	22%	2%	
2004	-1%	-4%	0%	-3%	16%	6%	6%	-1%	-7%	-5%	1%	16%	2%	1%	34%	1%	3%	5%	5%	1%	7%	-4%	2%	12%	36%	4%	
2005	-1%	-3%	1%	-3%	4%	9%	7%	1%	-5%	-3%	-1%	16%	2%	0%	25%	0%	5%	8%	5%	0%	3%	-7%	11%	13%	6%	3%	
2006	-1%	-3%	2%	-3%	4%	7%	7%	1%	-3%	-3%	-3%	13%	2%	0%	37%	1%	-1%	3%	2%	1%	5%	-2%	1%	0%	18%	2%	

[1] Abbreviation for the Provinces of Yunnan, Guizhou, Guangxi.

[2] Includes volumes produced from Extended Drill Stem Tests (EDST).

Source: EIA, The Petroleum Resources of China, 1987; Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; China Statistical Yearbook, various years; SETC, China Energy Annual Review, 1994; China National Petroleum Corporation, various years; Interfax, China Energy Report Weekly, Volume III, Issue 3 & Issue 2, January, 2004; oilfields companies; NBS, 2004.

Table 2B.9. China's Crude Oil Production by Region and Oilfield, 1950-2006

4. Shares of Total Production

East China				Central China				Western China							Xinjiang					Offshore			
Year	Daqing	Shengli	Liaohe	Dagang	Jilin	Huabei	Zhongyuan	Henan	Changqing	Jiangsu	Jiangnan	Jidong	Sichuan	Qing-qian-gu ^[1]	Xinjiang	Qinghai	Yumen	Turfan-Hami	Tarim	Others	Total		
1950															57.7%	57.7%				42.3%	100%		
1951															54.5%	54.5%				45.5%	100%		
1952															21.3%	21.3%				78.7%	100%		
1953															15.3%	15.3%				84.7%	100%		
1954															11.5%	11.5%				88.5%	100%		
1955															9.0%	9.0%				91.0%	100%		
1956															7.6%	7.6%				92.4%	100%		
1957															11.2%	11.2%				88.8%	100%		
1958															31.3%	31.3%				68.7%	100%		
1959															36.2%	36.2%				63.8%	100%		
1960	15.8%	15.8%	0.0%											0.0%	31.9%	31.9%				52.3%	100%		
1961	19.6%	19.6%	0.0%											0.0%	34.5%	34.5%				45.8%	100%		
1962	34.1%	33.3%	0.8%											0.0%	28.5%	28.5%				37.4%	100%		
1963	45.9%	40.9%	4.9%											0.0%	21.1%	21.1%				33.1%	100%		
1964	44.3%	37.7%	6.6%											0.0%	33.8%	33.8%				21.9%	100%		
1965	43.3%	37.0%	6.4%											0.0%	34.7%	34.7%				22.0%	100%		
1966	51.7%	37.2%	13.8%	0.7%										0.0%	29.7%	29.7%				18.6%	100%		
1967	61.6%	41.4%	18.8%	1.4%										0.0%	18.5%	18.5%				19.9%	100%		
1968	65.5%	41.2%	21.6%	2.7%										0.0%	14.3%	14.3%				20.2%	100%		
1969	71.7%	53.5%	16.1%	2.1%										0.0%	10.2%	10.2%				18.1%	100%		
1970	80.2%	58.9%	15.0%	0.5%	3.2%	2.7%								0.0%	4.9%	4.9%				14.9%	100%		
1971	82.4%	56.8%	16.7%	1.9%	4.2%	2.9%								0.0%	3.4%	3.4%				14.2%	100%		
1972	77.4%	50.9%	16.0%	3.5%	4.2%	2.8%								0.0%	4.8%	4.8%				17.8%	100%		
1973	80.0%	51.9%	16.1%	4.0%	5.5%	2.4%								0.0%	3.6%	3.6%				16.3%	100%		
1974	82.3%	51.7%	18.3%	4.3%	6.3%	1.8%								0.0%	2.0%	2.0%				15.6%	100%		
1975	89.9%	56.7%	20.1%	5.4%	5.8%	1.8%								0.0%	1.7%	1.7%				8.3%	100%		
1976	81.8%	51.6%	19.8%	3.6%	4.9%	1.9%	4.8%	4.8%						0.0%	1.0%	1.0%				12.3%	100%		
1977	78.4%	50.2%	19.4%	2.9%	4.0%	1.9%	10.7%	10.7%						0.0%	2.2%	2.2%				8.6%	100%		
1978	75.0%	48.0%	18.3%	3.7%	3.3%	1.8%	10.6%	10.6%						0.0%	2.6%	2.6%				11.6%	100%		
1979	75.2%	47.6%	19.1%	3.9%	2.9%	1.8%	11.3%	11.3%						0.0%	3.2%	3.2%				10.1%	100%		
1980	76.4%	49.0%	18.9%	4.3%	2.6%	1.7%	10.6%	10.6%						0.0%	3.9%	3.9%				8.9%	100%		
1981	76.1%	51.1%	15.9%	4.9%	2.5%	1.6%	10.3%	10.3%						0.0%	4.0%	4.0%				9.4%	100%		
1982	76.3%	50.7%	16.0%	5.2%	2.8%	1.7%	13.2%	11.1%	2.1%					0.0%	3.9%	3.9%				6.5%	100%		
1983	76.4%	49.2%	17.2%	5.7%	2.6%	1.7%	12.8%	9.9%	2.8%					0.0%	4.0%	4.0%				6.7%	100%		
1984	78.1%	46.9%	20.1%	6.7%	2.8%	1.7%	13.2%	8.9%	4.3%					0.0%	3.9%	3.9%				4.7%	100%		
1985	77.7%	44.1%	22.1%	7.2%	2.6%	1.7%	12.4%	8.2%	4.1%					0.0%	4.0%	4.0%				5.9%	100%		
1986	77.6%	42.5%	22.6%	7.7%	3.0%	1.8%	12.5%	7.7%	4.8%					0.0%	4.2%	4.2%			0.3%	5.5%	100%		
1987	78.7%	41.4%	23.6%	8.5%	3.1%	2.1%	11.0%	5.9%	5.1%					0.0%	4.3%	4.3%			0.5%	5.5%	100%		
1988	79.5%	40.6%	24.3%	9.2%	3.1%	2.3%	11.7%	4.5%	5.3%	1.9%	0.0%	0.0%	0.0%	0.1%	0.0%	4.5%			0.6%	3.8%	100%		
1989	79.7%	40.4%	24.2%	9.7%	3.0%	2.5%	13.3%	4.0%	5.1%	1.9%	1.0%	0.6%	0.7%	0.1%	0.0%	5.6%	4.7%	0.5%	0.7%	0.7%	100%		
1990	79.6%	40.2%	24.2%	9.8%	2.8%	2.6%	12.9%	3.9%	4.6%	1.8%	1.1%	0.6%	0.6%	0.1%	0.1%	5.9%	4.9%	0.6%		1.0%	0.5%	100%	
1991	78.1%	39.5%	23.8%	9.7%	2.7%	2.4%	12.2%	3.6%	4.3%	1.7%	1.1%	0.6%	0.5%	0.1%	0.1%	6.2%	5.0%	0.7%		1.7%	1.8%	100%	
1992	77.6%	39.2%	23.5%	9.7%	2.7%	2.4%	11.7%	3.4%	4.1%	1.6%	1.2%	0.6%	0.5%	0.1%	0.0%	7.3%	5.1%	0.7%	0.8%	0.0%	0.6%	100%	
1993	75.9%	38.5%	22.5%	9.8%	2.8%	2.3%	11.3%	3.2%	3.8%	1.5%	1.2%	0.6%	0.6%	0.1%	0.1%	8.2%	5.2%	0.7%	0.3%	0.8%	1.1%	100%	
1994	74.9%	38.3%	21.2%	10.3%	2.9%	2.3%	11.0%	3.2%	3.3%	1.4%	1.3%	0.6%	0.6%	0.1%	0.1%	8.8%	5.4%	0.8%	0.3%	1.0%	1.3%	100%	
1995	72.8%	37.3%	20.0%	10.3%	2.9%	2.3%	10.3%	3.1%	2.7%	1.3%	1.5%	0.7%	0.6%	0.1%	0.1%	9.5%	5.3%	0.8%	0.3%	1.5%	1.7%	100%	
1996	68.8%	35.6%	18.5%	9.6%	2.8%	2.4%	10.2%	3.0%	2.5%	1.2%	1.7%	0.7%	0.5%	0.1%	0.0%	10.3%	5.3%	0.9%	0.3%	1.9%	2.0%	100%	
1997	66.8%	34.8%	17.4%	9.4%	2.7%	2.5%	10.4%	2.9%	2.5%	1.2%	2.1%	0.7%	0.5%	0.1%	0.0%	11.1%	5.4%	1.0%	0.2%	1.9%	2.6%	100%	
1998	65.7%	34.6%	17.0%	9.0%	2.7%	2.5%	10.9%	2.9%	2.5%	1.2%	2.5%	0.8%	0.5%	0.1%	0.0%	11.0%	10.1%	5.4%	1.1%	1.8%	2.4%	100%	
1999	64.5%	34.1%	16.7%	8.9%	2.6%	2.2%	10.7%	2.9%	2.3%	1.1%	2.7%	0.0%	0.8%	0.1%	0.2%	11.6%	10.9%	5.7%	1.2%	1.8%	2.6%	100%	
2000	62.3%	32.5%	16.4%	8.6%	2.5%	2.3%	11.1%	2.8%	2.3%	3.4%	1.1%	2.8%	1.0%	0.5%	0.4%	0.1%	11.6%	11.3%	5.6%	1.2%	1.7%	2.7%	100%
2001	61.0%	31.4%	16.3%	8.4%	2.4%	2.5%	11.4%	2.7%	2.3%	3.5%	1.1%	3.2%	1.0%	0.6%	0.4%	0.1%	11.9%	11.7%	5.9%	1.3%	1.6%	2.9%	100%
2002	59.1%	30.0%	16.0%	8.1%	2.4%	2.7%	11.7%	2.6%	2.3%	3.4%	1.1%	3.7%	0.9%	0.6%	0.4%	0.1%	12.2%	12.1%	6.0%	1.3%	1.5%	3.0%	100%
2003	57.3%	28.5%	15.7%	7.8%	2.5%	2.8%	12.0%	2.6%	2.1%	3.2%	1.1%	4.1%	0.9%	0.6%	0.4%	0.1%	12.4%	12.5%	6.3%	1.3%	1.4%	3.1%	100%
2004	54.5%	26.4%	15.2%	7.3%	2.8%	2.9%	12.2%	2.5%	1.9%	3.0%	1.1%	4.6%	0.9%	0.5%	0.6%	0.1%	12.3%	12.7%	6.3%	1.3%	1.4%	3.1%	100%
2005	52.3%	24.8%	14.9%	6.8%	2.8%	3.0%	12.6%	2.4%	1.8%	2.8%	1.0%	5.2%	0.9%	0.5%	0.7%	0.1%	12.5%	13.3%	6.4%	1.2%	1.4%	3.3%	100%
2006	50.9%	23.5%	14.8%	6.5%	2.9%	3.2%	13.2%	2.4%	1.7%	2.7%	1.0%	5.7%	0.9%	0.5%	0.9%	0.1%	12.5%	13.4%	6.4%	1.2%	1.4%	3.3%	100%

[1] Abbreviation for the Provinces of Yunnan, Guizhou, Guangxi.

[2] Includes volumes produced from Extended Drill Stem Tests (EDST).

Source: EIA, The Petroleum Resources of China, 1987; Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; China Statistical Yearbook, various years; SETC, China Energy Annual Review, 1994; China National Petroleum Corporation, various years; Interfax, China Energy Report Weekly, Volume III, Issue 3 & Issue 2, January, 2004; oilfields companies; NBS, 2004.

Figure 2B.5. Crude Oil Production by Region, 1950-2006

Figure 2B.6. Crude Oil Production Shares by Region, 1950-2006

Table 2B.10. Selected Technical Indicators of Crude Oil Production, 1970-2006

Year	Loss Rates			Crude Production (Mt)	Oilfield Use & Loss (Mt)	Electricity Consumption ^[2] (kWh/ton)
	Oilfield Self-Use ^[1] (%)	Oilfield Crude Losses (%)	Total (%)			
1970	1.34%	1.89%	3.23%	29.88	0.97	
1971	1.01%	2.12%	3.13%	38.84	1.22	
1972	1.22%	2.90%	4.12%	44.94	1.85	32.70
1973	1.34%	2.55%	3.89%	54.28	2.11	24.60
1974	1.22%	2.64%	3.86%	65.48	2.53	24.70
1975	1.25%	2.93%	4.18%	74.20	3.10	25.73
1976	1.68%	2.58%	4.26%	83.39	3.55	28.80
1977	1.56%	2.65%	4.21%	93.32	3.93	32.55
1978	1.74%	2.37%	4.11%	103.67	4.26	35.01
1979	1.84%	2.49%	4.33%	105.67	4.58	40.82
1980	1.64%	2.27%	3.91%	105.56	4.13	38.84
1981	1.54%	2.30%	3.84%	100.19	3.85	39.82
1982	1.50%	2.29%	3.79%	101.83	3.86	42.96
1983	1.50%	2.30%	3.80%	105.57	4.01	45.08
1984	1.46%	2.03%	3.49%	114.64	4.00	47.24
1985	1.52%	1.65%	3.17%	123.49	3.91	51.58
1986	1.55%	1.57%	3.12%	130.69	4.08	53.39
1987	1.64%	1.55%	3.19%	134.14	4.28	64.50
1988	1.70%	1.90%	3.60%	137.05	4.93	73.27
1989	1.82%	1.76%	3.58%	137.65	4.93	78.75
1990	2.01%	1.80%	3.81%	138.31	5.27	87.97
1991	2.10%	1.80%	3.90%	140.99	5.50	102.62
1992	2.15%	1.80%	3.95%	142.10	5.61	107.05
1993	2.29%	1.73%	4.02%	145.24	5.84	119.02
1994	2.44%	1.82%	4.26%	146.08	6.22	127.86
1995	1.77%	1.82%	3.59%	150.05	5.39	135.47
1996	1.90%	1.73%	3.63%	157.33	5.71	138.00
1997	1.97%	1.90%	3.87%	160.74	6.22	143.06
1998	1.92%	1.85%	3.77%	161.00	6.07	143.92
1999	2.03%	1.88%	3.91%	160.00	6.26	141.69
2000	1.83%	1.93%	3.76%	163.00	6.13	137.61
2001	1.73%	2.03%	3.76%	163.96	6.16	136.06
2002	1.54%	2.00%	3.54%	167.00	5.91	141.14
2003				169.60		
2004				175.87		
2005				181.35		
2006				184.77		

[1] Sometimes referred to as "autoconsumption".

[2] Electricity consumed per metric ton of crude oil produced; does not include refinery consumption.

N.B. Data for loss rates and electricity consumption are no longer reported in the sources.

Source: NBS, China Statistical Yearbook, various years; NBS, Statistical Yearbook of China's Industrial Economy, various years.

Table 2B.11. Petroleum Products (Mt)

Year	Crude Oil Throughput	Gasoline	Kerosene/ Jet Fuel	Diesel Oil	Fuel Oil ^[1]	LPG	Refinery Gas	Chemical Feedstock ^[2]	Lubricants
1973		5.74	2.41	10.40					
1974		6.63	2.61	11.79					
1975		7.37	2.90	13.24					
1976		8.16	2.94	14.89					
1977		8.67	3.17	16.16					
1978	70.69	9.91	3.56	18.26					
1979	71.46	10.70	4.09	18.73					
1980	75.38	10.79	3.99	18.28	31.42	1.23		2.79	1.97
1981	74.76	11.12	3.67	17.78	28.18	1.11	2.02	3.43	1.50
1982	75.33	11.14	3.84	17.46	27.99	1.24	1.88	4.19	1.40
1983	80.41	12.64	4.10	19.04	28.97	1.50	1.98	4.63	1.34
1984	82.51	13.50	4.08	19.47	28.57	1.54	2.18	4.88	1.47
1985	85.89	14.72	4.05	20.23	28.36	1.60	2.18	4.92	1.58
1986	92.60	16.85	4.16	22.31	29.58	2.02	2.43	4.65	1.64
1987	97.75	17.37	4.18	23.66	31.31	2.15	2.53	6.69	2.02
1988	102.39	18.93	3.85	24.60	32.19	2.32	2.59	7.05	2.10
1989	106.62	20.68	3.95	25.82	32.38	2.55	2.71	7.58	2.11
1990	109.61	21.57	3.93	26.09	32.68	2.62	2.81	7.85	1.97
1991	116.39	24.04	4.06	28.53	32.44	3.07	3.09	8.01	2.03
1992	125.41	27.26	3.95	31.71	32.32	3.50	3.26	8.33	2.19
1993	131.00	31.60	3.83	35.43	31.95	4.13	3.24	8.15	1.88
1994	132.84	28.54	4.07	34.80	30.15	4.45	3.81	9.86	1.74
1995	143.53	30.52	4.46	39.73	29.61	5.41	4.28	11.85	1.87
1996	151.34	32.81	5.36	44.19	25.05	6.06	4.50	13.33	2.27
1997	153.72	35.18	5.77	49.25	20.80	6.68	5.34	14.99	2.31
1998	152.39	34.65	5.75	48.84	18.34	7.47	5.45	16.56	2.15
1999	176.50	37.65	7.10	63.03	16.53	8.15	5.14	16.74	2.38
2000	163.00	41.35	8.72	70.80	20.54	9.15	5.67	20.08	3.33
2001	163.96	41.52	7.89	74.86	18.64	9.51	5.50	18.59	3.53
2002	167.00	43.20	8.26	76.69	18.46	10.35	5.62	21.05	3.63
2003	169.60	47.91	8.55	85.33	20.05	12.10	5.75	23.53	4.11
2004	175.87	52.50	9.71	101.62	20.83	14.08	6.75	26.12	4.64
2005	181.35	53.90	9.90	110.41	24.17	14.29	7.94	29.16	5.67
2006	184.77	55.91	9.69	116.53	22.65	17.40	8.20	33.03	5.72

Year	Asphalt	Petroleum Coke	Wax	Solvents	Aromatics	Commercial Feedstocks	Other/ Balance ^[3]	Refining Losses	Product Subtotal
1980							4.10	0.82	74.56
1981	1.74						3.52	0.69	74.07
1982							5.59	0.60	74.73
1983	1.77	0.87	0.47	0.34	0.71	0.81	0.52	0.73	79.69
1984	2.09	0.96	0.50	0.43	0.73	0.99	0.45	0.67	81.84
1985	2.38	0.92	0.56	0.43	0.90	1.41	0.51	1.13	84.76
1986	2.57	1.05	0.58	0.48	0.97	1.16	0.69	1.47	91.13
1987	2.65	1.17	0.62	0.50	0.94	1.26	-1.01	1.72	96.03
1988	2.18	1.22	0.67	0.47	1.20	1.76	-0.54	1.81	100.58
1989	2.63	1.29	0.69	0.47	1.13	1.62	-0.79	1.82	104.80
1990	2.73	1.36	0.69	0.51	1.22	1.99	-1.36	2.96	106.65
1991	3.12	1.58	0.67	0.50		2.54	2.89	2.91	113.49
1992	3.43	1.65	0.69	0.55		2.91	1.76	5.15	120.26
1993	3.27	1.88	0.72	0.48		3.29	0.92	3.46	127.54
1994	3.37	2.03	0.76	0.57		2.64	5.40	4.46	128.38
1995	3.41	2.40	0.85	0.69		2.84	5.64	4.25	139.28
1996	3.38	2.91	0.95	0.81		4.14	7.37	2.71	148.63
1997	3.73	3.20	0.92	1.55		4.15	1.38	3.82	149.90
1998	3.49	3.57	1.12	1.80		5.21		3.10	157.90
1999	4.19	3.92	1.30	1.32		4.03		5.67	154.33
2000	4.71	4.52	1.37	1.97		6.66		7.22	155.78
2001	5.81	4.86	1.35	1.82		6.35		6.17	157.79
2002	7.10	5.08	1.31	2.07		7.00		8.92	158.08
2003	8.61	6.03	1.48	2.41		7.11		9.71	159.89
2004	9.03	7.35	1.67	2.02		7.50		11.95	163.92
2005	10.38	9.69	1.64	1.76		7.66		11.67	169.69
2006	12.38	10.98	1.67	1.60		8.65		12.77	171.99

[1] Includes refinery use.

[2] Includes middle distillates and naphtha, termed "light oil for the petrochemical industry"

[3] This is the balance of product subtotal (refinery throughput minus refinery losses) and reported products.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; EB, Sinopet Yearbook, various years, China Petrochemical Corporation Yearbook, various years.

Figure 2B.7. Petroleum Refinery Output, 1980-2006

Table 2B.12. Natural Gas Production by Source, 1949-2006

Year	Natural Gas Production (billion cubic meters)			Natural Gas from NG Fields as % of Total
	Natural Gas Fields ^[1]	Associated Gas ^[2]	Total	
1949	0.006	0.001	0.007	86%
1950	0.006	0.001	0.007	86%
1951	0.002	0.001	0.003	67%
1952	0.006	0.002	0.008	75%
1953	0.008	0.003	0.011	73%
1954	0.011	0.004	0.015	73%
1955	0.012	0.005	0.017	71%
1956	0.021	0.005	0.026	81%
1957	0.063	0.007	0.070	90%
1958	0.085	0.025	0.110	77%
1959	0.252	0.038	0.290	87%
1960	1.015	0.025	1.040	98%
1961	1.438	0.032	1.470	98%
1962	1.152	0.058	1.210	95%
1963	0.944	0.076	1.020	93%
1964	0.913	0.147	1.060	86%
1965	0.898	0.202	1.100	82%
1966	1.034	0.306	1.340	77%
1967	1.159	0.301	1.460	79%
1968	1.055	0.345	1.400	75%
1969	1.396	0.564	1.960	71%
1970	2.028	0.842	2.870	71%
1971	2.594	1.146	3.740	69%
1972	2.977	1.863	4.840	62%
1973	3.446	2.534	5.980	58%
1974	3.975	3.555	7.530	53%
1975	4.767	4.083	8.850	54%
1976	5.558	4.542	10.100	55%
1977	6.746	5.374	12.120	56%
1978	7.770	5.960	13.730	57%
1979	7.980	6.530	14.510	55%
1980	7.050	7.220	14.270	49%
1981	6.370	6.370	12.740	50%
1982	5.250	6.680	11.930	44%
1983	5.380	6.830	12.210	44%
1984	5.480	6.950	12.430	44%
1985	5.640	7.290	12.930	44%
1986	5.890	7.870	13.760	43%
1987	5.904	7.990	13.894	42%
1988	6.097	8.167	14.264	43%
1989	7.930	7.119	15.049	53%
1990	6.655	8.643	15.298	44%
1991	6.480	9.593	16.073	40%
1992			15.788	
1993			16.765	
1994	7.067	10.493	17.559	42%
1995	10.081	7.866	17.947	56%
1996	12.149	7.965	20.114	60%
1997	14.870	7.833	22.703	65%
1998			23.279	
1999			25.198	
2000			27.200	
2001			30.329	
2002			32.661	
2003			35.015	
2004			41.460	
2005			49.320	
2006			58.550	

[1] Virtually all of this is from natural gas fields in Sichuan.

[2] Most other natural gas production comes from six large oil fields. In 1991 the Daqing, Shengli, Liaohe, Zhongyuan, Xinjiang, and Dagang oilfields produced 2.32, 1.31, 1.75, 1.20, 0.83, and 0.40 billion cubic meters respectively, a total of 7.81 billion cubic meters, or four fifths of associated gas production.

Source: SSB, China Energy Statistical Yearbook, various years; SSB, China Statistical Yearbook, various years; Zhongguo Nengyuan (Energy of China), 1995, no.2; China National Petroleum Corporation, various years; Interfax 2004.

Figure 2B.8. Natural Gas Production, 1949-2006

Table 2B.13. Electricity Generation and Consumption, 1980-2006 (TWh)

Year	Gross Generation	Power Sector Consumption ^[1]	Net Generation	Net Trade ^[4]	T & D Losses ^[2]	Apparent End Use ^[3]
1980	300.6	19.4	281.2	0.00	25.1	256.1
1981	309.3	19.8	289.5	0.30	26.0	263.8
1982	327.7	20.7	307.0	0.33	26.5	280.8
1983	351.4	21.8	329.6	0.43	28.1	301.9
1984	377.0	23.7	353.3	0.80	29.3	324.9
1985	410.7	26.4	384.3	1.07	31.4	354.0
1986	449.6	29.4	420.2	1.17	34.2	387.1
1987	497.3	33.1	464.2	1.25	39.4	426.1
1988	545.2	36.5	508.7	1.47	41.6	468.6
1989	584.8	39.8	545.0	1.72	43.7	503.0
1990	621.2	42.9	578.3	1.84	46.6	533.5
1991	677.5	47.0	630.5	2.85	51.4	581.9
1992	753.9	52.8	701.1	4.72	58.1	647.7
1993	839.5	58.2	781.3	4.39	66.5	719.1
1994	928.1	64.0	864.1	-2.04	59.6	802.4
1995	1,007.0	68.3	938.8	-5.39	74.5	858.9
1996	1,081.3	74.3	1,007.0	-3.59	77.0	926.5
1997	1,135.6	77.1	1,058.4	-7.11	79.8	971.5
1998	1,167.0	77.1	1,089.9	-7.15	79.1	1,003.6
1999	1,239.3	80.2	1,159.1	-8.78	86.2	1,064.2
2000	1,355.6	85.9	1,269.7	-8.33	93.7	1,167.7
2001	1,480.8	92.6	1,388.2	-8.39	103.4	1,276.5
2002	1,654.0	101.7	1,552.3	-7.40	116.9	1,428.0
2003	1,910.6	116.0	1,794.6	-7.36	126.1	1,661.2
2004	2,203.3	131.1	2,072.2	-6.08	142.1	1,924.1
2005	2,500.3	146.8	2,353.5	-6.18	170.7	2,176.7
2006	2,865.7	169.9	2,695.8	-6.88	185.9	2,503.0

[1] Power sector consumption refers to in-plant consumption (see Table 4B.6, Power Sector In-Plant Electricity Consumption).

[2] Transmission and distribution losses; includes only losses from grids that have >500 kW of installed generation capacity and does not include losses from end user grids (mainly industry). Inclusion of line loss from end user distribution lines would approximately double line loss figures (Joint Survey Group, MOE, 1991). A 1988 Ministry of Energy survey of line losses found losses from main transmission lines (=220 kV) to be 2-4%, 3-6% from urban networks (=110 kV), 7-10% from rural grids (=10 kV), and 3-6% from industrial end user grids. The approximate share of total line losses was found to be: main transmission lines, 24%, urban and rural grids, 26%, heavy industry user grids, 25%, light industry user grids, 8%, rural industry user grids, 5%, rural household and other distribution grids, 12%.

[3] Totals are slightly different than in Table 4A.25, Electricity End Use by Sector, due to different methods of calculation. Whereas the totals in Table 2-19 are derived by subtracting power sector use and transmission and distribution losses from gross generation, the totals in table 4B.25 are sums of reported sectoral end use.

[4] Negative values indicate net exports.

Source: NBS, China Energy Statistical Yearbook, various years; Ministry of Energy, Energy in China, various years; Joint Survey Group, MOE, 1991; NBS, China Statistical Yearbook, various years; NBS, Statistical Yearbook of China's Industrial Economy, various years.

Table 2B.14. Electricity Generation Capacity, 1949-2006

1. Capacity (GW)

Year	Hydro	Fossil	Nuclear	Wind	Total
1949	0.16	1.69			1.85
1950	0.17	1.70			1.87
1951	0.18	1.70			1.88
1952	0.19	1.77			1.96
1953	0.33	2.02			2.35
1954	0.41	2.19			2.60
1955	0.50	2.50			3.00
1956	0.90	2.93			3.83
1957	1.02	3.61			4.63
1958	1.22	5.07			6.29
1959	1.62	7.92			9.54
1960	1.94	9.98			11.92
1961	2.33	10.53			12.86
1962	2.38	10.66			13.04
1963	2.43	10.90			13.33
1964	2.68	11.38			14.06
1965	3.02	12.06			15.08
1966	3.64	13.38			17.02
1967	3.84	14.15			17.99
1968	4.39	14.77			19.16
1969	5.05	15.99			21.04
1970	6.23	17.54			23.77
1971	7.80	18.48			26.28
1972	8.70	20.80			29.50
1973	10.30	23.62			33.92
1974	11.82	26.29			38.11
1975	13.43	29.98			43.41
1976	14.65	32.50			47.15
1977	15.76	35.69			51.45
1978	17.28	39.84			57.12
1979	19.11	43.91			63.02
1980	20.32	45.55			65.87
1981	21.93	47.20			69.13
1982	22.96	49.40			72.36
1983	24.16	52.28			76.44
1984	25.60	54.52			80.12
1985	26.42	60.63			87.05
1986	27.54	66.28			93.82
1987	30.19	72.70			102.90
1988	32.70	82.80			115.50
1989	34.58	92.06			126.64
1990	36.05	101.84			137.89
1991	37.88	113.59			151.47
1992	40.68	125.85			166.53
1993	44.59	137.12	1.20	0.01	182.91
1994	49.06	148.74	2.10	0.03	199.90
1995	52.18	162.94	2.10	0.04	217.22
1996	55.58	178.86	2.10	0.06	236.54
1997	59.73	192.29	2.10	0.15	254.24
1998	65.06	209.88	2.10	0.22	277.29
1999	72.97	223.43	2.10	0.27	298.77
2000	79.35	237.54	2.10	0.34	319.32
2001	82.70	252.80	2.10	0.40	338.00
2002	86.07	265.55	4.47	0.47	356.57
2003	94.90	289.77	6.19	0.57	391.41
2004	105.24	329.48	6.84	0.76	442.39
2005	117.39	391.38	6.85	1.06	517.18
2006	130.29	483.82	6.85	2.07	623.70

Source: Ministry of Energy, Energy in China, various years; NBS, China Statistical Yearbook, various years; EB, China Electric Power Yearbook, various years; Ministry of Coal Industry, various years; 2001 data: *Zhongguo Dianli*, Feb. 2002; 2002 and 2003 data: Interfax, 17-30 Jan. 2004; wind data: Hydropower Planning General Institute, various years; China Electricity Power Yearbook 2004.

Table 2B.14. Electricity Generation Capacity, 1949-2006

2. Growth Over Previous Year

Year	Hydro	Fossil	Nuclear	Wind	Total
1949					
1950	6.3%	0.6%			1.1%
1951	5.9%	0.0%			0.5%
1952	5.6%	4.1%			4.3%
1953	73.7%	14.1%			19.9%
1954	24.2%	8.4%			10.6%
1955	22.0%	14.2%			15.4%
1956	80.0%	17.2%			27.7%
1957	13.3%	23.2%			20.9%
1958	19.6%	40.4%			35.9%
1959	32.8%	56.2%			51.7%
1960	19.8%	26.0%			24.9%
1961	20.1%	5.5%			7.9%
1962	2.1%	1.2%			1.4%
1963	2.1%	2.3%			2.2%
1964	10.3%	4.4%			5.5%
1965	12.7%	6.0%			7.3%
1966	20.5%	10.9%			12.9%
1967	5.5%	5.8%			5.7%
1968	14.3%	4.4%			6.5%
1969	15.0%	8.3%			9.8%
1970	23.4%	9.7%			13.0%
1971	25.2%	5.4%			10.6%
1972	11.5%	12.6%			12.3%
1973	18.4%	13.6%			15.0%
1974	14.8%	11.3%			12.4%
1975	13.6%	14.0%			13.9%
1976	9.1%	8.4%			8.6%
1977	7.6%	9.8%			9.1%
1978	9.6%	11.6%			11.0%
1979	10.6%	10.2%			10.3%
1980	6.3%	3.7%			4.5%
1981	7.9%	3.6%			4.9%
1982	4.7%	4.7%			4.7%
1983	5.2%	5.8%			5.6%
1984	6.0%	4.3%			4.8%
1985	3.2%	11.2%			8.6%
1986	4.2%	9.3%			7.8%
1987	9.6%	9.7%			9.7%
1988	8.3%	13.9%			12.2%
1989	5.8%	11.2%			9.6%
1990	4.2%	10.6%			8.9%
1991	5.1%	11.5%			9.9%
1992	7.4%	10.8%			9.9%
1993	9.6%	9.0%			9.8%
1994	10.0%	8.5%	75.0%	102.1%	9.3%
1995	6.4%	9.5%	0.0%	23.2%	8.7%
1996	6.5%	9.8%	0.0%	59.3%	8.9%
1997	7.5%	7.5%	0.0%	153.3%	7.5%
1998	8.9%	9.1%	0.0%	53.6%	9.1%
1999	12.2%	6.5%	0.0%	19.9%	7.7%
2000	8.7%	6.3%	0.0%	28.5%	6.9%
2001	4.2%	6.4%	0.0%	16.9%	5.8%
2002	4.1%	5.0%	112.9%	16.2%	5.5%
2003	10.3%	9.1%	38.4%	21.0%	9.8%
2004	10.9%	13.7%	10.5%	34.7%	13.0%
2005	11.5%	18.8%	0.1%	38.2%	16.9%
2006	11.0%	23.6%	0.0%	96.2%	20.6%

Source: Ministry of Energy, Energy in China, various years; NBS, China Statistical Yearbook, various years; EB, China Electric Power Yearbook, various years; Ministry of Coal Industry, various years; 2001 data: *Zhongguo Dianli*, Feb. 2002; 2002 and 2003 data: Interfax, 17-30 Jan. 2004; wind data: Hydropower Planning General Institute, various years.

Table 2B.14. Electricity Generation Capacity, 1949-2006

3. Shares of Total

Year	Hydro	Fossil	Nuclear	Wind
1949	8.6%	91.4%		
1950	9.1%	90.9%		
1951	9.6%	90.4%		
1952	9.7%	90.3%		
1953	14.0%	86.0%		
1954	15.8%	84.2%		
1955	16.7%	83.3%		
1956	23.5%	76.5%		
1957	22.0%	78.0%		
1958	19.4%	80.6%		
1959	17.0%	83.0%		
1960	16.3%	83.7%		
1961	18.1%	81.9%		
1962	18.3%	81.7%		
1963	18.2%	81.8%		
1964	19.1%	80.9%		
1965	20.0%	80.0%		
1966	21.4%	78.6%		
1967	21.3%	78.7%		
1968	22.9%	77.1%		
1969	24.0%	76.0%		
1970	26.2%	73.8%		
1971	29.7%	70.3%		
1972	29.5%	70.5%		
1973	30.4%	69.6%		
1974	31.0%	69.0%		
1975	30.9%	69.1%		
1976	31.1%	68.9%		
1977	30.6%	69.4%		
1978	30.3%	69.7%		
1979	30.3%	69.7%		
1980	30.8%	69.2%		
1981	31.7%	68.3%		
1982	31.7%	68.3%		
1983	31.6%	68.4%		
1984	32.0%	68.0%		
1985	30.4%	69.6%		
1986	29.4%	70.6%		
1987	29.3%	70.7%		
1988	28.3%	71.7%		
1989	27.3%	72.7%		
1990	26.1%	73.9%		
1991	25.0%	75.0%		
1992	24.4%	75.6%		
1993	24.4%	75.0%	0.7%	0.01%
1994	24.5%	74.4%	1.1%	0.01%
1995	24.0%	75.0%	1.0%	0.02%
1996	23.5%	75.6%	0.9%	0.02%
1997	23.5%	75.6%	0.8%	0.1%
1998	23.5%	75.7%	0.8%	0.1%
1999	24.4%	74.8%	0.7%	0.1%
2000	24.9%	74.4%	0.7%	0.1%
2001	24.5%	74.8%	0.6%	0.1%
2002	24.1%	74.5%	1.3%	0.1%
2003	24.2%	74.0%	1.6%	0.1%
2004	23.8%	74.5%	1.5%	0.2%
2005	22.7%	75.7%	1.3%	0.2%
2006	20.9%	77.6%	1.1%	0.3%

Source: Ministry of Energy, Energy in China, various years; NBS, China Statistical Yearbook, various years; EB, China Electric Power Yearbook, various years; Ministry of Coal Industry, various years; 2001 data: *Zhongguo Dianli*, Feb. 2002; 2002 and 2003 data: Interfax, 17-30 Jan. 2004; wind data: Hydropower Planning General Institute, various years.

Table 2B.15. Installed Thermal Generation Capacity

1. By Type of Turbine^[1] (GW)

Year	High Efficiency Units ^{[2][3]}	Efficiency Units ^{[2][3]}		Subtotal	Gas Turbine	Diesel	Total ^[4]	of Total: Cogeneration ^[5]
		Med. Temp./ Med. Press.	Low Temp./ Low Press.					
1974	12.97				0.19		23.23	3.33
1975	15.84				0.21		26.47	3.53
1976	17.89				0.21		28.72	3.57
1977	20.22				0.28		31.42	3.73
1978	23.83				0.28		35.36	3.99
1979	26.94	11.47		11.47	0.29		38.70	4.15
1980	28.48	11.45	0.27	11.72	0.30		40.50	4.43
1981	29.62	11.60	0.26	11.86	0.30		41.78	4.54
1982	31.41	11.74	0.26	12.00	0.30		43.71	4.68
1983	34.49	11.88	0.22	12.10	0.29		46.88	4.91
1984	36.75	11.92	0.22	12.14	0.27		49.16	5.14
1985	41.99	12.16	0.21	12.37	0.47		54.83	5.35
1986	46.41	12.65	0.21	12.86	0.52	0.21	60.00	5.92
1987	51.64	13.13	0.21	13.34	0.62	0.21	64.98	6.23
1988	59.41	13.38	0.23	13.61	0.91	0.28	73.02	7.59
1989	66.56	14.91	0.22	15.13	0.85	0.36	82.91	8.31
1990	73.79	15.78	0.22	16.00	1.25	0.53	88.41	9.99
1991	82.50	16.73	0.27	17.00	1.49	0.91	101.90	12.12
1992	93.03	17.91	0.28	18.19	1.76	1.37	114.34	13.40
1993	103.22	19.16	0.29	19.45	2.03	2.18	122.69	14.65

[1] Includes only thermal power generation units over 6 MW capacity.

[2] "High-efficiency" units are those which are designed to operate under high temperature and pressure.

[3] According to a 1988 source, large, domestically manufactured high-efficiency generating units consume 375-400 g of coal per kWh (43-46% gross generation efficiency), large imported units consume about 335 g/kWh (51% efficiency), while low-efficiency units can consume 550 g/kWh (31% efficiency) (Wang, 1988).

[4] Before 1985, total does not include diesel generators. Totals for 1974-1978 are greater than sums of categories for which there are figures. These figures differ from those in Table 2B.16 (Electricity Generation Capacity and Growth Rates), which include units with less than 6 MW capacity.

[5] In 1985 the total installed cogeneration capacity was 6.5 GW (including units with capacities under 6 MW) and in 1987 the total was 6.68 GW.

Source: SSB, Energy Statistical Yearbook of China, various years; Wang, 1988; Information Research Institute of Water Resources and Electric Power, Ministry of Energy, *et al.*, 1989; EB, China Electric Power Yearbook, 1993; Energy Research Institute.

Table 2B.15. Installed Thermal Generation Capacity

2. By Type Of Turbine and Size, ≥ 6 MW (GW)

Year	Total						of total: Imported Units		
		Hydro Turbines	Steam Turbines	Gas Turbines	Diesel	Nuclear/Other	Total	Hydro	Steam
1993	156.10	29.80	122.10	2.03	2.18	1.20	32.03	4.50	27.53
1994	177.24	33.04	131.27	2.48	3.56	2.10	40.88	5.42	34.56
1995	188.67	35.39	142.69	3.11	5.39	2.10	44.34	5.43	38.91
1996	208.37	37.27	160.54	2.69	5.77	2.10	50.99	5.97	45.03
1997	224.28	40.98	171.48	4.38	5.34	2.10	52.22	6.47	45.74
1998	243.74	45.22	186.51	4.61	5.31	2.10	60.17	8.73	49.64
1999	265.85	52.02	201.27	5.10	5.35	2.10	70.65	12.75	56.10
2000	282.88	57.47	212.78	5.12	5.42	2.10	77.74	14.44	61.49
2001	303.60	60.35	230.17	5.77	5.21	2.10	85.70	15.94	69.75
2002	325.71	64.58	244.47	6.49	5.70	4.47	93.18	16.25	76.93
2003	356.00	71.31	265.73	7.06	5.70	6.19	101.79	20.56	81.23

Source: EB, China Electric Power Yearbook, various years.

Table 2B.15. Installed Thermal Generation Capacity

3. 1993 installed thermal generation capacity ≥ 6 MW

								<i>of total: Imported Units</i>		
Size (GW)	Units	Total	Hydro Turbines	Steam Turbines	Gas Turbines	Diesel	Nuclear	Total	Hydro	Steam
all units	number	3,508.00	665.00	2,540.00	79.00	224.00		707.00	58.00	649.00
	GW	156.10	29.80	122.09	2.03	2.18		32.03	4.50	27.53
units ≥ 300 MW	number	104.00	17.00	87.00				33.00	5.00	28.00
	GW	34.57	5.19	29.39				11.66	1.50	10.16
600 MW units	number	6.00		6.00				2.00		2.00
	GW	3.60		3.60				1.20		1.20
350 MW units	number	14.00		14.00				14.00		14.00
	GW	4.90		4.90				4.90		4.90
320 MW units	number	8.00	4.00	4.00				4.00		4.00
	GW	2.56	1.28	1.28				1.28		1.28
300 MW units	number	66.00	11.00	55.00				8.00	5.00	3.00
	GW	19.80	3.30	16.50				2.40	1.50	0.90
units 200-300 MW	number	178.00	16.00	162.00				22.00	1.00	21.00
	GW	36.09	3.50	32.60				4.57	0.20	4.37
200 MW units	number	155.00	5.00	150.00				13.00	1.00	12.00
	GW	31.00	1.00	30.00				2.60	0.20	2.40
units 100-200 MW	number	281.00	63.00	217.00	1.00			33.00	5.00	28.00
	GW	31.83	7.72	23.99	0.12			3.74	0.75	2.99
125 MW units	number	109.00	23.00	86.00				3.00		3.00
	GW	13.63	2.88	10.75				0.38		0.38
100 MW units	number	14.00	24.00	120.00				18.00		18.00
	GW	14.40	2.40	12.00				1.80		1.80
units 50-100 MW	number	354.00	85.00	267.00	2.00			67.00	17.00	50.00
	GW	19.25	5.62	13.53	0.10			3.71	1.24	2.50
50 MW units	number	274.00	20.00	253.00	1.00			48.00		48.00
	GW	13.70	1.00	12.65	0.05			2.40		2.40
units 25-50 MW	number	525.00	91.00	394.00	37.00	3.00		131.00	18.00	113.00
	GW	14.88	3.46	10.12	1.22	0.08		3.74	0.62	3.12
25 MW units	number	390.00	5.00	372.00	11.00	2.00		85.00		85.00
	GW	9.75	0.13	9.30	0.28	0.05		2.13		2.13
units <0.25 MW	number	2,066.00	393.00	1,413.00	39.00	221.00		421.00	12.00	409.00
	GW	19.47	4.32	12.47	0.59	2.09		4.60	0.22	4.39
12 MW units	number	570.00	14.00	554.00	2.00			56.00		56.00
	GW	6.84	0.17	6.65	0.02			0.67		0.67
10 MW units	number	61.00	32.00	25.00		4.00		23.00		23.00
	GW	0.61	0.32	0.25		0.04		0.23		0.23
6 MW units	number	790.00	24.00	764.00	1.00	1.00		29.00		29.00
	GW	4,744.74	0.14	4.58	0.01	0.01		0.17		0.17

Source: EB, China Electric Power Yearbook, 1994

Table 2B.15. Installed Thermal Generation Capacity

4. 1998 installed thermal generation capacity ≥ 6MW

								<i>of total: Imported Units</i>		
	Units	Total	Hydro Turbines	Steam Turbines	Gas Turbines	Diesel	Nuclear ^[1]	Total	Hydro	Steam
all units	number	4,915.00	893.00	3,413.00	115.00	491.00	3.00	1,019.00	90.00	927.00
	GW	243.74	45.22	186.51	4.61	5.31	2.10	60.17	8.73	49.64
units ≥ 300 MW	number	240.00	31.00	206.00			3.00	78.00	11.00	65.00
	GW	81.54	10.20	69.24			2.10	31.26	3.81	20.43
600 MW units	number	12.00		12.00				8.00		8.00
	GW	7.20		7.20				4.80		4.80
350 MW units	number	22.00		22.00				22.00		22.00
	GW	7.70		7.70				7.70		7.70
320 MW units	number	8.00	4.00	4.00				4.00		4.00
	GW	2.56	1.28	1.28				1.28		1.28
300 MW units	number	163.00	16.00	146.00			1.00	19.00	7.00	12.00
	GW	48.90	4.80	43.80			0.30	5.70	2.10	3.60
units 200-300 MW	number	228.00	36.00	192.00				31.00	7.00	24.00
	GW	49.50	7.89	38.61				6.44	1.44	5.00
200 MW units	number	194.00	15.00	179.00				18.00	6.00	12.00
	GW	38.80	3.00	35.80				3.60	1.20	2.40
units 100-200 MW	number	378.00	79.00	284.00	13.00	2.00		54.00	6.00	48.00
	GW	43.81	10.12	1.52	0.22	6.25		0.90	5.35	
125 MW units	number	152.00		129.00				4.00		4.00
	GW	19.00	2.87	16.13				0.50		0.50
100 MW units	number	173.00	25.00	140.00	8.00			28.00		28.00
	GW	17.30	2.50	14.00	0.80			2.80		2.80
units 50-100 MW	number	464.00	102.00	354.00	8.00			78.00	18.00	60.00
	GW	25.49	6.78	18.12	0.59			4.60	1.25	3.35
50 MW units	number	342.00	21.00	318.00	3.00			49.00	1.00	48.00
	GW	17.10	1.05	15.90	0.15			2.45	0.05	2.40
units 25-50 MW	number	638.00	116.00	461.00	59.00	2.00		162.00	28.00	134.00
	GW	18.37	4.28	12.02	2.02	0.05		4.95	0.96	3.99
25 MW units	number	438.00	10.00	414.00	12.00	2.00		80.00		80.00
	GW	10.95	0.25	10.35	0.30	0.05		2.00		2.00
units 12-25 MW	numbers	1,082.00	239.00	778.00	16.00	49.00		141.00	19.00	122.00
	GW	14.28	3.69	9.58	0.29	0.71		2.05	0.35	1.70
12 MW units	numbers	723.00	17.00	703.00	3.00			50.00		50.00
	GW	8.68	0.20	8.44	0.04			0.60		0.60
units 6-12 MW	numbers	1,885.00	290.00	1,138.00	19.00	438.00		475.00	1.00	474.00
	GW	13.76	2.26	7.00	0.18	4.32		4.61	0.01	4.60
10 MW units	numbers	67.00	38.00	15.00	1.00	13.00		18.00		18.00
	GW	0.67	0.38	0.15	0.01	0.13		0.18		0.18
6 MW units	numbers	1,122.00	34.00	1,085.00	1.00	2.00		21.00		21.00
	GW	6.73	0.20	6.51	0.01	0.01		0.13		0.13

[1] The Daya Bay nuclear power plant in Guangdong has two 900 MW PWR units.

Source: EB, China Electric Power Yearbook, various years.

Table 2B.15. Installed Thermal Generation Capacity

5. 2000 installed thermal generation capacity ≥ 6MW

								<i>of total: Imported Units</i>		
	Units	Total	Hydro Turbines	Steam Turbines	Gas Turbines	Diesel	Nuclear ^[1]	Total	Hydro	Steam
all units	number	5,235.00	1,062.00	3,546.00	127.00	497.00	3.00	1,051.00	125.00	924.00
	GW	282.88	57.47	212.78	5.12	5.42	2.10	77.74	14.44	61.49
<i>units ≥ 300 MW</i>	number	313.00	48.00	262.00			3.00	111.00	22.00	87.00
	GW	109.98	17.00	90.88			2.10	46.97	8.71	36.46
600 MW units	number	22.00	2.00	20.00				16.00	2.00	14.00
	GW	13.20	1.20	1.20				9.60	1.20	8.40
350 MW units	number	33.00		33.00				33.00		33.00
	GW	11.55		11.50				11.50		11.50
320 MW units	number	8.00	4.00	4.00				4.00		4.00
	GW	2.56	1.28	1.28				1.28		1.28
300 MW units	number	205.00	26.00	178.00			1.00	25.00	12.00	13.00
	GW	61.50	7.80	53.40			0.30	7.50	3.60	3.90
<i>units 200-300 MW</i>	number	232.00	39.00	193.00				31.00	7.00	24.00
	GW	47.42	8.59	38.83				6.44	1.44	5.00
200 MW units	number	194.00	15.00	179.00				18.00	6.00	12.00
	GW	38.80	3.00	35.80				3.60	1.20	2.40
<i>units 100-200 MW</i>	number	376.00	90.00	321.00	15.00			66.00	7.00	59.00
	GW	43.59	11.76	36.64	1.72			7.85	1.01	6.84
125 MW units	number	170.00	24.00	146.00				4.00		4.00
	GW	21.25	3.00	18.25				0.50		0.50
100 MW units	number	182.00	26.00	146.00	10.00			30.00		30.00
	GW	18.20	2.60	14.60	1.00			3.00		3.00
<i>units 50-100 MW</i>	number	475.00	110.00	355.00	10.00			78.00	18.00	60.00
	GW	26.30	7.31	18.30	0.69			4.68	1.25	3.43
50 MW units	number	335.00	23.00	307.00	5.00			45.00	1.00	44.00
	GW	16.75	115.00	15.35	0.25			2.25	0.05	2.20
<i>units 25-50 MW</i>	number	648.00	164.00	418.00	64.00	2.00		174.00	51.00	123.00
	GW	18.87	5.80	10.80	2.21	0.05		5.41	1.66	3.75
36 MW units	number	44.00	32.00	1.00	11.00			19.00	15.00	4.00
	GW	1.58	1.15	0.04	0.40			0.68	0.54	0.14
25 MW units	number	410.00	16.00	380.00	12.00	2.00		68.00		68.00
	GW	10.25	0.40	9.50	0.30	0.05		1.70		1.70
<i>units 12-25 MW</i>	numbers	1,169.00	282.00	817.00	17.00	53.00		125.00	19.00	106.00
	GW	15.62	4.43	10.11	0.29	0.80		1.86	0.36	1.51
15 MW units	numbers	136.00	79.00	56.00	1.00			2.00	1.00	2.00
	GW	2.04	1.19	0.84	0.02			0.05	0.02	0.03
12 MW units	numbers	747.00	13.00	731.00	3.00			36.00		36.00
	GW	8.96	0.16	8.77	0.04			0.43		0.43
<i>units 6-12 MW</i>	numbers	1,887.00	329.00	1,180.00	21.00	440.00		466.00	1.00	465.00
	GW	13.98	2.58	7.23	0.20	4.54		4.53	0.01	4.52
10 MW units	numbers	72.00	49.00	9.00	1.00	13.00		13.00		13.00
	GW	0.72	0.49	0.09	0.01	0.13		0.13		0.13
6 MW units	numbers	11.74	41.00	11.30	1.00	2.00		21.00		21.00
	GW	7.04	0.25	6.78	0.00	0.01		0.13		0.13

[1] The Daya Bay nuclear power plant in Guangdong has two 900 MW PWR units.

Source: EB, China Electric Power Yearbook, 2001

Table 2B.15. Installed Thermal Generation Capacity

6. 2003 installed thermal generation capacity ≥ 6MW

								<i>of total: Imported Units</i>		
	Units	Total	Hydro Turbines	Steam Turbines	Gas Turbines	Diesel	Other	Total	Hydro	Steam
all units	number	6,459.00	1,492.00	4,265.00	173.00	521.00	8.00	1,147.00	161.00	986.00
	GW	356.00	71.31	265.73	7.06	5.70	6.19	101.79	20.56	81.23
<i>units ≥ 300 MW</i>	number	404.00	57.00	339.00		521.00	8.00	158.00	33.00	125.00
	GW	147.63	21.50	119.94		5.70	6.19	69.00	13.81	55.19
<i>units 200-300 MW</i>	number	264.00	47.00	217.00				31.00	4.00	27.00
	GW	54.69	10.41	44.28				6.43	0.80	5.63
<i>units 100-200 MW</i>	number	510.00	100.00	388.00	20.00	2.00		70.00	11.00	59.00
	GW	61.62	13.07	45.90	2.38	0.28		8.55	1.54	7.01
<i>units 50-100 MW</i>	number	536.00	122.00	397.00	17.00			86.00	31.00	55.00
	GW	29.91	8.05	20.71	1.15			5.22	2.03	3.18
<i>units 25-50 MW</i>	number	792.00	211.00	499.00	80.00	2.00		180.00	57.00	123.00
	GW	23.26	7.46	12.89	2.87	0.05		5.77	1.92	3.85
<i>units 12-25 MW</i>	numbers	1,554.00	401.00	1,074.00	22.00	57.00		136.00	22.00	114.00
	GW	21.35	6.40	13.74	0.36	0.85		2.07	0.42	1.65
<i>units 6-12 MW</i>	numbers	2,399.00	554.00	1,351.00	34.00	460.00		486.00	3.00	483.00
	GW	17.53	4.43	8.27	0.30	4.53		4.75	0.03	4.71

Source: EB, China Electric Power Yearbook, 2004

Table 2B.15. Installed Thermal Generation Capacity

7. 2004 installed thermal generation capacity ≥ 100MW

		Total	<i>Domestic</i>		<i>Imported</i>	
Units			Coal	Diesel	Coal	Diesel
all units	number					
<i>units 500-800 MW</i>	number	47	12		35	
<i>units 300-399 MW</i>	number	286	217	1	68	
<i>units 200-299 MW</i>	number	210	182	1	27	
<i>units 100-199 MW</i>	number	345	312	8	25	
<i>units 100-800 MW</i>	number	888	723	10	155	
<i>Gas Turbines</i>	number	11				

Source: EB, China Electric Power Yearbook, 2005

Table 2B.16. Installed Generation Capacity by Region and Type of Turbine

1. 1998

Planning Region	Province	Capacity (GW)			Nuclear
		Total	Hydro Turbines	Steam Turbines	
North		40.91	2.26	38.61	
	Beijing	4.08	1.07	3.01	
	Tianjin	4.77	0.01	4.77	
	Hebei	13.29	0.70	12.59	
	Shanxi	10.97	0.44	10.53	
	Inner Mongolia	7.80	0.05	7.71	
Northeast		31.60	5.48	26.10	
	Liaoning	13.80	1.22	12.56	
	Jilin	7.90	3.47	4.43	
	Heilongjiang	9.91	0.79	9.12	
East		79.30	10.97	68.00	0.30
	Shanghai	9.53		9.53	
	Jiangsu	16.27	0.03	16.24	
	Zhejiang	14.34	3.83	10.17	0.30
	Anhui	7.44	0.58	6.86	
	Fujian	8.10	4.76	3.34	
	Jiangxi	5.73	1.71	4.02	
	Shandong	17.90	0.07	17.83	
South-Central		73.59	22.06	49.68	1.80
	Henan	13.78	0.63	13.15	
	Hubei	13.17	6.53	6.64	
	Hunan	9.92	5.10	4.80	
	Guangdong	29.07	5.51	21.72	1.80
	Guangxi	6.10	3.75	2.35	
	Hainan	1.54	0.53	0.99	
Southwest		28.94	15.30	13.61	
	Chongqing	3.91	0.84	3.07	
	Sichuan	12.84	7.71	5.14	
	Guizhou	5.28	2.24	3.05	
	Yunnan	6.61	4.28	2.33	
	Xizang	0.30	0.25	0.06	
Northwest		21.77	7.81	13.89	
	Shaanxi	6.35	1.25	5.10	
	Gansu	5.91	2.81	3.10	
	Qinghai	3.24	2.66	0.58	
	Ningxia	2.30	0.31	2.00	
	Xinjiang	3.96	0.79	3.10	
National Total		277.29	65.07	209.88	2.10

Source: EB, Electric Power Yearbook, 1999.

Table 2B.16. Installed Generation Capacity by Region and Type of Turbine

2. 2000

Planning Region	Province	Capacity (GW)			Nuclear
		Total	Hydro Turbines	Steam Turbines	
North		47.03	3.18	43.79	
	Beijing	4.45	1.06	3.39	
	Tianjin	5.04	0.01	5.03	
	Hebei	15.83	0.73	15.09	
	Shanxi	12.75	0.98	11.77	
	Inner Mongolia	8.96	0.41	8.50	
Northeast		34.58	5.60	28.93	
	Liaoning	15.23	1.25	13.94	
	Jilin	8.46	3.54	4.92	
	Heilongjiang	10.88	0.81	10.07	
East		93.43	13.26	79.82	0.30
	Shanghai	10.60		10.60	
	Jiangsu	19.25	0.03	19.22	
	Zhejiang	18.08	5.42	12.33	0.30
	Anhui	8.72	0.55	8.18	
	Fujian	10.44	5.32	5.10	
	Jiangxi	6.32	1.85	4.47	
	Shandong	20.01	0.08	19.93	
South-Central		81.87	26.17	53.82	1.80
	Henan	15.32	1.53	13.79	
	Hubei	15.11	7.07	8.04	
	Hunan	10.34	5.86	4.48	
	Guangdong	31.90	7.02	23.01	1.80
	Guangxi	7.42	4.16	3.26	
	Hainan	1.79	0.54	1.25	
Southwest		35.26	19.94	15.29	
	Chongqing	4.32	1.33	3.00	
	Sichuan	17.10	11.01	6.09	
	Guizhou	6.06	2.36	3.71	
	Yunnan	7.41	4.95	2.47	
	Xizang	0.36	0.29	0.03	
Northwest		24.65	8.69	15.88	
	Shaanxi	7.38	1.45	5.92	
	Gansu	6.55	2.95	3.60	
	Qinghai	3.95	3.11	0.84	
	Ningxia	2.31	0.31	2.00	
	Xinjiang	4.46	0.87	3.52	
National Total		319.32	79.35	237.54	2.10

Source: EB, Electric Power Yearbook, 2001.

Table 2B.16. Installed Generation Capacity by Region and Type of Turbine

3. 2003

Planning Region	Province	Capacity (GW)			Nuclear
		Total	Hydro Turbines	Steam Turbines	
North		56.82	3.22	53.51	
	Beijing	4.41	1.06	3.35	
	Tianjin	6.01	0.01	6.01	
	Hebei	18.48	0.76	17.70	
	Shanxi	15.83	0.80	15.04	
	Inner Mongolia	12.09	0.59	11.42	
Northeast		37.65	5.82	31.66	
	Liaoning	16.35	1.40	14.82	
	Jilin	9.41	3.59	5.79	
	Heilongjiang	11.89	0.83	11.05	
East		119.36	15.96	100.94	2.41
	Shanghai	11.09		11.09	
	Jiangsu	22.38	0.14	22.25	
	Zhejiang	23.82	6.05	15.32	2.41
	Anhui	9.93	0.65	9.28	
	Fujian	13.87	6.76	7.09	
	Jiangxi	7.72	2.31	5.41	
	Shandong	30.55	0.05	30.49	
South-Central		101.51	33.76	63.88	3.78
	Henan	20.07	2.44	17.64	
	Hubei	19.71	11.54	8.17	
	Hunan	13.05	6.60	6.45	
	Guangdong	39.20	8.11	27.23	3.78
	Guangxi	7.72	4.53	3.19	
	Hainan	1.76	0.55	1.20	
Southwest		43.56	24.24	19.29	
	Chongqing	4.46	1.33	3.13	
	Sichuan	18.45	12.34	6.10	
	Guizhou	10.18	3.71	6.47	
	Yunnan	10.10	6.54	3.56	
	Xizang	0.38	0.31	0.03	
Northwest		30.00	9.38	20.49	
	Shaanxi	8.79	1.46	7.33	
	Gansu	8.05	3.28	4.75	
	Qinghai	4.25	3.34	0.91	
	Ningxia	3.42	0.31	3.10	
	Xinjiang	5.50	0.99	4.41	
National Total		391.41	94.90	289.77	6.19

Source: EB, Electric Power Yearbook, 2004.

Table 2B.16. Installed Generation Capacity by Region and Type of Turbine

4. 2004

Planning Region	Province	Capacity (GW)			Nuclear
		Total	Hydro Turbines	Steam Turbines	
North		64.06	3.20	60.73	
	Beijing	4.51	1.06	3.46	
	Tianjin	6.01	0.01	6.01	
	Hebei	20.73	0.78	19.93	
	Shanxi	18.48	0.79	17.69	
	Inner Mongolia	14.32	0.57	13.64	
Northeast		38.25	5.85	32.18	
	Liaoning	16.51	1.40	14.96	
	Jilin	9.60	3.60	5.96	
	Heilongjiang	12.14	0.84	11.26	
East		137.94	17.02	117.78	3.06
	Shanghai	12.02	0.00	12.01	
	Jiangsu	28.43	0.13	28.29	
	Zhejiang	30.95	6.42	21.44	3.06
	Anhui	10.06	0.69	9.36	
	Fujian	15.51	7.18	8.32	
	Jiangxi	8.05	2.55	5.50	
	Shandong	32.92	0.05	32.86	
South-Central		117.29	39.19	74.23	3.78
	Henan	24.23	2.44	21.79	
	Hubei	24.62	15.12	9.51	
	Hunan	14.23	7.45	6.78	
	Guangdong	42.62	8.58	30.17	3.78
	Guangxi	9.42	5.04	4.38	
	Hainan	2.17	0.56	1.60	
Southwest		51.50	29.15	22.31	
	Chongqing	4.68	1.41	3.27	
	Sichuan	20.28	13.38	6.90	
	Guizhou	14.70	6.90	7.80	
	Yunnan	11.37	7.06	4.31	
	Xizang	0.47	0.40	0.03	
Northwest		33.36	10.84	22.25	
	Shaanxi	9.52	1.88	7.64	
	Gansu	8.68	3.57	4.98	
	Qinghai	4.94	4.05	0.89	
	Ningxia	4.19	0.37	3.78	
	Xinjiang	6.03	0.97	4.96	
National Total		442.39	105.24	329.48	6.84

Source: EB, Electric Power Yearbook, 2005.

Table 2B.16. Installed Generation Capacity by Region and Type of Turbine

5. 2005

Planning Region	Province	Capacity (GW)			Nuclear
		Total	Hydro Turbines	Steam Turbines	
North		77.28	3.19	73.81	
	Beijing	4.91	1.05	3.83	
	Tianjin	6.18	0.01	6.17	
	Hebei	23.17	0.78	22.33	
	Shanxi	23.07	0.78	22.29	
	Inner Mongolia	19.95	0.57	19.18	
Northeast		40.18	5.97	33.94	
	Liaoning	17.54	1.40	16.00	
	Jilin	10.17	3.72	6.36	
	Heilongjiang	12.47	0.85	11.58	
East		170.04	19.58	147.39	3.07
	Shanghai	13.37	0.00	13.11	
	Jiangsu	42.71	0.14	42.51	
	Zhejiang	37.74	6.95	27.67	3.07
	Anhui	12.25	0.74	11.51	
	Fujian	17.62	8.22	9.35	
	Jiangxi	8.93	3.02	5.91	
	Shandong	37.43	0.50	37.34	
South-Central		132.50	45.33	84.67	3.78
	Henan	28.81	2.54	26.27	
	Hubei	27.42	17.89	9.53	
	Hunan	15.06	7.85	7.21	
	Guangdong	48.08	9.04	35.19	3.78
	Guangxi	11.02	7.44	4.93	
	Hainan	2.11	0.57	1.53	
Southwest		58.23	34.98	25.68	
	Chongqing	5.68	1.91	3.74	
	Sichuan	22.46	17.42	7.52	
	Guizhou	16.87	7.23	9.64	
	Yunnan	12.75	8.00	4.75	
	Xizang	0.48	0.42	0.03	
Northwest		38.96	12.60	25.28	
	Shaanxi	11.66	1.98	8.99	
	Gansu	9.86	4.01	5.71	
	Qinghai	5.71	4.82	0.89	
	Ningxia	5.18	0.43	4.64	
	Xinjiang	6.54	1.36	5.05	
National Total		517.18	117.38	391.44	6.85

Source: EB, Electric Power Yearbook, 2006 and 2007.

Table 2B.16. Installed Generation Capacity by Region and Type of Turbine

6. 2006

Planning Region	Province	Capacity (GW)			Nuclear
		Total	Hydro Turbines	Steam Turbines	
North		96.42	3.45	92.14	
	Beijing	5.06	1.05	3.98	
	Tianjin	6.54	0.01	6.51	
	Hebei	27.09	0.79	26.09	
	Shanxi	27.45	0.79	26.66	
	Inner Mongolia	30.28	0.82	28.90	
Northeast		42.89	6.13	36.22	
	Liaoning	18.34	1.40	16.72	
	Jilin	11.13	3.87	7.04	
	Heilongjiang	13.43	0.85	12.46	
East		210.82	22.30	184.79	3.07
	Shanghai	14.78	0.00	14.53	
	Jiangsu	52.07	0.14	51.78	
	Zhejiang	46.87	8.37	35.39	3.07
	Anhui	15.14	1.00	14.13	
	Fujian	22.05	8.96	13.00	
	Jiangxi	9.86	3.29	6.57	
	Shandong	50.06	0.55	49.40	
South-Central		154.02	47.06	102.97	3.78
	Henan	35.16	2.55	32.60	
	Hubei	29.94	18.32	11.62	
	Hunan	19.38	8.65	10.72	
	Guangdong	53.90	9.32	40.62	3.78
	Guangxi	13.06	7.62	5.43	
	Hainan	2.58	0.59	1.98	
Southwest		75.41	37.28	38.08	
	Chongqing	7.60	1.98	5.59	
	Sichuan	27.29	17.73	9.56	
	Guizhou	21.88	7.53	14.35	
	Yunnan	18.26	9.70	8.56	
	Xizang	0.38	0.34	0.01	
Northwest		44.15	14.07	29.63	
	Shaanxi	11.93	2.17	9.72	
	Gansu	10.94	4.29	6.45	
	Qinghai	6.94	5.42	1.52	
	Ningxia	6.44	0.43	6.00	
	Xinjiang	7.89	1.77	5.94	
National Total		623.70	130.29	483.82	6.85

Source: EB, Electric Power Yearbook, 2007.

Figure 2B.9. Electricity Generation Capacity, 1949-2006

Table 2B.17. National Average Capacity Factors for Electric Power Generation^[1], 1978-2006

Year	Total			Hydro			Fossil			Nuclear		
	Installed Capacity (GW)	Gross Generation (TWh)	Capacity Factor	Installed Capacity (GW)	Gross Generation (TWh)	Capacity Factor	Installed Capacity (GW)	Gross Generation (TWh)	Capacity Factor	Installed Capacity (GW)	Gross Generation (TWh)	Capacity Factor
1978	57.12	256.6	0.51	17.28	44.6	0.29	39.84	212.0	0.61			
1979	63.01	282.0	0.51	19.10	50.1	0.30	43.91	231.9	0.60			
1980	65.87	300.6	0.52	20.32	58.2	0.33	45.55	242.4	0.61			
1981	69.00	309.3	0.51	21.93	65.5	0.34	47.07	243.8	0.59			
1982	72.36	327.7	0.52	22.96	74.4	0.37	49.40	253.3	0.58			
1983	76.44	351.4	0.52	24.16	86.4	0.41	52.28	265.0	0.58			
1984	80.12	377.0	0.54	25.60	86.8	0.39	54.52	290.2	0.61			
1985	87.05	410.7	0.54	26.41	92.4	0.40	60.64	318.3	0.60			
1986	93.82	449.6	0.55	27.54	94.5	0.39	66.28	355.1	0.61			
1987	102.90	497.3	0.55	30.19	100.2	0.38	72.71	397.1	0.62			
1988	115.50	545.1	0.54	32.70	109.2	0.38	82.80	435.9	0.60			
1989	126.64	584.7	0.53	34.58	118.4	0.39	92.11	466.3	0.58			
1989	126.64	584.8	0.53	34.58	118.3	0.39	92.06	466.5	0.58			
1990	137.89	621.2	0.51	36.05	126.7	0.40	101.84	494.5	0.55			
1991	151.47	677.5	0.51	37.88	124.7	0.38	113.59	552.8	0.56			
1992	166.53	753.9	0.52	40.68	130.7	0.37	125.85	623.2	0.56			
1993	182.91	839.5	0.52	44.59	151.8	0.39	137.12	666.8	0.55	1.20	1.6	0.15
1994	199.90	928.1	0.53	49.06	167.4	0.39	148.74	747.0	0.57	2.10	13.9	0.76
1995	217.22	1,007.0	0.53	52.18	190.6	0.42	157.69	811.9	0.59	2.10	12.8	0.70
1996	236.54	1,081.3	0.52	55.58	188.0	0.39	178.86	877.8	0.56	2.10	14.3	0.78
1997	254.24	1,134.0	0.51	59.73	194.6	0.37	192.41	925.2	0.55	2.10	14.4	0.78
1998	277.29	1,157.7	0.48	65.07	204.3	0.36	209.88	938.8	0.51	2.10	14.1	0.77
1999	298.77	1,239.3	0.47	72.97	203.8	0.32	223.43	1,020.5	0.52	2.10	15.0	0.81
2000	319.32	1,355.6	0.48	79.35	222.4	0.32	237.54	1,114.2	0.54	2.10	16.7	0.91
2001	338.00	1,480.8	0.50	82.70	277.4	0.38	252.80	1,183.4	0.53	2.10	17.5	0.95
2002	356.57	1,654.0	0.53	86.07	288.0	0.38	265.55	1,338.1	0.57	4.47	25.1	0.64
2003	391.41	1,910.6	0.56	94.90	283.7	0.34	289.77	1,580.4	0.62	6.19	43.3	0.80
2004	442.39	2,203.3	0.57	105.24	353.5	0.38	329.48	1,795.6	0.62	6.84	50.5	0.84
2005	517.18	2,500.3	0.55	117.39	397.0	0.39	391.38	2,047.3	0.60	6.85	53.1	0.88
2006	623.70	2,865.7	0.52	130.29	435.8	0.38	483.82	2,369.6	0.56	6.85	54.8	0.91

[1] These figures represent an average for all generation capacity. Capacity factors (CF) for different units may vary substantially from these values.

Source: SSB, China Energy Statistical Yearbook, various years; Energy Research Institute.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

1. 1991

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor	Load Factor (%)
North China	18,835.8	5,532	0.63	90.2%
Northeast China	23,012.5	4,763	0.54	85.5%
East China	23,757.3	5,243	0.60	90.1%
Central China	22,003.5	4,905	0.56	90.8%
Northwest China	9,405.6	5,041	0.58	83.4%
Fujian Province	3,238.0	4,253	0.49	82.6%
Shandong Province	9,064.0	5,879	0.67	87.0%
Guangdong Province	8,936.9	5,723	0.65	85.9%
Guangxi Province	1,746.5	4,513	0.52	84.4%
Sichuan Province	7,005.9	4,874	0.56	85.0%
Guizhou Province	2,198.3	4,969	0.57	86.6%
Yunnan Province	2,935.5	4,234	0.48	81.8%
Total/Average	132,139.8	5,126	0.59	
National Total	151,473.0			

Source: EB, China Electric Power Yearbook, 1992.

2. 1993

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor
North China	25,728.1	5,023	0.57
Northeast China	25,755.9	4,673	0.53
East China	28,698.0	5,007	0.57
Central China	25,616.9	4,770	0.54
Northwest China	11,381.6	5,010	0.57
Fujian Province	3,788.2	4,870	0.56
Shandong Province	10,690.0	5,685	0.65
Guangdong Province	14,004.5	3,797	0.43
Hainan Province	897.2	2,752	0.31
Sichuan Province	8,460.1	4,595	0.52
Guizhou Province	2,595.9	4,841	0.55
Yunnan Province	3,633.5	4,022	0.46
Urumqi	1,057.3	4,871	0.56
Total/Average	190,536.4	4,593	0.52
National Total	182,910.0		

Source: EB, China Electric Power Yearbook, 1994.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

3. 1994

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor
North China	27,146.4	5,160	0.59
Northeast China	26,534.4	4,693	0.54
East China	31,673.2	5,189	0.59
Central China	27,602.2	4,784	0.55
Northwest China	11,483.0	5,261	0.60
Fujian Province	4,960.3	4,356	0.50
Shandong Province	11,518.2	5,833	0.67
Guangdong Province	19,009.7	3,888	0.44
Guangxi Province	4,230.7	3,984	0.46
Hainan Province	1,057.3	2,714	0.31
Sichuan Province	10,095.8	4,688	0.54
Guizhou Province	3,253.8	4,673	0.53
Yunnan Province	4,082.9	4,149	0.47
Urumqi	1,473.1	4,634	0.53
Total/Average	184,121.0	4,572	0.52
National Total	199,900.0		

Source: EB, China Electric Power Yearbook, 1995.

4. 1995

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor
North China	29,943.5	5,115	0.58
Northeast China	27,197.5	4,813	0.55
East China	37,029.2	4,880	0.56
Central China	30,399.2	4,797	0.55
Northwest China	12,563.6	5,021	0.57
Fujian Province	6,100.2	4,116	0.47
Shandong Province	12,291.9	5,977	0.68
Guangdong Province	22,717.5	3,614	0.41
Guangxi Province	5,194.2	3,966	0.45
Hainan Province	1,518.5	2,099	0.24
Sichuan Province	10,677.4	4,849	0.55
Guizhou Province	3,659.8	4,977	0.57
Yunnan Province	4,439.2	4,219	0.48
Urumqi	1,647.5	4,971	0.57
Total/Average	205,379.2	4,530	0.52
National Total	217,220.0		

Source: EB, China Electric Power Yearbook, 1996.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

5. 1996

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor
North China	32,930.4	5,025	0.57
Northeast China	29,495.3	4,689	0.54
East China	38,220.7	5,073	0.58
Central China	33,739.4	4,533	0.52
Northwest China	13,701.8	4,846	0.55
Fujian Province	7,007.2	3,883	0.44
Shandong Province	13,606.1	5,810	0.66
Guangdong Province	23,925.2	3,413	0.39
Guangxi Province	5,430.4	3,980	0.45
Hainan Province	1,560.5	2,090	0.24
Sichuan Province	11,905.0	4,650	0.53
Guizhou Province	4,403.1	4,723	0.54
Yunnan Province	4,660.4	4,546	0.52
Urumqi	1,773.0	5,192	0.59
Total/Average	222,358.5	4,461	0.51
National Total	236,540.0		

Source: EB, China Electric Power Yearbook, 1997.

6. 1997

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor
North China	34,519.4	5,110	0.58
Northeast China	30,962.2	4,626	0.53
East China	41,542.9	4,874	0.56
Central China	36,232.7	4,378	0.50
Northwest China	15,772.7	4,440	0.51
Fujian Province	7,290.3	3,983	0.45
Shandong Province	16,486.6	5,089	0.58
Guangdong Province	28,126.3	3,488	0.40
Guangxi Province	5,610.7	4,049	0.46
Hainan Province	1,560.7	2,200	0.25
Chongqing	2,268.9	5,076	0.58
Sichuan Province	10,381.2	4,493	0.51
Guizhou Province	4,344.0	5,155	0.59
Yunnan Province	4,885.6	4,319	0.49
Urumqi	1,905.3	5,335	0.61
Lhasa	159.0	1,654	0.19
Total/Average	242,048.5	4,876	0.56
National Total	254,240.0		

Source: EB, China Electric Power Yearbook, 1998.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

7. 1998

Network	Installed Capacity (MW)	Average Utilization (hours)	Implied Average Capacity Factor
North China	37,186.6	4,812	0.55
Northeast China	34,312.1	4,114	0.47
East China	46,121.0	4,585	0.52
Central China	40,749.3	3,936	0.45
Northwest China	17,275.1	4,029	0.46
Fujian Province	8,008.0	4,020	0.46
Shandong Province	17,380.1	4,837	0.55
Guangdong Province	29,027.7	3,578	0.41
Guangxi Province	5,645.0	4,036	0.46
Hainan Province	1,536.7	2,388	0.27
Chongqing	3,157.0	4,004	0.46
Sichuan Province	11,942.3	3,715	0.42
Guizhou Province	4,578.2	5,151	0.59
Yunnan Province	5,995.6	4,027	0.46
Urumqi	2,160.0	4,924	0.56
Lhasa	159.0	1,767	0.20
Total/Average	265,233.7	4,566	0.52
National Total	277,290.0		

Source: EB, China Electric Power Yearbook, 1999.

8. 1999

Network	Installed Capacity (MW)	Annual Generation (TWh)	Implied Average ^[1] Utilization (hours)	Average Capacity Factor
North China	40,716.2	192.2	4,721	0.54
Northeast China	35,943.9	144.9	4,031	0.46
East China	51,986.4	226.9	4,364	0.50
Central China	43,365.4	167.3	3,858	0.44
Northwest China	18,021.9	73.6	4,085	0.47
Fujian Province	9,657.4	35.6	3,686	0.42
Shandong Province	18,017.8	91.2	5,062	0.58
Guangdong Province	30,333.7	114.0	3,758	0.43
Guangxi Province	5,953.0	24.4	4,103	0.47
Hainan Province	1,663.6	3.9	2,323	0.27
Chongqing	3,182.3	13.2	4,154	0.47
Sichuan Province	14,670.1	45.0	3,064	0.35
Guizhou Province	5,518.8	27.1	4,904	0.56
Yunnan Province	6,340.8	26.8	4,227	0.48
Urumqi	2,144.0	11.5	5,360	0.61
Lhasa	159.0	0.3	1,918	0.22
Total/Average	287,674.3	1,197.9	4,393	0.50
National Total	298,767.9	1,233.1		

[1] For 1999 and later years, average utilization hours are no longer reported. This column is calculated based on installed capacity and annual generation.

Source: EB, China Electric Power Yearbook, 2000.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

9. 2000

Network	Installed Capacity (MW)	Annual Generation (TWh)	Implied Average ^[1] Utilization (hours)	Average Capacity Factor
North China	42,769.1	210.8	4,930	0.56
Northeast China	37,862.1	153.8	4,063	0.46
East China	56,663.3	259.6	4,582	0.52
Central China	45,560.6	179.6	3,943	0.45
Northwest China	19,220.6	80.1	4,168	0.48
Fujian Province	10,415.3	40.3	3,868	0.44
Shandong Province	19,612.5	99.8	5,089	0.58
Guangdong Province	31,895.6	135.3	4,243	0.48
Guangxi Province	7,390.9	28.8	3,901	0.45
Hainan Province	1,791.3	4.1	2,288	0.26
Chongqing	3,061.5	13.4	4,371	0.50
Sichuan Province	15,932.4	51.0	3,204	0.37
Guizhou Province	5,557.9	29.6	5,334	0.61
Yunnan Province	6,542.3	28.6	4,378	0.50
Urumqi	2,717.7	13.5	4,956	0.57
Central Tibet	180.9	0.3	1,802	0.21
Total/Average	307,174.0	1,329.0	4,517	0.52
National Total	319,320.9	1,368.5		

[1] For 1999 and later years, average utilization hours are no longer reported. This column is calculated based on installed capacity and annual generation.

Source: EB, China Electric Power Yearbook, 2001.

10. 2004

Network	Network	Installed Capacity (MW)	Annual Generation (TWh)	Implied Average ^[1] Utilization (hours)	Average Capacity Factor
State Grid	North China	82,612.2	451.0	5,459	0.62
	Beijing	4,514.4	20.5	4,552	0.52
	Tianjin	6,013.5	34.0	5,646	0.64
	Hebei	20,730.0	125.5	6,056	0.69
	Shanxi	18,430.7	106.9	5,803	0.66
	Shandong	32,923.6	164.0	4,981	0.57
	Northeast China	41,990.4	204.4	4,868	0.56
	East Inner Mongolia	3,760.1	21.3	5,671	0.65
	Liaoning	16,506.4	88.8	5,377	0.61
	Jilin	9,595.9	39.5	4,113	0.47
	Heilongjiang	12,128.0	54.9	4,523	0.52
	East China	97,214.6	488.0	5,020	0.57
	Shanghai	12,018.3	71.1	5,919	0.68
	Jiangsu	28,433.6	163.9	5,764	0.66
	Zhejiang	30,953.9	125.9	4,067	0.46
	Anhui	10,300.8	61.1	5,934	0.68
	Fujian	15,508.0	66.0	4,254	0.49
	Central China	96,287.8	439.6	4,566	0.52
	Henan	24,226.5	116.2	4,798	0.55
	Hubei	24,624.4	112.5	4,571	0.52
	Hunan	14,227.8	61.4	4,317	0.49
	Jiangxi	8,045.9	34.0	4,228	0.48
	Chongqing	4,880.0	21.9	4,485	0.51
	Sichuan	20,283.2	93.5	4,611	0.53
	Northwest China	30,464.2	153.8	5,047	0.58
	Shaanxi	8,786.1	47.2	5,372	0.61
	Gansu	8,835.9	45.7	5,171	0.59
	Qinghai	4,943.2	17.3	3,495	0.40
	Ningxia	4,190.7	26.3	6,282	0.72
	Xinjiang (Main network)	3,708.3	17.3	4,655	0.53
Southern Power Grid	Guangdong	42,621.0	212.1	4,977	0.57
	Guangxi	9,418.5	37.4	3,968	0.45
	Hainan	2,140.4	6.9	3,212	0.37
	Guizhou	12,219.0	62.9	5,150	0.59
	Yunnan	11,365.5	53.7	4,722	0.54
	Total/Average	426,333.6	2,109.7	4,949	0.56
	National Total	442,387.3	2,497.5		

[1] For 1999 and later years, average utilization hours are no longer reported. This column is calculated based on installed capacity and annual generation.

Source: EB, China Electric Power Yearbook, 2005.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

11. 2005

Network	Network	Installed Capacity (MW)	Annual Generation (TWh)	Implied Average ^[1] Utilization (hours)	Average Capacity Factor
State Grid	North China	94,670.4	514.8	5,438	0.62
	Beijing	4,882.5	21.4	4,376	0.50
	Tianjin	6,178.9	37.3	6,030	0.69
	Hebei	23,165.7	133.9	5,778	0.66
	Shanxi	23,029.8	131.2	5,697	0.65
	Shandong	37,413.5	191.1	5,109	0.58
	Northeast China	44,243.3	217.9	4,924	0.56
	East Inner Mongolia	4,064.7	23.7	5,835	0.67
	Liaoning	17,538.3	90.1	5,140	0.59
	Jilin	10,165.5	43.3	4,264	0.49
	Heilongjiang	12,474.8	60.7	4,863	0.56
	East China	123,613.4	574.5	4,647	0.53
	Shanghai	13,366.8	74.2	5,548	0.63
	Jiangsu	42,707.9	212.0	4,964	0.57
	Zhejiang	37,743.4	145.6	3,859	0.44
	Anhui	12,173.0	64.8	5,326	0.61
	Fujian	17,622.3	77.8	4,416	0.50
	Central China	108,396.4	496.4	4,580	0.52
	Henan	28,807.7	138.2	4,797	0.55
	Hubei	27,415.2	129.0	4,705	0.54
	Hunan	15,116.8	64.7	4,278	0.49
	Jiangxi	8,925.0	37.3	4,185	0.48
	Chongqing	5,676.2	25.4	4,471	0.51
	Sichuan	22,455.6	101.9	4,537	0.52
	Northwest China	35,609.3	172.4	4,842	0.55
	Shaanxi	10,756.1	48.8	4,538	0.52
	Gansu	9,860.4	50.8	5,156	0.59
	Qinghai	5,711.8	21.6	3,780	0.43
	Ningxia	5,117.7	30.9	6,033	0.69
	Xinjiang (Main network)	4,163.3	20.3	4,873	0.56
Southern Power Grid	Guangdong	48,081.8	227.9	4,739	0.54
	Guangxi	11,016.6	44.6	4,049	0.46
	Hainan	2,114.7	8.2	3,887	0.44
	Guizhou	14,347.8	69.3	4,828	0.55
	Yunnan	12,751.5	60.5	4,745	0.54
	Total/Average	494,845.2	2,386.5	4,823	0.55
	National Total	517,184.8	2,497.5		

[1] For 1999 and later years, average utilization hours are no longer reported. This column is calculated based on installed capacity and annual generation.

Source: EB, China Electric Power Yearbook, 2006.

Table 2B.18. Installed Capacity and Performance of Large Power Networks

12. 2006

Network	Network	Installed Capacity (MW)	Annual Generation (TWh)	Implied Average ^[1] Utilization (hours)	Average Capacity Factor
State Grid	North China	116,197.9	583.4	5,021	0.57
	Beijing	5,060.9	21.1	4,176	0.48
	Tianjin	6,540.9	36.3	5,546	0.63
	Hebei	27,090.0	146.1	5,393	0.62
	Shanxi	27,451.3	152.6	5,560	0.63
	Shandong	50,054.8	227.3	4,540	0.52
	Northeast China	47,880.6	237.8	4,967	0.57
	East Inner Mongolia	4,986.6	26.6	5,327	0.61
	Liaoning	18,338.1	101.1	5,510	0.63
	Jilin	11,131.2	45.6	4,093	0.47
	Heilongjiang	13,424.7	64.6	4,814	0.55
	East China	151,929.7	666.8	4,389	0.50
	Shanghai	14,779.8	72.7	4,917	0.56
	Jiangsu	53,042.7	253.7	4,782	0.55
	Zhejiang	46,869.7	176.6	3,769	0.43
	Anhui	15,190.5	73.4	4,834	0.55
	Fujian	22,047.0	90.4	4,101	0.47
	Central China	129,109.5	547.9	4,243	0.48
	Henan	35,156.1	157.3	4,473	0.51
	Hubei	29,943.8	131.3	4,385	0.50
	Hunan	19,379.5	74.8	3,861	0.44
	Jiangxi	9,855.7	43.6	4,422	0.50
	Chongqing	7,597.0	28.9	3,799	0.43
	Sichuan	27,177.4	112.0	4,122	0.47
	Northwest China	41,115.8	198.5	4,828	0.55
	Shaanxi	11,033.0	53.0	4,807	0.55
	Gansu	11,008.0	53.1	4,825	0.55
	Qinghai	6,939.6	28.0	4,034	0.46
	Ningxia	6,553.2	39.3	5,996	0.68
	Xinjiang (Main network)	5,582.0	25.1	4,488	0.51
Southern Power Grid	Guangdong	53,898.9	135.3	2,511	0.29
	Guangxi	13,058.1	28.8	2,208	0.25
	Hainan	2,585.5	4.1	1,585	0.18
	Guizhou	19,363.5	29.6	1,531	0.17
	Yunnan	18,261.1	28.6	1,568	0.18
	Total/Average	593,400.6	2,460.9	4,147	0.47
	National Total	623,698.0	1,368.5		

[1] For 1999 and later years, average utilization hours are no longer reported. This column is calculated based on installed capacity and annual generation.

Source: EB, China Electric Power Yearbook, 2007.

Table 2B.19. 50 Largest Thermal Power Plants, 2006

	Name	Location	Installed Capacity (MW x no units)	Power Generation (TW)	Average Usage (h)	Self-Use (%)
1	Datang Tuoketuo Power Generation Company	Inner Mongoli	600x8	22.3	4,823	5.2
2	Huayang Houshi Power Plant	Fujian	600x6	19.1	5,308	6.8
3	Zouxian Power Plant	Shandong	600x2, 335x4, 1000x1	13.8	5,163	4.7
4	Guohua Yue Diantaishan Power Plant	Guangdong	600x5	15.2	6,370	4.9
5	Huaneng Dezhou Power Plant	Shandong	700x2, 330x1, 310x2, 300x1	14.5	5,480	5.1
6	Dalate Power Plant	Inner Mongoli	330x6, 600x1	13.9	6,882	7.1
7	Datang Zhangjiakou Power Plant	Hebei	300x8	14.2	5,917	4.4
8	Xibeipo Power Generation Company	Hebei	300x4, 600x2	9.1	5,875	5.5
9	Datang Wushashan Power Plant	Zhejiang	600x4	6.2	5,515	4.0
10	Guohua Zheneng Power Generation Company	Zhejiang	600x4	7.5	5,515	5.2
11	Jiahua Power Plant	Zhejiang	600x4	15.5	6,473	4.2
12	Nayong Power Plant	Guizhou	300x8	11.3	5,732	5.7
13	Guodian Jianbi Power Plant	Jiangsu	50x2, 100x3, 300x4, 330x2	12.9	5,708	5.4
14	Yangcheng International Power Generation Company	Shanxi	350x6	11.8	5,617	5.4
15	Huaneng Luohuang Power Plant	Chongqing	360x4, 600x1	9.1	6,141	9.6
16	Huaneng Yuhuan Power Plant	Zhejiang	1000x2	0.9	4,416	5.4
17	Shajiao C Power Plant	Guangdong	660x3	13.1	6,639	7.1
18	Huarun Electricity (Changshu)	Jiangsu	650x3	10.4	5,317	5.0
19	Xingtai Power Plant	Hebei	220x6, 300x2	11.8	6,129	7.0
20	Xiangtan Power Generation Company	Hunan	25x2, 50x1, 300x2, 600x2	6.0	4,690	5.6
21	No.2 Yangzhou Power Plant	Jiangsu	630x2, 600x1	7.5	5,670	4.1
22	Zhenjiang Power Generation Company	Jiangsu	137.5x2, 140x2, 630x2	9.2	5,235	5.1
23	No.2 Waigaoqiao Power Generation Company	Shanghai	900x2	10.7	5,953	3.8
24	Huaneng Taicang Power Generation Company	Jiangsu	300x2, 600x2	9.8	5,601	4.9
25	Beilun Power Generation Company	Zhejiang	600x3	11.3	6,279	4.2

Table 2B.19. 50 Largest Thermal Power Plants, 2006 (continued)

	Name	Location	Installed Capacity (MW x no units)	Power Generation (TW)	Average Usage (h)	Self-Use (%)
26	Zheneng Lanxi Power Plant	Zhejiang	600x3	4.8	6,404	4.8
27	Datang Sanmenxia Power Plant	Henan	600x2, 300x2	4.7	3,740	5.1
28	Mawan Power Plant	Guangdong	300x6	12.3	6,822	4.5
29	Guang'an Power Plant	Sichuan	300x4, 600x1	6.3	5,101	6.2
30	Diandong Power Plant I	Yunnan	600x3	6.5	7,061	5.2
31	Guodian Yiwei Power Generation Company	Yunnan	300x6	9.0	6,241	4.5
32	Huaneng Huaiyin Power Plant	Jiangsu	220x2, 330x4	7.0	5,272	7.6
33	Qianbei Power Plant	Guizhou	125x4, 300x4	11.6	6,824	6.4
34	Suizhong Power Generation Company	Liaoning	800x2	10.5	6,541	4.3
35	No.3 Harbin Power Plant	Heilongjiang	600x2, 200x2	8.8	5,515	5.8
36	Datang Douhe Power Plant	Hebei	200x4, 250x2, 125x2	10.5	6,804	6.2
37	Taichang Harbor Environmental Protection Power Generation Company	Jiangsu	300x2, 135x2, 330x2	8.4	5,653	4.3
38	Heze Power Plant	Shandong	125x2, 300x2, 330x2	6.8	4,741	6.1
39	Yuanbaoshan Power Plant	Inner Mongolia	300x1, 600x2	9.6	6,418	6.2
40	Taizhou Power Plant	Zhejiang	135x5, 330x2, 132.534x1	9.8	6,698	7.2
41	Ligang Power Plant	Jiangsu	350x2, 370x2	8.1	5,706	4.5
42	Huaneng Nantong Power Plant	Jiangsu	352x2, 350x2	7.7	5,456	3.5
43	Huaneng Dalian Power Plant	Liaoning	350x4	10.0	7,162	3.9
44	Huaneng Fuzhou Power Plant	Fujian	350x4	8.2	5,883	3.8
45	Huangdao Power Plant	Shandong	140x2, 225x2, 660x1	4.7	5,352	7.3
46	Jiujiang Power Plant	Jiangxi	350x2, 200x2, 125x1, 135x1	7.5	5,494	6.4
47	Weifang Power Plant	Shandong	330x2, 670x1	4.2	5,238	5.6
48	Huaneng Hunan Yueyang Power Generation Company	Hunan	300x2, 362.5x2	6.3	5,291	7.3
49	Hanfeng Power Plant	Hebei	660x2	7.9	6,009	5.2
50	Jiaozuo Power Plant	Henan	220x6, 300x2	6.4	4,828	9.2

N.B. Ranked by capacity.

Source: China Electric Power Yearbook, 2007.

Table 2B.20. Large Hydropower Stations (>1GW) in Operation and Under Construction

1. 1996

Name	River	Province	Years of Commissioning	Active Storage (Gm3)	Dam Type	Dam Height (m)	Design Head (m)	Average Discharge (m3/s)	Installed Capacity (MW x Units)	Annual Output (TWh)
Baishan	Songhua Jiang	Jilin	1983-1991	3.54	AG	149.5	110	239	300x5	2.04
Shuikou	Minjiang	Fujian	1993-1996	0.70	G	101	43.5	1,728	200x7	4.95
Wujiangxi	Yuanshui	Hunan	1994-1996	2.02	G	87.5	42	2,050	240x5	5.37
Gezhouba	Changjiang (Yangtze R.)	Hubei	1981-1989		BA	47	18.61	4,300	170x2, 125x19	14.10
Geheyan	Qingjiang	Hubei	1993-1994	2.20	AG	151	99	390	300x4	3.04
Guangzhou Pumped Storage	Liuxi tributary	Guangdong	1993-1994	0.01-0.01 (U/D)	R	68/34 (U/D)	523/542 (G/P)	222/273 (G/P)	300x4	2.38/3.14 (G/P)
Guangzhou Pumped Storage Phase II	Liuxi tributary	Guangdong	U.C.						300x4	
Yantan	Hongshui	Guangxi	1992-1995	1.53	G	111	55.5	1,760	302.5x4	5.37
Ertan	Yalongjiang	Sichuan	U.C.	3.37	AG	240	155	1,670	550x6	17.00
Tianshengqiao II	Nanpanjiang	Guizhou, Guangxi	U.C.	0.02	G	58.7	176	615	220x2, 220x4	4.92/8.20
Tianshengqiao I	Nanpanjiang	Guizhou, Guangxi	U.C.	6.70	R	180	110	612	300x4	5.38
Manwan	Lancangjiang	Yunnan	1993-1995	0.26	G	128	83.5	1,200	250x5	5.48
Liujiaxia	Huanghe (Yellow R.)	Gansu	1969-1974	4.15	G	147	100	877	225x4, 260x1	5.58
Longyangxia	Huanghe (Yellow R.)	Qinghai	1987-1989	19.40	AG	178	120	640	320x4	5.98
Lijiaxia	Huanghe (Yellow R.)	Qinghai	U.C.	0.06	G	175	120	662	400x5	5.90
Xiaolangdi	Huanghe (Yellow R.)	Henan	U.C.	5.10	R	154	112	312	300x6	5.10
Tianhuangping Pumped Storage	Daxi	Zhejiang	U.C.						300x6	
Three Gorges Project	Changjiang (Yangtze R.)	Hubei	U.C.	165	G	175	80.6	14,300	700x26	84.00

Key of abbreviations: U.C. = under construction; U/D = upper reservoir/downstream reservoir; G/P = generation/pump. Dam Types: G = Gravity Dam; BA = Barrage; E = Earth Dam; A = Arch Dam; B = Buttress Dam; AG = Arch=Gravity Dam R = Rockfill Dam.

Source: SETC, China Energy Annual Review, 1997; Fuggle, et al. 2000.

2. 2001

Name	River	Province	Installed Capacity (MW x Units)	Under construction (MW x Units)	Annual Generating Capacity (TWh)
Baishan	Songhua Jiang	Jilin	300x5		2.04
Shuikou	Minjiang	Fujian	200x7		4.95
Wujiangxi	Yuanshui	Hunan	240x5		5.37
Gezhouba	Changjiang (Yangtze R.)	Hubei	170x2, 125x19		15.70
Geheyan	Qingjiang	Hubei	300x4		3.04
Guangzhou Pumped Storage	Liuxi tributary	Guangdong	300x8		Pumped Storage
Longtan	Hongshui	Guangxi		600x8	18.70
Yantan	Hongshui	Guangxi	302.5x4		5.37
Ertan	Yalongjiang	Sichuan	550x6		17.04
Tianshengqiao II	Nanpanjiang	Guizhou, Guangxi	220x6		8.20
Tianshengqiao I	Nanpanjiang	Guizhou, Guangxi	300x4		5.38
Manwan	Lancangjiang	Yunnan	250x5		5.48
Liujiaxia	Huanghe (Yellow R.)	Gansu	225x5		5.58
Longyangxia	Huanghe (Yellow R.)	Qinghai	320x4		5.98
Lijiaxia	Huanghe (Yellow R.)	Qinghai	400x4		5.90
Xiaolangdi	Huanghe (Yellow R.)	Henan	300x6		4.6/5.9
Tianhuangping Pumped Storage	Daxi	Zhejiang	300x6		Pumped Storage
Three Gorges Project	Changjiang (Yangtze R.)	Hubei		700x26	84.70
Dachaoshan	Lancangjiang	Yunnan	225x1	225x5	7.02
Wanjiashai	Huanghe (Yellow R.)	Shanxi, Inner Mongolia	180x6		2.75
Xiaowan	Lancangjiang	Yunnan		700x6	19.00
Gongboxia	Huanghe (Yellow R.)	Qinghai		300x5	5.14
Tongbai Pumped Storage	Tongbai R.	Zhejiang		300x4	Pumped Storage

Source: EB, China Electricity Power Yearbook, 2002 Fuggle, et al. 2000.

Table 2B.20. Large Hydropower Stations (>1GW) in Operation and Under Construction

3. 2005

Name	River	Province	Installed Capacity (MW x Units)	Self-Use (%)	Annual Generating Capacity (TWh)
Baishan	Songhuajiang	Jilin	300x5, 50x4	0.52	2.60
Shuikou	Minjiang	Fujian	200x7	0.14	5.70
Wujiangxi	Yuanshui	Hunan	240x5	0.22	4.30
Gezhouba	Changjiang (Yangtze R.)	Hubei	170x2, 125x19	0.20	16.20
Geheyuan	Qingjiang	Hubei	306x2, 300x2	0.32	2.20
Guangzhou Pumped Storage	Liuxi tributary	Guangdong	300x8	0.25	3.30
Yantan	Hongshui	Guangxi	302.5x4	0.24	5.20
Ertan	Yalongjiang	Sichuan	550x6	0.16	15.70
Tianshengqiao II	Nanpanjiang	Guizhou, Guangxi	220x6	0.07	6.40
Tianshengqiao I	Nanpanjiang	Guizhou, Guangxi	300x4	0.11	4.10
Manwan	Lancangjiang	Yunnan	250x5	0.16	6.70
Liujiaxia	Huanghe (Yellow R.)	Gansu	225x5, 260x1	0.48	4.40
Longyangxia	Huanghe (Yellow R.)	Qinghai	320x4	0.96	4.40
Lijiaxia	Huanghe (Yellow R.)	Qinghai	400x4	0.42	4.70
Xiaolangdi	Huanghe (Yellow R.)	Henan	300x6	0.42	5.00
Tianhuangping Pumped Storage	Daxi	Zhejiang	300x6	0.26	2.60
Three Gorges Project	Changjiang (Yangtze R.)	Hubei	700x14	0.08	49.10
Dachaoshan	Lancangjiang	Yunnan	225x6	0.18	6.50
Gongboxia	Huanghe (Yellow R.)	Qinghai	300x4	0.62	4.40
Wujiangdu	Wujiang	Guizhou	250x4	0.38	2.40

Source: EB, China Electricity Power Yearbook, 2005.

4. 2006

Name	River	Province	Installed Capacity (MW x Units)	Self-Use (%)	Annual Generating Capacity (TWh)
Baishan	Songhuajiang	Jilin	300x5, 50x4	0.80	1.80
Shuikou	Minjiang	Fujian	200x7	0.10	6.10
Wujiangxi	Yuanshui	Hunan	240x5	0.20	4.40
Gezhouba	Changjiang (Yangtze R.)	Hubei	170x2, 125x19	0.20	14.50
Geheyuan	Qingjiang	Hubei	306x2, 300x2	0.10	1.20
Guangzhou Pumped Storage	Liuxi tributary	Guangdong	300x8	0.30	3.30
Yantan	Hongshui	Guangxi	302.5x4	0.30	4.70
Ertan	Yalongjiang	Sichuan	550x6	0.20	13.90
Tianshengqiao II	Nanpanjiang	Guizhou, Guangxi	220x6	0.20	6.70
Tianshengqiao I	Nanpanjiang	Guizhou, Guangxi	300x4	0.10	4.40
Manwan	Lancangjiang	Yunnan	250x5	0.20	5.40
Liujiaxia	Huanghe (Yellow R.)	Gansu	225x5, 260x1, 35x2, 30x2, 60x1, 40x1	0.40	5.90
Longyangxia	Huanghe (Yellow R.)	Qinghai	320x4	1.00	6.00
Lijiaxia	Huanghe (Yellow R.)	Qinghai	400x4	0.20	5.70
Xiaolangdi	Huanghe (Yellow R.)	Henan	300x6	0.10	5.80
Tianhuangping Pumped Storage	Daxi	Zhejiang	300x6	0.30	2.40
Three Gorges Project	Changjiang (Yangtze R.)	Hubei	700x14	0.10	49.20
Dachaoshan	Lancangjiang	Yunnan	225x6	0.20	5.50
Gongboxia	Huanghe (Yellow R.)	Qinghai	300x5	0.60	5.20
Wujiangdu	Wujiang	Guizhou	250x5	0.60	1.30
Tongbai Pumped Storage		Zhejiang	300x4	0.60	0.50
Wanjiashai	Huanghe (Yellow R.)	Shanxi, Inner Mongolia	180x6	0.30	2.60
Sanbanxi	Wanshui he (Qingshui jiang)	Guizhou	250x4	0.60	0.30

Source: EB, China Electricity Power Yearbook, 2007.

Table 2B.21. Coverage of Rural Electric Grids by Region, 1998-2000

1. 1998

Planning Region	Region	Percent of Townships with Electricity	Percent of Villages with Electricity	Percent of Rural Households with Electricity
North	Beijing	100.00%	100.00%	100.00%
	Tianjin	100.00%	100.00%	100.00%
	Hebei	100.00%	100.00%	99.87%
	Shanxi	100.00%	98.43%	98.40%
	Inner Mongolia	100.00%	92.84%	93.94%
Northeast	Liaoning	100.00%	100.00%	99.89%
	Jilin	100.00%	100.00%	100.00%
	Heilongjiang	100.00%	99.90%	99.50%
East	Shanghai	100.00%	100.00%	100.00%
	Jiangsu	100.00%	100.00%	99.91%
	Zhejiang	100.00%	100.00%	99.86%
	Anhui	100.00%	100.00%	98.10%
	Fujian	100.00%	100.00%	99.54%
	Jiangxi	100.00%	98.85%	96.46%
	Shandong	100.00%	100.00%	100.00%
South-Central	Henan	100.00%	100.00%	95.97%
	Hubei	100.00%	99.68%	98.69%
	Hunan	100.00%	99.54%	97.23%
	Guangdong	100.00%	100.00%	99.36%
	Guangxi	100.00%	95.15%	94.65%
	Hainan	99.67%	86.67%	86.10%
Southwest	Chongqing	99.93%	98.17%	96.60%
	Sichuan	96.94%	96.51%	96.07%
	Guizhou	100.00%	84.20%	79.71%
	Yunnan	99.56%	94.06%	86.34%
	Xizang (Tibet)			
Northwest	Shaanxi	98.41%	96.68%	94.04%
	Gansu	98.85%	93.71%	88.78%
	Qinghai	78.49%	81.20%	84.94%
	Ningxia	100.00%	100.00%	93.54%
	Xinjiang	94.22%	93.08%	88.91%
National Average		99.20%	98.10%	96.87%

Source: EB, China Electric Power Yearbook, various years.

Table 2B.21. Coverage of Rural Electric Grids by Region, 1998-2000

2. 1999

Planning Region	Region	Percent of Townships with Electricity	Percent of Villages with Electricity	Percent of Rural Households with Electricity
North	Beijing	100.00%	100.00%	100.00%
	Tianjin	100.00%	100.00%	100.00%
	Hebei	100.00%	100.00%	99.91%
	Shanxi	100.00%	98.58%	98.61%
	Inner Mongolia	100.00%	93.39%	94.25%
Northeast	Liaoning	100.00%	100.00%	99.94%
	Jilin	100.00%	100.00%	100.00%
	Heilongjiang	100.00%	99.91%	99.85%
East	Shanghai	100.00%	100.00%	100.00%
	Jiangsu	100.00%	100.00%	99.99%
	Zhejiang	100.00%	100.00%	99.93%
	Anhui	100.00%	100.00%	99.45%
	Fujian	100.00%	100.00%	99.55%
	Jiangxi	100.00%	98.62%	96.77%
	Shandong	100.00%	100.00%	100.00%
South-Central	Henan	100.00%	100.00%	97.27%
	Hubei	100.00%	99.69%	99.03%
	Hunan	100.00%	99.86%	98.30%
	Guangdong	100.00%	100.00%	99.66%
	Guangxi	100.00%	97.02%	95.92%
	Hainan	100.00%	90.59%	88.43%
Southwest	Chongqing	99.93%	99.19%	97.78%
	Sichuan	97.55%	97.34%	97.18%
	Guizhou	100.00%	84.56%	81.85%
	Yunnan	99.74%	96.63%	89.24%
	Xizang (Tibet)	32.31%	20.63%	30.99%
Northwest	Shaanxi	99.47%	98.94%	96.26%
	Gansu	98.91%	93.95%	90.13%
	Qinghai	78.67%	81.22%	84.97%
	Ningxia	100.00%	100.00%	93.64%
	Xinjiang	96.95%	94.09%	90.15%
National Average		98.31%	97.77%	97.43%

Source: EB, China Electric Power Yearbook, various years

Table 2B.21. Coverage of Rural Electric Grids by Region, 1998-2000

3. 2000

Planning Region	Region	Percent of Townships with Electricity	Percent of Villages with Electricity	Percent of Rural Households with Electricity
North	Beijing	100.00%	100.00%	100.00%
	Tianjin	100.00%	100.00%	100.00%
	Hebei	100.00%	100.00%	99.98%
	Shanxi	100.00%	98.73%	98.87%
	Inner Mongolia	100.00%	95.02%	95.03%
Northeast	Liaoning	100.00%	100.00%	99.97%
	Jilin	100.00%	100.00%	100.00%
	Heilongjiang	99.91%	99.90%	99.86%
East	Shanghai	100.00%	100.00%	100.00%
	Jiangsu	100.00%	100.00%	99.99%
	Zhejiang	100.00%	100.00%	99.95%
	Anhui	100.00%	100.00%	99.75%
	Fujian	100.00%	100.00%	99.72%
	Jiangxi	100.00%	99.19%	98.06%
	Shandong	100.00%	100.00%	100.00%
South-Central	Henan	100.00%	100.00%	98.00%
	Hubei	100.00%	99.73%	99.16%
	Hunan	100.00%	99.93%	98.80%
	Guangdong	100.00%	100.00%	99.72%
	Guangxi	100.00%	98.32%	96.56%
	Hainan	100.00%	97.77%	92.81%
Southwest	Chongqing	100.00%	99.81%	99.00%
	Sichuan	97.91%	97.64%	97.46%
	Guizhou	100.00%	90.09%	85.72%
	Yunnan	98.67%	98.41%	91.56%
	Xizang (Tibet)	37.05%	20.65%	40.14%
Northwest	Shaanxi	99.95%	99.71%	97.63%
	Gansu	99.42%	95.13%	92.83%
	Qinghai	79.36%	81.79%	85.88%
	Ningxia	100.00%	100.00%	94.75%
	Xinjiang	97.28%	94.10%	89.96%
National Average		98.45%	98.23%	98.03%

Source: EB, China Electric Power Yearbook, various years

Table 2B.22. Rural Electricity Coverage and Consumption

1. Rural Electrification

	Unit	1978	2000	2005
Rural population	million	790.1	808.4	745.4
Poverty standards	yuan/person	100.0	625.0	683.0
Poverty population	million	250.0	32.1	23.7
Percentage of Poverty	%	30.7	3.5	2.5
Population without electricity	million	450.0	35.0	11.5
Percentage of electrification	%	43.0	95.7	98.5
Electricity consumption per capita	kWh	7.9 ^[1]	83.6	149.0

[1] 1980 data.

Source: NBS and China Electricity Council.

2. Distribution of Song Dian Dao Xiang Systems (Distribute Electricity to Rural Villages) by 2006

Province	Hybrid Systems	Capacity (MW)	Small Hydro	Capacity (MW)
Shaanxi	9	0.1	16	22.0
Qinghai	112	3.9	0	0.0
Gansu	20	1	8	35.2
Xinjiang	110	1.4	1	0.1
IMAR	42	0.8	0	0.0
Sichuan	40	1.8	205	202.4
Tibet	329	6.7	72	15.1
Total	662	15.7	302	274.8

Source: Wallace, W.L., Wu, H., and Wang, Z.Y., Experience for Sustainable Development of Rural Energy in China, 2006

Table 2B.22. Rural Electricity Coverage and Consumption

3. Coverage of Rural Electric Grids ^[2]

	Northeast	North	Northwest	East	South-Central ^[3]	Southwest	National Average
Percent of Townships with Electricity							
1979	98.20%	88.00%	70.00%	90.20%	93.30%	82.60%	87.10%
1983	98.10%	93.60%	76.50%	94.60%	90.70%	84.90%	89.50%
1984	98.90%	93.70%	76.80%	94.80%	90.00%	85.90%	89.70%
1990							95.80%
1993	99.94%	97.36%	91.22%	99.90%	99.67%	94.53%	97.36%
1994	100.00%	97.53%	92.88%	99.99%	99.72%	95.22%	97.77%
1995	100.00%	98.35%	94.42%	100.00%	99.81%	96.14%	98.25%
1996	100.00%	98.35%	94.42%	100.00%	99.81%	96.14%	98.25%
1997	100.00%	100.00%	96.05%	100.00%	99.96%	97.62%	99.03%
1998							99.20%
1999							98.31%
2000							98.45%
2001							98.56%
Percent of Villages with Electricity							
1979	94.50%	78.30%	47.80%	60.70%	64.10%	46.90%	62.60%
1983	96.50%	87.00%	55.60%	76.50%	70.90%	59.10%	73.20%
1984	96.30%	86.30%	60.20%	78.20%	74.30%	69.10%	75.30%
1990							88.00%
1993	99.29%	96.22%	82.92%	98.40%	95.83%	81.66%	93.05%
1994	99.43%	96.53%	85.76%	99.04%	96.93%	86.67%	95.09%
1995	99.45%	96.82%	88.34%	99.62%	97.85%	88.56%	96.06%
1996	99.45%	96.82%	88.34%	99.62%	97.85%	88.56%	96.06%
1997	99.81%	98.15%	93.09%	99.88%	99.08%	92.54%	97.66%
1998							98.10%
1999							97.77%
2000							98.23%
2001							98.53%
Percent of Rural Households with Electricity							
1991							80.00%
1993	99.40%	96.36%	80.96%	92.83%	88.75%	79.49%	89.61%
1994	99.56%	96.67%	83.46%	95.09%	90.82%	82.95%	91.33%
1995	99.68%	97.26%	85.58%	97.10%	93.22%	84.76%	93.30%
1996	99.68%	97.26%	85.58%	97.10%	93.22%	84.76%	93.30%
1997	99.81%	98.04%	89.36%	98.91%	96.07%	89.90%	95.86%
1998							95.86%
2000							98.03%
2001							98.40%

[2] After 1997, regional averages are not reported in the China Electric Power Yearbook.

[3] The decrease in coverage in some areas may reflect a change in organizational structure in rural areas, e.g. some townships were reclassified as municipalities.

Source: Wang, 1988; Jingji Ribao [Economic Daily], 5 August 1991; EB, China Electric Power Yearbook, various years; 1998 Redian Jishu [Cogeneration Technology], 1994, no. 1.

Table 2B.22. Rural Electricity Coverage and Consumption

4. Rural areas without electricity

Planning Region	Region	Counties without Electricity	Towns without Electricity	Villages without Electricity		Total Villages without Electricity	Total Households without Electricity
				Admin Villages	Natural Villages		
North	Beijing						
	Tianjin						
	Hebei			357	43	400	13,800
	Shanxi			259		259	112,000
Northeast	Inner Mongolia			960	2,100	3,060	249,590
	Liaoning			4		4	4,800
	Jilin						
	Heilongjiang			13		13	9,100
East	Shanghai						
	Jiangsu						
	Zhejiang						
	Anhui			17	33	50	80,500
South-Central	Fujian			960	1,400	2,360	249,590
	Jiangxi			17	33	50	287,000
	Shandong			.			
	Henan			700		700	577,000
	Hubei			75	975	1,050	121,500
	Hunan				518	518	279,500
	Guangdong						50,800
	Guangxi			666	34	700	388,600
Southwest	Hainan			253		253	160,300
	Chongqing		3	163		166	191,900
	Sichuan		126	1,459	40	1,625	648,300
	Guizhou			3,000	377	3,377	1,294,000
	Yunnan		4	528		532	1,003,800
	Xizang (Tibet)		486	5,254		5,740	289,300
Northwest	Shaanxi		11	344		355	289,100
	Gansu		9	871	2,384	3,264	360,173
	Qinghai	1	94	773	1,254	2,121	101,000
	Ningxia				1,306	1,306	64,000
	Xinjiang		28	216	1,095	1,339	316,200
National Average		1	761	16,889	11,592	29,242	7,141,853

Source: Proceeding of Renewable Energy Development Strategy Workshop, Oct.2005.

Table 2B.22. Rural Electricity Coverage and Consumption

5. Rural electricity by region, 2004

Province	Township Hydro Power Station (units)	Installed Capacity (MW)	Power Generation (GWh)	Rural Electricity Consumption (GWh)
Beijing	34	13	8.21	3,840
Tianjin				4,840
Hebei	123	30	32.68	31,080
Shanxi	88	23	79.15	6,320
Inner Mongolia	2		0.04	2,670
Liaoning	140	347	651.00	15,800
Jilin	63	48	83.32	2,370
Heilongjiang	13	13	46.11	3,350
Shanghai				11,430
Jiangsu	2		0.08	67,980
Zhejiang	2,546	1,799	3,207.00	44,120
Anhui	511	147	290.09	5,940
Fujian	4,629	1,865	6,060.84	13,760
Jiangxi	1,853	524	1,385.95	4,230
Shandong	12	4	4.31	30,410
Henan	452	62	70.85	15,770
Hubei	626	353	563.18	6,480
Hunan	4,080	652	2,088.71	5,750
Guangdong	5,117	1,832	4,776.60	74,820
Guangxi	744	192	549.75	3,240
Hainan	40	87	45.53	330
Chongqing	630	326	903.13	3,850
Sichuan	2,472	834	3,670.83	10,780
Guizhou	782	238	805.41	3,030
Yunnan	343	238	893.69	4,030
Xizang (Tibet)		32	88.27	60
Shaanxi	632	86	209.46	8,400
Gansu	213	60	190.90	4,140
Qinghai	49	41	227.01	290
Ningxia				900
Xinjiang	130	90	188.07	3,260
Total	27,115	9,938	27,120.07	393,300

Source: NBS, China Rural Statistical Yearbook, 2006.

6. Rural electricity by region, 2005

Province	Township Hydro Power Station (units)	Installed Capacity (MW)	Power Generation (GWh)	Rural Electricity Consumption (GWh)
Beijing	28	12	8.21	4,220
Tianjin				5,520
Hebei	116	37	29.11	33,710
Shanxi	87	23	78.10	6,690
Inner Mongolia	3		0.07	2,930
Liaoning	146	384	1,000.01	18,300
Jilin	80	55	114.69	2,800
Heilongjiang	14	14	46.76	3,630
Shanghai				12,450
Jiangsu	2		0.09	82,510
Zhejiang	2,273	1,920	4,895.00	52,060
Anhui	509	168	333.51	6,400
Fujian	4,959	2,226	8,021.54	16,060
Jiangxi	1,816	609	2,026.43	4,510
Shandong	12	4	3.57	34,650
Henan	405	63	100.24	17,210
Hubei	609	357	565.66	7,010
Hunan	4,262	812	3,429.74	6,520
Guangdong	5,121	1,846	5,137.53	76,640
Guangxi	313	176	404.96	3,430
Hainan	38	84	26.25	380
Chongqing	529	313	938.87	4,290
Sichuan	2,582	942	4,256.69	11,290
Guizhou	791	302	936.20	3,020
Yunnan	603	233	873.10	4,170
Xizang (Tibet)	356	39	93.43	60
Shaanxi	650	161	473.50	8,820
Gansu	234	81	286.93	3,390
Qinghai	50	43	494.03	300
Ningxia				930
Xinjiang	138	101	265.76	3,650
Total	26,726	10,992	34,839.97	437,570

Source: NBS, China Rural Statistical Yearbook, 2006.

Table 2B.23. Transportation of Coal and Oil, 1965-2006 (Billion Tonne-km)

Year	Railway				Pipeline ^[1]			
	Coal (Gt-km)	Coke (Gt-km)	Oil (Gt-km)	Subtotal: Energy Products (Gt-km)	Total Railway Freight (Gt-km)	Energy Products as % of Total Railway Freight	Gas Pipelines (Gt-km)	Oil and Gas Pipelines (Gt-km)
1965	79.29	3.17	17.16	99.62	269.64	36.9%		
1970	95.00	4.07	35.02	134.09	349.14	38.4%		
1975	110.20	4.95	41.24	156.39	424.61	36.8%		26.2
1978	148.13	6.62	35.64	190.39	533.35	35.7%		43.0
1979	164.68	7.28	33.07	205.03	558.87	36.7%		47.6
1980	176.67	6.87	30.07	213.61	570.73	37.4%		49.1
1981	183.17	6.92	28.68	218.77	570.13	38.4%		49.9
1982	199.76	6.49	28.85	235.10	610.90	38.5%		50.1
1983	213.15	7.30	29.96	250.41	663.45	37.7%		53.4
1984	233.55	7.68	31.26	272.49	723.48	37.7%		57.2
1985	259.59	9.59	34.07	303.25	811.16	37.4%		60.3
1986	277.00	10.38	37.53	324.91	875.01	37.1%		61.2
1987	285.74	12.61	39.69	338.04	945.57	35.7%		62.5
1988	299.51	15.36	39.12	353.99	986.02	35.9%		65.0
1989	316.18	17.28	39.99	373.45	1,037.30	36.0%		62.9
1990	344.64	19.46	42.00	406.10	1,060.12	38.3%		62.7
1991	341.42	18.06	43.77	403.25	1,094.81	36.8%		62.1
1992	357.71	19.40	46.18	423.29	1,154.85	36.7%		61.7
1993	358.86	24.65	49.90	433.41	1,192.34	36.3%	1.44	60.6
1994	358.86	29.18	52.06	440.10	1,363.85	32.3%	1.49	61.1
1995	377.72	29.32	61.27	468.31	1,283.69	36.5%	1.65	58.8
1996	404.85	30.27	63.69	498.81	1,292.18	38.6%	1.82	57.9
1997	389.37	31.61	65.67	486.65	1,304.64	37.3%	2.08	57.9
1998	354.31	35.43	67.84	457.58	1,226.15	37.3%	2.55	60.6
1999	357.05	32.44	77.40	466.89	1,257.79	37.1%	3.15	62.8
2000	380.61	40.22	81.60	502.42	1,333.61	37.7%	3.48	63.6
2001	427.60	41.98	90.00	559.58	1,424.98	39.3%	5.10	65.3
2002	463.89	48.76	97.32	609.96	1,507.82	40.5%	7.24	68.3
2003	505.54	63.79	102.93	672.26	1,632.34	41.2%	10.55	73.9
2004	571.30	66.15	109.96	747.41	1,810.99	41.3%	11.86	81.5
2005	637.38	73.83	118.50	829.71	1,934.61	42.9%	30.63	108.8
2006	672.85	82.23	118.02	873.10	2032.16	43.0%		

[1] As of 2006, pipeline data are no longer published in China Statistical Yearbook.

Source: China Transportation Association, 1994; NBS, China Statistical Yearbook, various years.

Figure 2B.10. Transportation of Coal and Oil by Rail, 1980-2006 (Billion Tonne-km)

Table 2B.24. Interprovincial Coal Transfers via Railway (Mt)

1. 2000

ORIGIN	DESTINATION																																
	Beijing	Tianjin	Hebei	Shanxi	Inner Mongolia	Liaoning	Jilin	Heilongjiang	Shanghai	Jiangsu	Zhejiang	Anhui	Fujian	Jiangxi	Shandong	Henan	Hubei	Hunan	Guangdong	Guangxi	Hainan	Chongqing	Sichuan	Guizhou	Yunnan	Shaanxi	Gansu	Qinghai	Ningxia	Xinjiang	Total	Balance	
Beijing	0.89	1.07	1.82		0.02	0.89	0.03			0.06		0.05			0.35																5.19	0.01	
Tianjin		0.14	0.21																												0.35	0.00	
Hebei	1.98	7.06	26.38		0.23	2.16	0.02		0.05	0.29	0.41	0.02			1.29	0.04	0.41	0.11		0.01											40.46	0.00	
Shanxi	11.45	20.87	98.41	17.52	1.36	9.17	0.28	0.05	0.22	14.62	2.46	3.12	0.52	1.33	31.19	5.03	6.56	1.60	0.75	0.44						0.55		0.01			227.52	0.01	
Inner Mongolia	2.66	6.51	5.69	0.03	13.12	4.16	2.02	6.23	0.06	0.10	0.10	0.01	-0.01	0.01	0.32	0.18	0.04	0.01	0.02	0.04	0.00		0.01	0.00	0.01	0.01	0.14	0.41	0.02	0.79	0.02	44.62	
Liaoning			0.03		0.23	27.95	0.59	0.08																							28.88	0.00	
Jilin					0.13	3.77	9.31	0.29																							13.51	0.01	
Heilongjiang					0.27	11.31	14.71	30.14																							56.43	0.00	
Shanghai											0.14																				0.15	0.01	
Jiangsu									0.42	10.44	1.83	0.24	0.05	0.07	0.22																13.27	0.00	
Zhejiang											0.08																				0.09	0.01	
Anhui									0.93	13.78	3.96	20.70	0.34	0.99	0.14	0.01				0.05											40.89	-0.01	
Fujian											1.04		3.64	0.14						0.07											4.89	0.00	
Jiangxi									0.01		1.64	0.05	1.13	5.11			0.04	0.56	0.56	0.20											9.30	0.00	
Shandong			0.07						0.51	6.52	4.02	1.37	0.03	0.36	27.30		0.55	0.11													40.85	0.01	
Henan	0.01	0.04	0.17			0.15			0.18	6.05	1.51	2.33	0.53	2.03	3.25	12.98	19.77	2.69	1.12	0.46							0.06				53.32	-0.01	
Hubei																	0.05	0.01													0.06	0.00	
Hunan											0.29		0.12	0.47			0.04	5.37							0.02						11.91	0.01	
Guangdong																			4.65	0.94											4.73	0.00	
Guangxi																			0.77	2.21											2.98	0.00	
Hainan																					0.05										0.05	0.00	
Chongqing																	0.29	0.02	0.08	0.71			5.59	2.33	0.04						9.06	0.00	
Sichuan														0.11	0.58		1.75	0.16	0.52	10.15	0.05	0.28	0.30								13.90	0.00	
Guizhou													0.01	0.21				0.83	2.15	7.90			0.10	0.53	7.65	0.46					19.82	-0.02	
Yunnan																		0.14	0.04	0.99				0.37	0.10	4.37					6.02	0.01	
Shaanxi		0.01	0.04			0.01			0.06	2.26	0.29	0.33	0.07	0.24	0.41	0.48	2.31	0.12	0.03	0.05							6.66	0.01			13.39	0.01	
Gansu									0.04	0.34	0.10	0.02				0.02	0.06	0.02		0.01							0.77	5.09	0.77		7.24	0.00	
Qinghai																													0.68		0.68	0.00	
Ningxia	0.29	0.94	0.19	0.02	0.18	0.85	2.00	0.03	0.25	0.01					0.01		0.16		0.01				0.01				0.85	3.34	0.22	4.12	0.08	11.58	-1.98
Xinjiang																												1.99			2.32	4.31	0.00
Total	17.28	36.64	133.01	17.57	15.54	60.42	28.96	36.82	2.73	54.47	17.87	28.24	6.43	10.96	64.48	18.74	32.03	11.75	15.14	14.54	0.05	6.22	13.39	7.87	5.12	9.33	10.84	1.70	4.91	2.42	685.45	-0.02	
Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

N.B. The source does not explain why some "interprovincial" transfers are recorded as occurring internal to provinces.

Source: China Transportation Association, 2001.

Table 2B.24. Interprovincial Coal Transfers via Railway (Mt)

2. 2004

ORIGIN	DESTINATION																												Total	Balance			
	Beijing	Tianjin	Hebei	Shanxi	Inner Mongolia	Liaoning	Jilin	Heilongjiang	Shanghai	Jiangsu	Zhejiang	Anhui	Fujian	Jiangxi	Shandong	Henan	Hubei	Hunan	Guangdong	Guangxi	Hainan	Chongqing	Sichuan	Guizhou	Yunnan	Shaanxi	Gansu	Qinghai			Ningxia	Xinjiang	
Beijing	0.13	1.30	1.43			0.99	0.04			0.07		0.02			0.50															4.47	0.01		
Tianjin	0.14	0.10	0.36																											0.60	0.00		
Hebei	4.36	24.64	32.45		0.21	1.70	0.01		0.30	0.96	0.55	0.09	0.01	0.02	2.04	0.08	0.45	0.18		0.01									68.07	-0.01			
Shanxi	12.54	23.55	164.58	23.03	1.47	12.15	0.23	0.09	0.28	17.61	2.83	3.44	0.54	2.69	48.78	7.41	9.84	2.99	0.61	0.15						0.51			335.32	0.00			
Inner Mongolia	1.35	9.84	6.89	0.01	16.53	11.65	7.60	9.79	0.04	0.79	0.50	0.04	0.02	0.13	2.80	0.22	0.25	0.16	0.22	0.08						0.61	0.43	0.39	1.44	71.77	0.01		
Liaoning			0.23		0.14	37.73	0.92	0.12							0.01														39.16	-0.01			
Jilin			0.03		0.01	5.69	10.24	0.02																					15.99	0.00			
Heilongjiang			0.04		0.33	19.57	14.79	34.40																					69.13	0.00			
Shanghai									0.02		0.42																		0.44	0.00			
Jiangsu			0.04	0.06					0.11	8.74	1.97	0.46	0.02	0.07	0.09	0.03	0.03		0.01										11.63	0.00			
Zhejiang											0.65	0.01	0.03																0.68	0.01			
Anhui	0.01		0.09						0.76	11.89	5.41	33.35	0.47	1.79	0.87	0.01	0.42	0.03	0.03										55.12	0.01			
Fujian											1.12	0.01	5.10	0.18				0.08	0.17										6.66	0.00			
Jiangxi											1.65	0.04	1.80	10.71				0.02	1.49	0.12	0.41								16.25	-0.01			
Shandong		0.02	0.38	0.03					0.17	8.09	6.77	1.76	0.13	0.94	32.37	0.33	1.05	0.37	0.01								0.01		52.45	-0.02			
Henan		0.06	0.42			0.13			0.04	9.68	2.00	3.32	0.43	3.72	4.99	20.70	23.25	5.41	0.43	0.42							0.02		75.01	0.01			
Hubei																	0.03												0.04	-0.01			
Hunan											0.46	0.04	0.11	1.23			0.08	7.85	2.49	0.82			0.01	0.01				13.10	0.00				
Guangdong																	0.16	7.54	0.08									7.78	0.00				
Guangxi																	0.01	0.50	2.82									3.33	0.00				
Hainan																				0.07									0.07	0.00			
Chongqing										0.04	0.01			0.08			0.54	0.15	0.04	0.93			6.87	2.31	0.02				11.01	-0.02			
Sichuan										0.01	0.19	0.01	0.11	0.26		0.01	3.83	0.77	0.25	1.31			0.51	14.84	0.73	0.52	0.19		23.55	-0.01			
Guizhou									0.06	0.03	0.38	0.01	0.49	0.65	0.03		0.25	1.71	2.68	14.64	0.03		0.13	0.66	8.71	1.18	0.02		31.67	-0.01			
Yunnan											0.05			0.01			0.05	0.14	1.34							7.00			9.14	0.00			
Shaanxi			0.02	0.33	0.02				0.07	7.12	1.18	0.20	0.02	1.16	2.46	2.28	5.99	0.69	0.08								10.37		32.00	-0.01			
Gansu									0.06	1.17	0.86	0.06	0.04	0.16	0.06	0.22	0.20	0.03	0.01	0.03				0.33			3.08	7.94	0.76	0.01	15.03	-0.01	
Qinghai		0.01	0.15	0.02						0.08	0.02		0.01	0.03	0.02	0.13	0.02		0.01					0.03			0.01	0.15	1.32	2.03	-0.02		
Ningxia	0.05	0.82	0.92	0.01	0.38	1.11	0.01		0.06	0.19	0.03	0.01	0.01		0.37	0.10	0.13							0.02			0.85	3.20	0.53	4.57	0.25	13.63	-0.01
Xinjiang			0.03		0.01					0.14	0.12	0.02		0.03	0.06	0.01			0.01								2.72		0.01	3.80	6.96	0.00	
Total	18.59	60.34	208.07	23.49	19.10	90.72	33.83	44.43	1.99	66.62	27.18	42.88	9.35	23.87	95.45	31.56	46.40	22.12	15.34	23.03	0.11	7.51	18.76	9.47	8.71	15.68	14.44	3.00	6.03	4.05	992.10	0.02	
Balance	-0.01	0.00	-0.01	0.00	0.00	0.00	0.01	-0.01	-0.02	-0.01	-0.01	0.01	-0.01	-0.01	0.00	-0.03	-0.02	0.01	0.01	0.01	-0.01	0.00	-0.01	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01		

N.B. The source does not explain why some "interprovincial" transfers are recorded as occurring internal to provinces.

Source: China Transportation Association, 2005.

Table 2B.24. Interprovincial Coal Transfers via Railway (Mt)

3. 2006

ORIGIN	DESTINATION																																
	Beijing	Tianjin	Hebei	Shanxi	Inner Mongolia	Liaoning	Jilin	Heilongjiang	Shanghai	Jiangsu	Zhejiang	Anhui	Fujian	Jiangxi	Shandong	Henan	Hubei	Hunan	Guangdong	Guangxi	Hainan	Chongqing	Sichuan	Guizhou	Yunnan	Shaanxi	Gansu	Qinghai	Ningxia	Xinjiang	Total	Balance	
Beijing	0.15	1.39	1.73			0.87		0.00		0.05		0.05			0.40															0.00	4.63	0.01	
Tianjin	0.07	0.08	0.20												0.00																0.35	0.00	
Hebei	3.36	20.27	32.66			0.22	1.50	0.01		0.10	0.68	0.20	0.13	0.01	0.07	2.86	0.21	0.53	0.22	0.05	0.00										63.07	0.01	
Shanxi	12.77	24.13	215.75	28.40		1.55	15.87	0.25	0.07	0.33	23.84	2.46	5.09	0.51	2.70	66.36	13.61	13.90	3.97	0.35	0.33		0.00			0.37	0.01			0.06	432.68	0.00	
Inner Mongolia	0.77	18.30	19.79	0.02		22.11	19.80	14.35	12.73	0.00	0.09	0.06	0.01	0.00	0.18	1.31	0.07	0.20	0.06	0.01	0.01		0.00			0.24	0.71	0.05	1.80		112.67	0.00	
Liaoning	0.13	0.00	0.19			0.20	39.17	0.92	0.01		0.00		0.00		0.00	0.00	0.00								0.00						40.62	0.00	
Jilin			0.00			0.00	4.87	7.96	0.11			0.00																			12.94	0.00	
Heilongjiang			0.45			0.15	14.36	18.90	39.29						0.00																0.00	73.15	0.00
Shanghai									0.00		0.86											0.00									0.87	-0.01	
Jiangsu									0.09	7.74	1.54	0.53	0.00	0.15	0.08		0.00	0.05	0.00												10.18	0.00	
Zhejiang									0.00	0.00	1.02	0.00	0.00	0.02																	1.05	-0.01	
Anhui				0.00					0.62	12.27	6.69	36.35	0.59	3.07	1.07	0.09	0.82	0.03														61.60	0.00
Fujian								0.00		0.00	0.11	0.01	3.84	0.12				0.03	0.03												4.14	0.00	
Jiangxi										0.00	1.38	0.06	1.45	9.56		0.00	0.01	1.30	0.39	0.16					0.00						14.31	0.00	
Shandong		0.00	0.18	0.00					0.04	5.99	5.07	1.88	0.14	1.36	22.65	0.00	1.82	0.42	0.00	0.00			0.00			0.00	0.01	0.01			0.00	39.56	-0.01
Henan		0.05	0.16			0.37	0.00		0.03	7.04	1.36	3.81	0.56	3.97	4.30	16.91	25.38	7.41	0.53	0.47		0.00									72.36	0.01	
Hubei			0.00	0.00							0.01	0.05	0.03			0.00	0.10	0.13	0.00	0.00											0.32	0.00	
Hunan	0.00	0.00									0.00	0.27	0.00	0.09	1.65	0.00	0.05	7.21	2.73	0.97		0.00								0.00	12.97	0.00	
Guangdong																		0.05	6.05	0.00		0.00									6.10	0.00	
Guangxi											0.00			0.00				0.14	0.34	2.61	0.00			0.00							3.09	0.00	
Hainan																									0.00							0.00	
Chongqing			0.00	0.00		0.00				0.10	0.00	0.00	0.00	0.08	0.00		0.07	0.18	0.00	0.67		7.78	1.95	0.01	0.00	0.00	0.00			0.00	10.85	-0.01	
Sichuan					0.00					0.00	0.07	0.01	0.04	0.12		0.00	2.94	0.45	0.10	0.72		0.69	15.81	0.06	0.19	0.10	0.01			0.00	21.32	-0.01	
Guizhou									0.06	0.00	0.37	0.01	0.27	0.84	0.00	0.04	0.06	2.58	2.80	17.05	0.00	0.55	1.14	6.68	1.77	0.01					34.21	0.02	
Yunnan	0.00		0.00							0.00	0.00			0.00	0.00	0.00	0.31	0.14	1.34		0.00	0.87	0.00	8.66						0.00	11.34	-0.02	
Shaanxi			0.03	0.20					0.00	7.79	1.17	0.68	0.02	1.13	5.75	1.97	3.92	0.40	0.04	0.01		0.00				9.13	0.00				32.24	0.00	
Gansu	0.00		0.00	0.00		0.01			0.02	1.65	0.90	0.31	0.03	0.44	0.02	0.15	0.70	0.07	0.00	0.07		0.50			0.00	2.79	7.47	1.29	0.11	0.03	16.58	-0.02	
Qinghai	0.01		0.48	0.04		0.07										0.28	0.24			0.00		0.00		0.00		0.18	0.00	1.07	0.05		2.58	-0.03	
Ningxia	0.29	0.77	1.44	0.02		0.27	1.40	0.00	0.01	0.01	0.32	0.18	0.07	0.01	0.16	0.59	0.20	0.13	0.17	0.00	0.07		0.00	0.00	0.00	0.02	0.32	3.44	0.16	6.99	0.41	17.46	-0.01
Xinjiang																													2.57	0.00	4.49	7.07	-0.01
Total	17.56	64.98	273.08	28.68		24.60	98.19	42.39	52.21	1.31	67.56	23.71	49.00	7.62	25.64	105.41	33.54	50.88	25.18	13.57	24.49	0.00	9.02	20.40	6.76	10.65	13.15	14.22	2.57	8.96	5.01	1,120.34	0.00
Balance	-0.01	0.01	-0.02	0.00		-0.02	0.02	0.00	0.01	-0.01	0.00	0.01	0.00	-0.01	0.01	-0.02	-0.01	-0.01	0.00	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.02	-0.03	

N.B. The source does not explain why some "interprovincial" transfers are recorded as occurring internal to provinces.

Source: China Transportation Association, 2006.

Table 2B.25. Indices of Crude Oil Pipelines

1. 1998

	Pipeline Type/ Administration	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Oil Pipeline Bureau	2,469.9	62.0	44.4	38,324
2	Daqing Oil Bureau	115.1	12.5	12.9	93
3	Xinjiang Oil Bureau	1,082.7	16.5	6.2	1,369
4	Shengli Oil Bureau	426.5	21.4	8.5	643
5	Jilin Oil Corporation	34.7	3.7	2.7	31
6	Huabei Oil Bureau	788.2	16.0	3.9	621
7	Dagang Oil Corporation	80.8	12.0	3.9	72
8	Yumen Oil Bureau	40.0	4.2	1.4	8
9	Liaohe Oil Bureau	466.0	13.9	11.0	1,132
10	Qinghai Oil Bureau	448.6	2.6	3.0	733
11	Henan Oil Bureau	92.7	4.0	1.5	49
12	Maoming Petrochemical Corporation	165.8	20.0	7.2	413
13	Changqing Oil Bureau	353.0	3.8	2.9	218
14	Zhongyuan Oil Bureau	3.6	0.7	0.5	2
15	Xibei Oil Pipeline Headquarters	476.0	5.0	3.4	1,635
16	Tarim Oil Headquarters	493.9	9.0	3.5	944
17	Anshan Refinery	88.0	1.8	1.1	93
18	Jinzhou Petrochemical Corporation	58.0	6.0	3.3	54
19	Jinxi Refinery	30.0	3.0	0.1	2
20	Dalian West Pacific Refining Company	11.7	8.0	3.0	10
Total		9,938.0	311.8	146.6	57,359

Source: NBS, China Statistical Yearbook, 1999.

Note: total includes smaller, unlisted pipelines.

2. 2000

	Pipeline Type/ Administration	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Oil Pipeline Bureau	3,327.0	71.0	44.3	35,886
2	Daqing Oil Bureau	298.0	15.5	12.9	426
3	Xinjiang Oil Bureau	1,152.0	17.3	8.8	1,801
4	Jilin Oil Corporation	35.0	3.7	3.5	43
5	Huabei Oil Bureau	636.0	12.1	2.2	311
6	Dagang Oil Corporation	81.0	12.0	3.5	47
7	Yumen Oil Bureau	40.0	8.0	2.0	11
8	Liaohe Oil Bureau	494.0	14.3	10.4	1,090
9	Qinghai Oil Bureau	435.0	2.0	1.9	0
10	Henan Oil Bureau	92.7	4.0	1.5	45
11	Maoming Petrochemical Corporation	179.0	20.0	10.8	765
12	Changqing Oil Bureau	362.0	2.8	3.9	362
13	Talim Oil Bureau	472.0	4.2	2.8	645
14	Anshan Refinery	88.0	1.8	1.1	93
15	Jinzhou Petrochemical Corporation	58.0	6.0	4.4	0
16	Jinxi Petrochemical Corporation	30.0	3.0	0.8	24
17	Changling Oil Bureau	26.0	1.0	1.3	33
18	Jilin Petrochemical Company	150.0	4.0	4.0	582
19	Sinopec Pipeline Storage and Transport Co.	2,372.2	41.5	26.3	15,595
20	Harbin Petrochemical Company	187.0	5.0	1.8	338
Total		11,200.6	27.4	158.3	59,158

Source: NBS, China Statistical Yearbook, 2001.

Note: total includes smaller, unlisted pipelines.

Table 2B.25. Indices of Crude Oil Pipelines

3. 2002

	Pipeline Type/ Administration	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Pipelines Subsidiary Company	3,327	71.0	42.2	33,533
2	Daqing Oil Fields Ltd. Corporation	298	15.5	12.8	458
3	Xinjiang Oilfields Subsidiary Company	1,127	18.5	9.8	2,022
4	Shengli Oilfields Ltd. Company	347	16.0	6.3	477
5	Jilin Oilfields Subsidiary Company	35	3.7	4.0	49
6	North China (Huabei) Oilfields Subsidiary Co.	636	12.1	2.5	281
7	Dagang Oilfields Subsidiary Company	81	12.0	3.4	17
8	Yumen Oilfields Subsidiary Company	69	8.8	0.6	6
9	Liaohe Oilfields Subsidiary Company	494	14.3	9.6	1,010
10	Qinghai Oilfields Subsidiary Company	435	2.0	2.0	880
11	Jiangnan Subsidiary Company	10	0.3	0.2	2
12	Tianjin Subsidiary Company	45	4.5		
13	Henan Oilfields Subsidiary Company	93	4.0	1.5	47
14	Maoming Petrochemical Corporation	179	20.0	11.2	815
15	Changqing Oilfields Subsidiary Company	826	7.2	6.1	1,547
16	Tarim Oilfields Subsidiary Company	472	4.2	2.7	648
17	Anshan Refinery	88	1.8	1.0	84
18	Jinzhou Petrochemical Subsidiary Company	58	6.0	5.1	115
19	Jinxi Petrochemical Subsidiary Company	30	3.0		
20	Changling Refinery & Petrochemical Corp.	48	9.1	4.2	61
Total		8,698	233.7	125.3	42,051

Source: NBS, China Statistical Yearbook, 2003.

Note: total includes smaller, unlisted pipelines.

4. 2005

	Pipeline Type/ Administration	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Pipelines Subsidiary Company	3,476	75	49.1	29,954
2	Daqing Oil Fields Limited Corporation	298	15.47	11.8	460
3	Xinjiang Oil Fields Subsidiary Company	1,154	13.3	11.3	2,124
4	Shengli Oil Fields Limited Co.	347	17.25	5.5	420
5	Jilin Oil Fields Subsidiary Company	19	6.12	5.0	14
6	North China Oil Fields Subsidiary Company	417	2.37	2.5	297
7	Dagang Oil Fields Subsidiary Company	46	8.77	3.5	24
8	Yumen Oil Fields Subsidiary Company	69	8.79	0.8	15
9	Liaohe Oil Fields Subsidiary Company	494	14.25	8.8	915
10	Qinghai Oil Fields Subsidiary Company	439	3	2.1	911
11	Jiangnan Oil Fields Subsidiary Company	42	1.139	0.8	22
12	Henan Oil Fields Subsidiary Company	92.7	3.8	1.6	37
13	Zhongyuan Oil Fields Subsidiary Company	1	8	1.8	2
14	Maoming Petrochemical Co.	170	20	13.3	996
15	Changqing Oil Fields Subsidiary Company	1,146	14.05	8.4	2,508
16	Tarim Oil Fields Subsidiary Company	723	5.93	3.6	466
17	Jinzhou Petrochemical Subsidiary Company	79	7.5	5.2	136
18	Jinxi Petrochemical Subsidiary Company	30	3	0.0	0
19	Changling Refinery & Petrochemical Corporation	22	7.3	4.3	47
20	Jilin Petrochemical Subsidiary Company	150	4	4.8	797
Total		15,541	415.08	234.3	72,131

Note: total includes smaller, unlisted pipelines.

Note: data on pipeline in for 2006 is not available in China Statistical Yearbook.

Source: NBS, China Statistical Yearbook, 2006.

Table 2B.26. Indices of Oil Product Pipelines

1. 1998

	Pipeline Administrator	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Yanshan Petrochemical Corporation	25.8	4.7	0.4	3.2
2	Tianjin Petrochemical Corporation	66.3	5.1	0.9	18.3
3	Cangzhou Petrochemical Corporation	12.9	0.7	0.04	0.2
4	Fushun Refinery	267.6	4.4	1.6	371.1
5	Jinzhou Petrochemical Corporation	84.0	1.4	0.7	29.9
6	Jinxi Petrochemical Corporation	63.8	3.8	0.4	11.8
7	Anshan Refinery	51.6	5.1	0.6	6.1
8	Dalian Petrochemical Corporation	10.5	0.8	0.1	0.8
9	Dalian West Pacific Refinery	32.8	4.3	3.0	13.6
10	Daqing Petrochemical Corporation	51.5	1.9	1.2	1.4
11	Zhenhai Refining Ltd.	46.4	1.1	0.3	3.3
12	Jiujiang Petrochemical Corporation	23.3	3.3	0.05	0.2
13	Jingmen Petrochemical Corporation	11.9	0.6	0.1	0.1
14	Wuhan Petrochemical Corporation	15.5	3.5	0.3	0.9
15	Anqing Petrochemical Corporation	2.1	0.1	0.3	0.2
16	Guangzhou Petrochemical Corporation	50.3	3.4	3.1	9.4
17	Maoming Petrochemical Corporation	99.5	3.6	0.6	1.2
18	Lanzhou Petrochemical Corporation	41.4	7.0	0.2	0.7
19	Qilu Petrochemical Corporation	3.0	0.6	0.6	1.8
20	Jilin Petrochemical Refinery	11.0	0.3		
Total		1,319.8	60.8	15.6	690.9

Note: total includes smaller, unlisted pipelines.

Source: NBS, China Statistical Yearbook, 1999.

2. 2000

	Pipeline Administrator	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Yanshan Petrochemical Corporation	25.8	4.7	0.5	3.8
2	Tianjin Petrochemical Corporation	19.9	3.6	0.4	1.2
3	Cangzhou Petrochemical Corporation	8.4	0.3	0.2	0.8
4	Fushun Refinery	268.0	4.4	2.0	455.8
5	Jinzhou Petrochemical Corporation	84.0	1.4	0.8	34.9
6	Jinxi Petrochemical Corporation	64.0	3.4	1.1	30.9
7	Anshan Refinery	51.0	3.5	0.2	2.7
8	Dalian Petrochemical Corporation	11.0	0.8	0.1	0.8
9	Changling Oil Bureau	24.5	0.3	0.003	0.04
10	Daqing Oil Bureau	51.0	1.9	0.2	0.2
11	Zhenhai Refining Ltd.	46.4	1.1	0.8	6.5
12	Jiujiang Petrochemical Corporation	18.7	2.6	0.1	0.3
13	Jingmen Petrochemical Corporation	11.9	0.6	0.1	0.2
14	Wuhan Petrochemical Corporation	15.2	3.5	0.3	1.1
15	Anqing Petrochemical Corporation	2.1	0.1	0.2	0.2
16	Guangzhou Petrochemical Corporation	47.5	3.3	4.2	18.4
17	Maoming Petrochemical Corporation	25.2	2.1	0.4	1.4
18	Qilu Petrochemical Corporation	3.0	0.6	0.9	2.7
19	Oil Pipeline Bureau (not operating)	11.0	3.0		
20	Daqing Petrochemical Corporation	36.0	1.0	0.5	8.6
Total		1,196.6	44.1	14.6	974.5

Note: total includes smaller, unlisted pipelines.

Source: NBS, China Statistical Yearbook, 2001.

Table 2B.26. Indices of Oil Product Pipelines

3. 2002

	Pipeline Administrator	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Yanshan Petrochemical Ltd.	26	4.7	0.4	2.7
2	Tianjin Petrochemical Corporation	3	0.2	2.2	
3	Fushun Petrochemical Subsidiary Company	268	4.4	1.3	539.5
4	Jimson (Jinzhou) Petrochemical Subsidiary Co.	126	2.4	1.1	53.3
5	Jinxi Petrochemical Subsidiary Company	64	3.4	0.1	32.4
6	Anshan Refinery	52	3.5	0.1	2.0
7	Dalian Petrochemical Subsidiary Company	11	0.8	0.0	0.4
	China Petrochemical Corporation Changling	99	0.8	0.2	0.2
8	Subsidiary Company				
9	Daqing Petrochemical Subsidiary Company	52	1.9	0.3	0.5
10	Tianjin Subsidiary Company	17	3.4	0.1	1.0
11	Cangzhou Subsidiary Company	10	0.5	0.5	0.3
12	Zhenhai Refinery & Petrochemical Ltd. Company	46	1.1	0.0	5.0
13	Jiujiang Subsidiary Company	19	2.6	0.1	0.2
14	Jingmen Subsidiary Company	12	0.6	0.2	0.1
15	Wuhan Petrochemical Factory	15	3.5	0.2	0.6
16	Anqing Subsidiary Company	2	0.1	4.3	0.2
	China Petrochemical Corporation Guangzhou	67	3.2	3.6	17.0
17	Subsidiary Company				
18	Maoming Refinery & Petrochemical Ltd. Company	201	8.3	0.2	88.8
19	Maoming Petrochemical Industrial Co.	92	0.5	0.1	3.5
20	Qilu Subsidiary Company	3	0.6	0.5	0.3
	Total	1,185	46.3	15.3	748.0

Note: total includes smaller, unlisted pipelines.

Source: NBS, China Statistical Yearbook, 2003.

4. 2005

	Pipeline Administrator	Length (km)	Capacity (Mt/yr)	Throughput (Mt)	Turnover (Mt-km)
1	Beijing Yanshan Subsidiary Company	26	4.7	0.8	6.4
2	Fushun Petrochemical Subsidiary Company	268	4.4	2.8	700.2
3	Jimson Petrochemical Subsidiary Company	126	2.4	1.6	65.1
4	Jinxi Petrochemical Subsidiary Company	64	3.4	1.9	57.6
5	Anshan Refinery	52	3.5	0.0	0.0
6	Dalian Petrochemical Subsidiary Company	11	0.8	0.0	0.0
7	China Petrochemical Corporation Changling	61	0.5	0.0	0.3
8	Subsidiary Company		0.0	0.0	0.0
9	Daqing Petrochemical Subsidiary Company	52	1.9	0.4	0.8
10	Tianjin Subsidiary Company	17	3.4	0.9	2.6
11	Cangzhou Subsidiary Company	8	0.3	0.2	0.8
12	Zhenhai Refinery & Petrochemical Limited Co.	305	4.1	2.9	272.7
13	Jiujiang Subsidiary Company	19	2.6	0.0	0.2
14	Jingmen Subsidiary Company	12	0.6	0.0	0.1
15	Wuhan Petrochemical Factory	15	3.5	0.0	0.1
16	China Petrochemical Corporation Guangzhou	67	24.2	3.9	17.2
17	Subsidiary Company		0.0	0.0	0.0
18	Maoming Petrochemical Industrial Co.	152	6.5	1.6	59.3
19	Qilu Subsidiary Company	3	0.6	0.0	0.0
20	Pipelines Subsidiary Company	1,447	8.0	5.0	4,580.1
	Total	5,443	123.2	35.8	6,007.3

Note: total includes smaller, unlisted pipelines.

Note: data on pipeline in for 2006 is not available in China Statistical Yearbook.

Source: NBS, China Statistical Yearbook, 2006.

Table 2B.27. Indices of Gas Pipelines

1. 2000

Pipeline Type/ Administration		Length (km)	Capacity (million m ³ /year)	Throughput (million m3)	Turnover (million m3-km)
Natural gas pipelines					
1	Oil Pipeline Bureau	857.0	1,200.0	840.0	267,330
2	Southwest Oil & Gas Bureau	6,199.0		7,650.0	1,655,410
3	Daqing Oil Bureau	209.0	1,960.0	760.0	18,270
4	Shengli Oil Bureau	152.0	400.0	220.1	31,386
5	Huabei Oil Bureau	87.0	290.0	280.0	21,110
6	Liaohe Oil Exploration Bureau	788.0	2,480.0	500.0	6,880
7	Dagang Oil Field	132.0	480.0	270.0	18,690
8	Zhongyuan Oil Exploration Bureau	150.0	100.0	87.0	13,050
9	Dian Qian Gui Oil Exploration Bureau	6.6	723.1	66.3	34
10	Jiangnan Oil Bureau	57.5	140.0	31.6	47
11	Xinjiang Oil Bureau	590.0	1,550.0	890.0	149,770
12	Qinghai Oil Bureau	639.0	1,270.0	300.0	
13	Changqing Oil Bureau	129.0	530.0	140.0	
14	Tarim Oil Exploration Bureau	455.0	1,070.0	210.0	19,100
15	Jilin Oil Company	239.0	360.0	40.0	1,120
	Pipeline and Transportation Bureau of Petrochemical Corporation	261.0	76.5	17.1	4,450
17	Beijing Natural Gas Transport Co.	1,090.0	3,000.0	1,170.0	1,270,450
Total		12,041.1	15,629.6	13,472.1	3,477,098
Other gas pipelines					
1	Yanshan	3.0	210.0	96.1	288
2	Tianjin	35.0	670.0	30.0	370
3	Cangzhou	0.50	99.0	7.3	4
4	Jinling	16.0	64.0	48.9	782
5	Jiujiang	4.0	500.0	2.8	11
6	Zhenhai	28.7	625.0	130.9	771
7	Wuhan	22.6	160.0	126.8	1,826
8	Lanzhou	9.0	10.0		
9	Jingmen	3.0	12.0	2.8	8
10	Shijiazhuang	36.5	340.0	52.4	1,085
11	Guangzhou	4.7	9.8	20.4	96
12	Maoming	8.9	296.9	48.5	115
13	Daqing	9.0	10.0	20.0	140
14	Jinxi	1.0	100.0	20.0	10
15	Changling	39.0	200.0		
Total		220.9	3,306.7	606.9	5,506

Source: NBS, China Statistical Yearbook, 2001.

Table 2B.27. Indices of Gas Pipelines

2. 2002

Pipeline Type/ Administration	Length (km)	Capacity (million m ³ /year)	Throughput (million m3)	Turnover (million m3-km)
Natural gas pipelines				
1 Pipelines Subsidiary Company	2,130	3,550	1,291	771,500
2 Southern North Oil & Gas Subsidiary Co.	6,417		8,350	3,567,700
3 Daqing Oilfields Ltd. Corporation	209	1,955	833	20,410
4 Shengli Oilfields Ltd. Corporation	143	400	102	14,545
5 North China (Huabei) Oilfields Subsidiary Co.	87	289	295	20,500
6 Liaohe Oilfields Subsidiary Company	788	2,478	449	4,590
7 Dagang Oilfields Subsidiary Company	132	475	325	30,490
8 Sinopec Zhongyuan Petroleum Co. Ltd.	150	146	113	16,950
9 Xinxing Petrochemical Subsidiary Company	714	12,569	5,649	179,085
10 Southern Prospecting & Exploration Subsidiary Company	6	623	48	24
11 Jiangnan Oilfields Subsidiary Company	58	140	29	108
12 Xinjiang Oilfields Subsidiary Company	590	1,553	1,260	186,130
13 Qinghai Oilfields Subsidiary Company	896	1,465	429	105,110
14 Changqing Oilfields Subsidiary Company	182	2,533	603	31,760
15 Tarim Oilfields Subsidiary Company	455	1,070	411	53,430
16 Jilin Oilfields Subsidiary Company	239	360	46	3,940
China Petrochemical Corporation Pipeline	261	77	24	6,170
17 Transport Subsidiary Company				
18 Beijing Natural Gas Transport Corporation	1,090	3,000	2,048	2,219,500
Total	14,545	32,681	22,302	7,231,942
Other gas pipelines				
1 Daqing Oilfields Ltd. Corporation	9	13		
2 Jinxi Petrochemical Subsidiary Company	1	100		
3 Yanshan Petrochemical Company	3	210	103	308
4 Tianjin Petrochemical Company	2	50		
5 Cangzhou Subsidiary Company	1	99	2	1
6 Jinling Subsidiary Company	16	64	62	990
7 Jiujiang Subsidiary Company	4	500		
8 Zhenhai Refinery & Petrochemical Ltd. Co.	29	625	178	855
9 Wuhan Petrochemical Factory	23	160	71	1,020
10 Jingmen Subsidiary Company	3	12	2	6
11 Shijiazhuang Refinery & Petrochemical Ltd. Co.	37	340	36	778
China Petrochemical Corporation Guangzhou		98	65	306
12 Subsidiary Company	5			
13 Maoming Refinery & Petrochemical Ltd. Co.	53	556	254	2,601
China Petrochemical Corporation Changling		200		
14 Subsidiary Company	39			
15 Tianjin Subsidiary Company	35	670	40	390
Total	257	3,698	812	7,255

Source: NBS, China Statistical Yearbook, 2003.

Table 2B.27. Indices of Gas Pipelines

3. 2005

Pipeline Type/ Administration	Length (km)	Capacity (million m ³ /year)	Throughput (million m3)	Turnover (million m3-km)
Natural gas pipelines				
1 Pipelines Subsidiary Company	3,455	8,500	2,852	2,003,790
2 Southwest Oil & Gas Subsidiary Company	6,591	0	11,255	4,282,621
3 Daqing Oil Fields Limited Corporation	209	1,960	734	17,084
4 Shengli Oil Fields Limited Corporation	143	400	207	29,561
5 North China Oil Fields Subsidiary Company	75	270	67	4,719
6 Liaohe Oil Fields Subsidiary Company	788	2,480	415	7,172
7 Dagang Oil Fields Subsidiary Company	188	910	541	53,122
8 Sinopec Zhongyuan Petroleum Co., LTD Southern Prospecting & Exploiture Subsidiary Company	150	146	90	13,560
9 Jiangnan Oil Fields Subsidiary Company	56	100	18	1,016
10 Xinjiang Oil Fields Subsidiary Company	626	1,880	2,163	284,035
12 Qinghai Oil Fields Subsidiary Company	896	1,470	460	120,996
13 Changqing Oil Fields Subsidiary Company	182	2,530	95	4,719
14 Tarim Oil Fields Subsidiary Company	663	14,570	4,900	701,676
15 Jilin Oil Fields Subsidiary Company	239	360	99	8,532
16 Gas from West to East Pipeline Transport Co.	4,133	0	4,357	14,811,438
17 Beijing Oil and Natural Gas Co.	2,011	6,400	4,034	8,022,010
18 Zhongyuan Oil Fields Subsidiary Company	906	3,260	822	104,457
19 North China Subsidiary Company	219	17,900	782	37,224
20 Southwest Subsidiary Company	661	6,507	3,375	71,689
Total	22,451	71,869	37,409	30,587,655
Other gas pipelines				
1 Daqing Oil Fields Limited Corporation	9	10		
2 Jinxi Petrochemical Subsidiary Company	1	100		
3 Beijing Yanshan Subsidiary Company	3	210		
4 Cangzhou Subsidiary Company	1	1	5	5
5 Jinling Subsidiary Company	45	84	135	2,071
6 Zhenhai Refinery & Petrochemical Limited Co.	39	635	724	6,045
7 Wuhan Petrochemical Factory	23	160		
8 Jingmen Subsidiary company	3	12		
9 Shijiazhuang Refinery & Petrochemical Limited Co.	37	340	49	816
10 China Petrochemical Corporation Guangzhou	10	98	93	382
11 Subsidiary Company		0	0	0
12 Maoming Subsidiary Company	36	464	452	4,196
13 China Petrochemical Corporation Changling	24	307		
14 Subsidiary Company				
15 Tianjin Subsidiary Company	35	670	89	1,177
16 Jinzhou Petrochemical Subsidiary Company	45	320	160	7,200
17 Nanjing Petrochemical Co.	1	124	75	110
18 Maoming Petrochemical Co.	110	440	718	13,187
19 Baling Petrochemical Co.	53	790	216	3,336
20 Anqing Subsidiary Company	2	10	9	17
Total	546	6,225	2,814	39,540

Note: total includes smaller, unlisted pipelines.

Note: data on pipeline in for 2006 is not available in China Statistical Yearbook.

Source: NBS, China Statistical Yearbook, 2006.

Table 2B.28. Renewable Energy Production

1. 1990s.

Technology	Units	1992	1997	1998
Solar technologies				
Solar water heaters	million m ²	2.0	6.33	7.89
Solar heated houses (passive)	million m ²	0.5		6.47
Greenhouses (plastic sheeting covered)	million m ²		830.62	
Solar cookers	thousand units	120	223.9	243.8
Photovoltaic cells (operational)	peak kW _e		354	516
	no. sites		23,689	32,678
Wind technologies				
Small-scale wind generators	thousand units	120	155.6	156.4
	kW		23,237	18,119
	MWh/year		46,634	35,920
	no. users thousand households		157.8	159.1
Micro-scale wind generators	thousand units		86.5	
	kW		181,995	
	MWh/year		446,567	271,794
	no. users thousand households		617.7	566.2
Wind farms (six farms)	MW	5.0		
Wind pumps	units	1,700	1,097	431
	irrigated area (a)		2,699	2,955
Biomass technologies				
Agricultural household biogas digesters (6-10 m ³)	million units	4.5	6.38	6.89
	million units in use		5.72	6.02
	generation per unit (m ³ /yr)		311	330
	total generation (million m ³)		1,778	1,985
Large-scale biogas digesters	thousand m ³	300		
Biomass gasifiers	units	300		
Geothermal and other technologies				
Geothermal power stations	MW	25		
Direct use of geothermal heat	PJ/yr	89.5		
	sites		1,445	1,481
Tidal power stations	MW	8.5		

Source: EC, China Rural Energy Yearbook, various years; Yan, China Energy Development Report, 1994.

Table 2B.28. Renewable Energy Production

2. 2006

Technology	Units	Physical Quantity	Mtce
Solar technologies			
Solar water heaters	million m ²	90	10.80
Solar heated houses (passive)	million m ²	30	0.72
Solar cookers	thousand units	865	0.43
Photovoltaic cells	MW	80	0.03
	GWh	90	
Wind technologies			
Small and micro-scale wind generators	MW	13.8	0.01
	thousand units	111	
	GWh	43.6	
Interconnected wind generators	MW	2,300	0.99
	GWh	2,870	
Biomass technologies			
Agricultural household biogas digesters	million units	21.8	6.61
	generation per unit (m ³ /yr)	386.7	
	total generation (million m ³)	8,410	
Large and medium-scale biogas digesters	thousand m ³	1,500	1.15
	units	3,090	
Biomass power generation	GW	2.1	1.75
	GWh	5,040	
Biodiesel	Mt	0.2	0.34
Biomass ethanol	Mt	1.6	1.47
Geothermal and other technologies			
Geothermal power generation	MW	28	0.05
	GWh	140	
Direct use of geothermal heat			2.13
Small and micro-hydro power technologies			
Small hydro power generation	GW	50	51.4
	TWh	150	
Micro-hydro power generation	MW	197	0.12
	GWh	350	
	thousand units	76	
Large and medium-hydro power generation			
	GW	78.6	91.6
	TWh	266.7	
Biomass conventional Usage			312.5

Source: NBS; China Electricity Council; Ministry of Water Resources; Ministry of Agriculture; Ministry of Land and Resources.

Table 2B.29. Wind Farms: Units and Capacity

1. Total Installed Capacity

Year	Number of Units	Installed Capacity (MW)	Average Size of New Units (kW)
1990		4.00	
1991			
1992			
1993		14.50	
1994		29.30	
1995		36.10	
1996		57.50	
1997	397	145.65	
1998	532	223.95	580
1999	604	268.35	617
2000	727	344.79	621
2001	820	403.20	628
2002	916	468.42	679
2003	1,042	567.02	783

2. Installed Capacity by Province

Province	1997		1998	
	Number of Units	Installed Capacity (MW)	Number of Units	Installed Capacity (MW)
Hebei	16	5.05	24	9.85
Inner Mongolia	91	34.28	110	45.18
Liaoning	36	11.71	46	17.21
Jilin				
Heilongjiang				
Shandong	5	0.28	5	0.28
Shanghai				
Zhejiang	22	6.36	62	30.36
Fujian	6	1.06	6	1.06
Guangdong	58	12.33	110	42.43
Hainan	19	8.76	19	8.76
Gansu	4	1.20	4	1.20
Ningxia				
Xinjiang	140	64.65	146	67.65
Total	397	145.65	532	223.95

N.B. Excludes units 30 kW and under.

Source: Hydropower Planning General Institute, various years.

Table 2B.29. Wind Farms: Units and Capacity

2. Installed Capacity by Province (continued)

Province	1999		2000		2001	
	Number of Units	Installed Capacity (MW)	Number of Units	Installed Capacity (MW)	Number of Units	Installed Capacity (MW)
Hebei	24	9.85	24	9.85	30	13.45
Inner Mongolia	119	51.63	135	56.91	156	71.82
Liaoning	56	23.75	86	46.01	107	62.01
Jilin	11	7.26	49	30.06	49	30.06
Heilongjiang						
Shandong	14	5.68	14	5.68	14	5.68
Shanghai						
Zhejiang	62	30.36	62	30.36	62	30.36
Fujian	6	1.06	26	13.06	26	13.06
Guangdong	135	56.48	153	69.98	153	69.98
Hainan	19	8.76	19	8.76	19	8.76
Gansu	4	1.20	4	1.20	16	8.40
Ningxia						
Xinjiang	154	72.35	155	72.95	188	89.65
Total	604	268.35	727	344.79	820	403.20

Province	2002		2003	
	Number of Units	Installed Capacity (MW)	Number of Units	Installed Capacity (MW)
Hebei	30	13.45	30	13.45
Inner Mongolia	160	76.34	174	88.34
Liaoning	172	102.46	202	126.46
Jilin	49	30.06	49	30.06
Heilongjiang			6	3.60
Shandong	12	5.57	33	25.17
Shanghai			4	3.40
Zhejiang	66	33.35	66	33.35
Fujian	24	12.80	24	12.80
Guangdong	167	79.79	177	86.39
Hainan	19	8.76	19	8.76
Gansu	29	16.20	38	21.60
Ningxia			12	10.20
Xinjiang	188	89.65	208	103.45
Total	916	468.42	1,042	567.02

N.B. Excludes units 30 kW and under.

Source: Hydropower Planning General Institute, various years.

Table 2B.29. Wind Farms: Units and Capacity

3. Installed capacity and turbine capacity Types in 2006

2006		
Province	Number of Units	Installed Capacity (MW)
Hebei	343	325.75
Inner Mongolia	668	508.89
Liaoning	334	232.26
Jilin	303	252.71
Heilongjiang	186	165.75
Shanghai	18	24.40
Jiangsu	68	108.00
Zhejiang	57	33.25
Fujian	90	88.75
Shandong	161	144.60
Guangdong	377	211.14
Hainan	18	8.70
Gansu	163	127.75
Ningxia	195	159.45
Xinjiang	327	206.61
Hong Kong	1	0.80
Total	3,311	2,598.81

Source: Shi Pengfei, Statistics of wind power installed capacity in Chin, May 2007.

2006		
Turbine Capacity (KW)	Percentage (%)	
600	29	
750	20	
850	30	
1,300	1	
1,500	9	
2,000	1	
Others	10	

4. Cumulative and annual installed capacity of wind power 1995-2006

Year	Cumulative Installed Capacity (MW)	Annual Installed Capacity (MW)	Annual Growth Rate
1995	38	23	
1996	79	41	107.9%
1997	170	91	115.2%
1998	224	54	31.8%
1999	268	44	19.6%
2000	344	76	28.4%
2001	400	56	16.3%
2002	468	68	17.0%
2003	567	98	21.2%
2004	764	197	34.7%
2005	1,266	503	65.7%
2006	2,599	1,337	105.3%

Source: Li Junfeng *et al.*., China Wind Power Report, 2007.

Figure 2B.11. Wind Farm Installed Capacity

1. Installed Wind Capacity by Province, 1997-2003 (MW)

2. Installed Wind Capacity by Province, 2006

N.B. Other include: Shanghai, Zhejiang, Fujian, Hainan, and Hong Kong.

Figure 2B.11. Wind Farm Installed Capacity (continued)

3. Cumulative Installed Wind Capacity, 1995-2006 (MW)

Table 2C.1. Sulfur Content of China's Commodity Coal by Region, 1997

	Average Sulfur Content (%)	Extra-low Sulfur	Low Sulfur	Low-Medium (% of total production)	Medium	Medium-High	High and Extra- High
National Average	1.08%	43.48%	18.55%	12.80%	6.70%	6.98%	5.82%
Steam Coal	1.00%	42.13%	21.97%	15.04%	10.30%	3.00%	4.44%
Coking coal	1.10%	45.10%	16.63%	10.71%	3.90%	9.69%	7.44%
North	0.92%	39.14%	23.66%	19.30%	9.85%	3.25%	1.80%
Northeast	0.54%	50.68%	16.61%	3.29%	2.15%	3.87%	0.95%
East	1.12%	45.79%	20.12%	13.37%	5.34%	5.34%	9.89%
South Central	1.18%	61.99%	11.08%	10.07%	4.83%	7.58%	4.44%
Southwest	2.13%	23.87%	10.14%	6.77%	5.33%	14.58%	38.66%
Northwest	1.42%	31.21%	12.66%	14.22%	9.21%	25.13%	5.75%

Note: Percent of total production figures do not add to 100% owing to unknown volumes not shown.

Source: Li *et al.*, 1998.

Table 2C.2. Characteristics of Chinese Steam Coal

1. Steam Coal Output and Characteristics by Mining Authority

Mining Authority	Coal Type	1992 Production (Mt)	1992 Capacity (Mt/yr)	1991 Average Quality					
				Raw Coal		Commodity Coal			
				Ash content, dry weight basis	Gangue content	Ash content, dry weight basis	Gangue content	Total water content	Total sulfur content, dry weight basis
Datong	weakly caking	30.72	33.80	10.33%	1.96%	7.78%	0.08%	8.10%	0.75%
Pingshuo	gas coal	10.52	11.50	21.31%	0.00%	21.31%	0.00%	7.68%	0.95%
Beijing	anthracite	5.63	4.50	25.18%	8.70%	19.95%	0.10%	5.17%	0.26%
Xinglong				41.80%		41.85%	0.50%	6.29%	2.00%
Yangquan	anthracite	16.00	17.35	23.64%	6.96%	18.25%	0.05%	4.48%	1.28%
Jincheng	anthracite	10.85	9.10	19.12%	1.40%	16.46%	0.05%	5.77%	0.34%
Xishan				20.00%	2.45%	20.00%		7.02%	1.39%
Fuxin	long flame	11.18	10.14	17.86%		20.69%	0.01%	13.32%	0.92%
Tiefa	long flame	10.00	12.15	35.99%	1.78%	30.78%	0.30%	11.67%	0.56%
Shenyang				34.48%	1.76%	17.55%	0.65%	18.00%	0.45%
Shulan				30.22%	0.28%	30.19%	0.29%	19.89%	0.28%
Pingzhuang	brown coal	6.13	5.59	19.74%	2.10%	25.80%	0.06%	24.47%	1.18%
Jalai Nur	brown coal	6.13	4.63	15.54%	0.09%	13.63%	0.08%	32.87%	0.28%
Dayan				19.41%	1.74%	19.22%	0.14%	35.21%	0.41%
Huolin He	brown coal	3.97	10.00	23.51%	1.22%	23.77%	1.22%	32.80%	0.51%
Yiminhe				24.55%	1.07%	23.29%	1.10%	38.67%	0.18%
Zibo	lean coal	4.46	1.23	27.22%	0.03%	25.73%	0.03%	5.34%	2.43%
Longkou				14.80%	0.34%	14.81%	0.34%	24.90%	0.60%
Jiaozuo	anthracite	4.21	3.61	23.35%	6.33%	15.23%		8.65%	0.56%
Yima	long flame	8.23	6.00	25.50%	4.22%	25.50%	1.45%	16.80%	1.79%
Zhengzhou	anthr/lean	5.12	4.65	22.27%	2.36%	15.03%	2.50%	4.67%	0.34%
Furong				34.49%	4.41%	32.66%	0.14%	8.29%	3.68%
Songzao				26.90%	0.19%	25.92%	0.04%	6.24%	3.59%
Tongchuan	steam coal	5.94	6.86	28.45%	6.57%	23.46%	0.08%	3.94%	2.53%
Jiaojie				14.85%	4.85%	12.34%	0.11%	9.36%	4.90%
Jingyuan	non-caking	3.45	5.22	15.80%	5.66%	12.41%	0.20%	6.05%	0.44%
Lingwu				22.94%	1.22%	22.94%	1.22%	20.75%	0.00%
Hami				10.29%		8.38%	0.54%	14.88%	0.41%
Wuju				15.94%	0.20%	15.94%	0.20%	7.54%	0.98%

Source: China Energy Research Society, 1994.

Table 2C.2. Characteristics of Chinese Steam Coal (continued)

2. Average Commodity Steam Coal Quality and Output, 1992

Coal classification	Total water content	Water content, dry air basis	Ash content, dry weight basis	Volatile content, dry, ash-free basis	Total sulfur content, dry weight basis	Low heat content, as received (MJ/kg)	Output (Mt)
brown	30.80%	13.33%	28.62%	48.08%	0.51%	16.90	47.27
long flame	13.50%	7.02%	12.50%	42.26%	1.18%	22.34	87.15
non-caking	11.30%	4.74%	12.21%	32.58%	0.67%	26.79	13.70
weakly caking	9.00%	2.59%	9.40%	31.32%	0.74%	29.60	76.30
lean	5.40%	1.21%	27.83%	16.34%	2.20%	24.39	54.19
anthracite	6.30%	2.32%	20.55%	8.68%	1.07%	26.48	220.96
unclassified							87.07
weighted avg/ total	10.25%	4.12%	20.26%	23.23%	1.10%	25.16	586.64

Source: China Energy Research Society, Steam Coal Utilization Technology, 1994.

Table 2C.2. Characteristics of Chinese Steam Coal (continued)

3. Average Commodity Steam Coal Quality and Output by Province, 1998

City/Province	Total water content (%)	Ash content, dry weight basis (%)	Total sulfur content, dry weight (%)	Low heat content, as received (M/kg)	Ash fusion temperature (deg C)
Beijing	4.2	19.59	0.26	24.52	1,221
Hebei	7.1	27.24	0.86	21.97	1,474
Shanxi	5.1	18.42	0.95	26.01	1,487
Neimeng	24.6	22.26	0.84	16.14	1,290
Liaoning	12.3	26.57	0.70	19.76	1,367
Jilin	14.8	36.23	0.40	15.47	1,442
Heilongjiang	6.2	23.94	0.20	23.46	1,367
Jiangshu	7.4	22.30	0.71	22.87	1,458
Zhejiang	5.5	40.62	4.24	18.52	1,341
Anhui	6.7	32.20	0.48	20.66	1,489
Fujian	7.8	22.21	0.96	23.63	1,358
Jiangxi	6.7	34.76	1.37	19.94	1,470
Shandong	9.3	23.29	1.47	22.30	1,381
Henan	6.6	23.55	0.61	23.45	1,422
Hubei	4.7	23.40	3.66	24.20	1,421
Hunan	6.7	28.02	0.94	22.50	1,422
Guangdong	6.4	22.08	1.03	23.69	1,373
Guangxi	11.5	43.77	3.58	14.36	1,385
Sichuan	5.8	27.96	3.01	22.57	1,345
Guizhou	7.1	26.20	3.24	23.21	1,254
Yunnan	8.0	29.42	0.25	22.37	1,300
Shaanxi	4.7	21.04	1.87	25.31	1,451
Ganshu	7.8	11.77	0.48	25.23	1,225
Qinghai	16.6	24.58	0.20	16.93	1,220
Ningxia	3.6	18.73	1.69	26.02	1,340
Xinjiang	11.0	11.64	0.62	24.98	1,172

Source: China Energy Research Society, Steam Coal Utilization Technology, 1999.

Table 2C.3. Generation by Self-Producers^[1], 1980-2006

Year	Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor
1980	15.51	3.86	0.46
1981	15.05	4.17	0.41
1982	17.99	4.89	0.42
1983	20.53	5.55	0.42
1984	23.53	5.96	0.45
1985	26.11	6.36	0.47
1986	31.69	7.62	0.47
1987	35.19	8.81	0.46
1988	39.10	9.72	0.46
1989	44.03	10.50	0.48
1990	47.16	11.19	0.48
1991	50.33	12.52	0.46
1992	59.96	14.57	0.47
1993	67.20	16.26	0.47
1994	65.60	14.41	0.52
1995	71.70	15.80	0.52
1996	76.40	16.64	0.52

[1] Thermal generation units operated by non-utility generators.

No data for this series have been published for years after 1996.

Source: SSB, China Energy Statistical Yearbook, various years; EB, China Electric Power Yearbook, various years; Energy Research Institute.

Table 2C.4. Indices of Five Major Pipelines, 1993

Pipeline	Route	Diameter (mm)	Length (km)	Capacity (Mt/yr)	Year Completed	Throughput (Mt)	Turnover (Mt-km)	Fuel Oil Consumption		Electricity Consumption	
								Total (kt)	Unit (t/Mt-km)	Total (GWh)	Unit (kWh/t-km)
Qingtie ^[1]	Daqing- Tieling	2x720	515.9/523.8	45.00	1971/ 1974	43.44	22,372	30.64	1.37	659	29.5
Tieqin	Qinhuangda Tieling-	720	454.3	20.00	1973	17.24	7,721	21.25	2.75	184	23.8
Tieda	Dalian Linyi-	720	436.4	23.00	1975	18.98	8,318	23.74	2.85	200	24.1
Luning	Yizheng Dongying-	720	665.0	20.00	1978	10.19	6,826	50.74	7.43	147	21.5
Donghuang	Huangdao	720	246.3	16.00	1986	10.62	2,624	21.91	8.35	55	21.0
Sum/Average			1,802.0	124.00		100.48	47,862	148.28	3.10	1,245	26.0
National Total ^[2]			8,741.0	270.42		138.36	59,192				
% of National Total			21%	46%		73%	81%				

[1] Two parallel pipelines.

[2] Includes 79 crude oil and 88 finished oil pipelines. Excludes China's 190 natural gas and 21 other gas pipelines (total length 7,510 km and 195 km respectively).

Source: China Transportation Association, 1994.

Table 2C.5. Thermal Power Generation and Capacity by Plant Size

1. Greater or Less than 6 MW

Year	Power plants $\geq$ 6 MW			Power Plants < 6 MW		
	Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor	Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor
1978		35.36			4.48	
1979	222.35	38.70	0.66	9.55	5.21	0.21
1980	234.29	40.50	0.66	8.11	5.05	0.18
1981	236.76	41.78	0.65	7.04	5.42	0.15
1982	246.90	43.71	0.64	6.40	5.69	0.13
1983	258.88	46.88	0.63	6.12	5.40	0.13
1984	283.96	49.16	0.66	6.25	5.36	0.13
1985	310.20	54.83	0.65	8.10	5.80	0.16
1986	347.82	60.01	0.66	7.27	6.27	0.13
1987	389.96	65.82	0.68	7.13	6.68	0.12
1988	427.28	73.02	0.67	8.61	9.78	0.10
1989	457.50	85.11	0.61	8.70	6.95	0.14
1990	486.80	94.56	0.59	8.17	7.28	0.13
1991	544.52	105.97	0.59	8.13	7.62	0.12
1992	612.32	117.82	0.59	10.40	8.04	0.15
1993		122.69			15.32	
1994		131.27			17.47	
1995	796.58	154.85	0.59	10.76	8.09	0.15
1996	866.46	172.88	0.57	11.34	5.98	0.22
1997		181.20			11.21	
1998	945.00	196.42	0.55		13.45	
1999	999.14	211.73	0.54		11.71	
2000	1,093.89	225.64	0.55		11.90	
2001	1,181.64	241.15	0.56		11.99	

2. Greater or Less than 500 kW

Year	Power Plants ≥ 500 kW			Power Plants < 500 kW		
	Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor	Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor
1980	241.06	43.63	0.63	1.34	1.92	0.08
1981	242.12	44.95	0.61	1.69	2.25	0.09
1982	252.20	46.94	0.61	1.10	2.60	0.05
1983	264.01	50.69	0.59	0.99	1.59	0.07
1984	289.14	52.34	0.63	1.06	2.18	0.06
1985	316.43	58.09	0.62	1.87	2.54	0.08
1986	352.18	63.40	0.63	2.92	2.87	0.12
1987	394.70	69.57	0.65	2.40	3.14	0.09
1988	432.37	78.69	0.63	3.53	4.11	0.10
1989	462.97	87.52	0.60	3.33	4.54	0.08
1990	491.92	97.08	0.58	3.05	4.76	0.07
1991	550.25	108.60	0.58	2.40	4.99	0.05
1992	619.05	120.52	0.59	3.68	5.33	0.08
1993	679.38	132.91	0.58	6.43	5.10	0.14
1994	737.14	140.91	0.60			

Source: SETC, China Annual Energy Review, 1994; SSB, China Energy Statistical Yearbook, various years; SSB, China Statistical Yearbook, various years; EB, China Electric Power Yearbook, various years; Energy Research Institute.

Table 2C.6. Principal Thermal Power Plants 600 MW and Over

1. 1991

	Name	Location	Plant Capacity (MW):		Configuration (MW x no units) ⁽¹⁾	Fuel
			Design	Existing in 12/30/91		
1	Jianbi	Jiangsu	1,625	1,625	3x100, 4x300	coal
2	Harbin No.3	Heilongjiang	1,600	400	2x200, 2x600	coal
3	Douhe	Hebei	1,550	1,550	2x125, 4x200, 2x250	coal
4	Qinghe	Liaoning	1,300	1,300	5x100, 4x200	coal, oil
5	Shentou	Shanxi	1,300	1,300	6x200	coal
6	Xuzhou	Jiangsu	1,300	1,300	4x125, 4x200	coal
7	Xingtai	Hebei	1,290	1,290	6x200	coal
8	Jiaozuo	Henan	1,224	1,024	6x200	coal
9	Beilungang	Zhejiang	1,200	⁽²⁾	2x600	coal
10	Changshu	Jiangsu	1,200	⁽²⁾	4x300	coal
11	Datong No.2	Shanxi	1,200	1,200	6x200	coal
12	Fularji No. 2	Heilongjiang	1,200	1,200	6x200	coal
13	Hanchuan	Hubei	1,200	600	4x300	coal
14	Hualu	Shandong	1,200	600	4x300	coal
15	Jinzhou	Liaoning	1,200	1,200	6x200	coal
16	Pingwei	Anhui	1,200	600	2x600	coal
17	Shajiao A	Guangdong	1,200	400	3x200, 2x300	coal
18	Shalingzi	Hebei	1,200	300	4x300	coal
19	Shidongkou	Shanghai	1,200	1,200	4x300	coal
20	Shidongkou No 2	Shanghai	1,200	⁽²⁾	2x600	coal
21	Tieling	Liaoning	1,200	⁽²⁾	4x300	coal
22	Tongliao	Inner Mongolia	1,200	800	4x200	coal
23	Weihe	Shaanxi	1,200	300	4x300	coal
24	Xibaipo	Hebei	1,200	⁽²⁾	4x300	coal
25	Yaomeng	Henan	1,200	1,200	4x300	coal
26	Zhoushan	Shandong	1,200	1,200	4x300	coal
27	Huangpu	Guangdong	1,100	1,100	4x125, 2x300	coal, oil
28	Wangting	Jiangsu	1,100	1,100	3x300	coal, oil
29	Liaoning	Liaoning	1,050	1,050	13x50, 2x200	coal, oil
30	Qinling	Shaanxi	1,050	1,050	2x125, 4x200	coal
31	Zhenhai	Zhejiang	1,050	1,050	2x125, 4x200	coal, oil
32	Zhangze	Shanxi	1,040	1,040	2x100, 4x210	coal
33	Shentou No.2	Shanxi	1,000	⁽²⁾	2x500	coal
34	Huabei	Anhui	950	750	2x125, 3x200	coal
35	Wujing	Shanghai	950	750	1x100, 1x125, 2x300	coal
36	Huangtai	Shandong	925	925	2x100, 2x300	coal
37	Yuanbaoshan	Inner Mongolia	900	900	1x300, 1x600	coal
38	Jilin	Jilin	850	650	2x100, 2x200	coal, oil
39	Matou	Hebei	850	850	2x100, 3x200	coal
40	Juntiancheng	Tianjin	840	640	3x200	coal, oil

(continued below)

Table 2C.6. Principal Thermal Power Plants 600 MW and Over

1. 1991 (continued)

	Name	Location	Plant Capacity (MW):		Configuration (MW x no units) ^[1]	Fuel
			Design	Existing in 12/30/91		
41	Mudanjiang	Heilongjiang	820	820	4x100, 2x210	coal
42	Shuangyashan	Heilongjiang	820	610	2x200, 2x210	coal
43	Minhang	Shanghai	818	818	2x110, 4x125	coal
44	Jiangyuan	Gansu	800	600	4x200	coal
45	Taizhou	Zhejiang	750	750	6x125	coal
46	Shiheng	Shandong	735	735	2x300	coal
47	Baoshan	Shanghai	700	700	2x350	coal, blast furnace gas
48	Dalian	Liaoning	700	700		coal
49	Fuzhou	Fujian	700	700	2x350	coal
50	Ligang	Jiangsu	700	700 ^[2]	2x350	coal
51	Luohuang	Sichuan	700	700	350x2	coal
52	Nantong	Jiangsu	700	700	2x350	coal
53	Shajiao B	Guangdong	700	700	2x350	coal
54	Shang'an	Hebei	700	700	2x350	coal
55	Yueyang	Hunan	700	700	2x350	coal
56	Chongqing	Sichuan	696	696	2x200	coal
57	Changshan	Jilin	693	693	2x200	coal
58	Qingshan	Hubei	674	674	2x100, 1x200	coal, oil
59	Huangdao	Shandong	670	670	2x125, 2x210	coal
60	Jiangyou	Sichuan	660	660	2x330	coal
61	Qingzhen	Guizhou	658	658	2x200	coal
62	Jiujiang	Jiangxi	650	450	2x125, 2x200	coal
63	Dagang No. 1	Tianjin	640	640	2x320	oil
64	Dagang No. 2	Tianjin	640	640	2x321	coal
65	Shiliquan	Shandong	625	625	5x125	coal
66	Shaoguan	Guangdong	624	624	2x200	coal
67	Daba	Ningxia	600	300	2x300	coal
68	Daqing	Heilongjiang	600	200	3x200	coal
69	Fengzhen	Inner Mongolia	600	400	3x200	coal
70	Gaojing	Beijing	600	600	6x100	coal
71	Huainan	Anhui	600	600	2x120, 2x125	coal
72	Jingmen	Hubei	600	600	2x100, 2x200	coal
73	Jinzhushan	Hunan	600	600	4x125	coal
74	Longkou	Shandong	1,000	1,000	2x100, 4x200	coal
75	Luohe	Anhui	1,200	600	2x300, 2x300 ^[1]	coal
76	Nanjing	Jiangsu	600		2x300	coal
77	Shenzhen	Guangdong	600		2x300	coal
78	Shijingshan	Beijing	1,166	1,166	4x200, 1x200	coal
79	Weifang	Shandong	600		2x300	coal
80	Xindian	Shandong	600	600	2x100, 2x200	oil
81	Yangluo	Hubei	1,200	600	2x300, 2x300 ^[1]	coal
82	Zhujiang	Guangdong	1,200	900	3x300, 1x300 ^[1]	coal

[1] Under construction

[2] No units commissioned.

[3] Cogeneration plant.

Source: EB, China Electric Power Yearbook, 1992.

Table 2C.6. Principal Thermal Power Plants 600 MW and Over

2. 1996

	Name	Location	Plant Capacity (MW):		Configuration (MW x no units)	Steam Condition		Fuel
			Design	Existing		Pressure (Mpa)	Temperature (deg C)	
Fossil Plants in Operation								
1	Shijingshan (cogeneration)	Beijing	1166	1166	200x4	12.75	535/535	coal
2	Dagang	Tianjin	1280	1280	200x4	12.75	535/535	coal
3	Junliangcheng	Tianjin	1000	1000	320x4	16.6	538/538	coal,oil
4	Jixian (Panshan)	Tianjin	1000	1000	200x4	12.75	535/535	coal
5	Douhe	Hebei	1550	1550	500x2	23.54	540/540	coal
					125x2	12.75	538/538	coal
					250x2	16.07	538/538	coal
					200x4	12.75	535/535	coal
6	Xingtai	Hebei	1290	1290	200x6	12.75	535/535	coal
7	Shalingzi	Hebei	1200	1200	300x4	16.67	537/537	coal
8	Qinhuangdao	Hebei	1000	1000	200x2	12.75	535/535	coal
9	Datong No.2	Shanxi	1200	1200	200x6	12.75	535/535	coal
10	Shentou	Shanxi	1300	1300	200x2	12.75	540/540	coal
					200x4	16.2	530/530	coal
11	Shentou No.2	Shanxi	1000	1000	500x4	16.6	535/535	coal
12	Zhiangze	Shanxi	1040	1040	100x2	8.83	535	coal
					210x4	12.75	535/535	coal
13	Fengzhen	Inner Mongolia	1200	1200	200x6	8.83/12.75	535/535	coal
14	Qinghe	Liaoning	1300	1300	100x5	12.75		coal,oil
						12.75		coal
15	Jingzhou	Liaoning	1200	1200	200x4	16.67		coal
16	Liaoning	Liaoning	1050	1050	200x2	12.75		coal
17	Tieling	Liaoning	1200	1200	300x4	16.67	537/537	coal
18	Fularji No.2	Heilongjiang	1200	1200	200x6	12.75	535/535	coal
					200x1		535/535	coal
19	Shidongkou	Shanghai	1200	1200	300x4	16.2	535/535	coal
20	Shidongkou No.2	Shanghai	1200	1200	600x2	24.13	538/538	coal
21	Wujing	Shanghai	1000	1000	100x1	8.83		coal
					125x1	12.75		coal
					300x2	16.67		coal
22	Wangting	Jiangsu	1100	1100	300x2	16.2	535/535	coal,oil
23	Jianbi	Jiangsu	1625	1625	100x3	8.83	535	coal
24	Xuzhou	Jiangsu	1300	1300	125x4	12.75	550/550	coal
					200x4	12.75	535/535	coal
25	Changshu	Jiangsu	1200	1200	300x4	16.67	537/537	coal
26	Zhenhai	Zhejiang	1050	1050	125x2	12.75	550/550	coal
					200x4	12.75	537/537	coal
27	Pingwei	Anhui	1200	1200	600x2	16.67	537/537	coal
28	Huaneng Dezhou	Shandong	1200	1200	300x4	16.67	537/537	coal
29	Longkou	Shandong	1000	1000	100x2	8.83	535	coal
					200x4	12.75	535/535	coal
30	Qinling	Shaanxi	1050	1050	125x2	12.75	550/550	coal
					220x4	12.75	535/535	coal
31	Weihe	Shaanxi	1300	1300	300x4	16.67	537/537	coal
32	Yaomeng	Henan	1200	1200	300x2	16.2	550/550	coal
					300x2	17.75	540/540	coal
33	Jiaozuo	Henan	1224	1224	200x6	12.75	535/535	coal
34	Shajiao A	Guangdong	1200	1200	200x3	12.75	535/535	coal
35	Huangpu	Guangdong	1100	1100	125x4	12.75	550/550	coal,oil
					300x2	16.2	535/535	coal
36	Shajiao C	Guangdong	1980	1980	660x3	16.8	540/540	coal
					300x2 ^[1]	16.67	537/537	coal

(continued below)

Table 2C.6. Principal Thermal Power Plants 600 MW and Over

2. 1996 (continued)

		Plant Capacity (MW):			Units (MW x no units)	Steam condition		Fuel
		Name	Location	Design		Existing	Pressure (Mpa)	
Nuclear Power Plants in Operation								
37	Daya Bay (Dayawan)	Guangdong	1800	1800	900x2	PWR		nuclear
Nuclear Power Plants under Construction								
38	Qinshan	Zhejiang	2900	300	300x2 600x2 ^[1] 700x2 ^[1] 1000x2 ^[1]	PWR PWR PWR PWR		nuclear nuclear nuclear nuclear
39	Ling'ao	Guangdong	2000		1000x2 ^[1]	PWR	537/537	nuclear
Fossil Plants under Consturction								
40	Shang'an	Hebei	1300	700	350x2 300x2 ^[1]	16.6 16.67	538/538 537/537	coal coal
41	Xibaipo	Hebei	1200	600	300x2 300x2 ^[1]	16.67 16.67	537/537 537/537	coal coal
42	Hanfeng	Hebei	1320		600x2 ^[1]	16.8	540/540	coal
43	Yangquan No.2	Shanxi	1200		300x4 ^[1]	16.67	537/537	coal
44	Taiyuan No.1	Shanxi	1312	712	300x2 300x2 ^[1]	16.67 16.67	537/537 537/537	coal coal
45	Yangcheng	Shanxi	2100		350x6 ^[1]	16.6	538/538	coal
46	Suizhong	Liaoning	1600		800x2 ^[1]	23.54	540/540	coal
47	Huaneng Dalian	Liaoning	1400	700	350x4 350x2 ^[1]	16.6 16.6	538/538 538/538	coal coal
48	Shuangliao	Jilin	1200	600	300x2 300x2 ^[1]	16.67 16.67	537/537 537/537	coal coal
49	Harbin No.3	Heilongjiang	1600	100	200x2 600x1 600x1 ^[1]	12.75 16.75 16.75	535/535 537/537 537/537	coal coal coal
50	Mudanjiang No.2	Heilongjiang	1020	820	100x4 210x2 200x1 ^[1]	8.83 12.75 12.75	535 535/535 550/550	coal coal coal
51	Tongliao	Inner Mongolia	1200	800	200x4 200x2 ^[1]	12.75 12.75	535/535 535/535	coal coal
52	Yuanbaoshan	Inner Mongolia	2100	900	300x2 600x1 600x2 ^[1]	17.075 17.75 16.75	540/540 540/540 537/537	coal coal coal
53	Yimin	Inner Mongolia	1000		*500x2	23.54	540/540	coal
54	Daqi	Inner Mongolia	1320	660	330x2 300x2 ^[1]	16.6 16.6	538/538 538/538	coal coal
55	Waigaoqiao	Shanghai	1200	900	300x3 300x1 ^[1]	16.67 16.67	537/537 537/537	coal coal
56	Yangzhou No.2	Shanghai	1200	900	600x3 ^[1]	16.67	537/537	coal
57	Ligang	Jiangsu	1400	700	350x2 350x2 ^[1]	16.6 16.6	538/538 538/538	coal coal
58	Huaneng Nantong	Jiangsu	1400	700	350x2 350x2 ^[1]	16.6 16.6	538/538 538/538	coal coal
59	Beilungang	Zhejiang	3000	1200	600x2 600x2 ^[1]	16.67 16.67	537/537 537/537	coal coal
60	Jiaxing	Zhejiang	1200	600	300x2 300x2 ^[1]	16.67 16.67	537/537 537/537	coal coal

(continued below)

Table 2C.6. Principal Thermal Power Plants 600 MW and Over

2. 1996 (continued)

	Name	Location	Plant Capacity (MW):		Units (MW x no units)	Steam condition		Fuel
			Design	Existing		Pressure (Mpa)	Temperature (deg C)	
61	Taizhou	Zhejiang	1350	750	125x6	12.75	535/535	coal
					300x2 ^[1]	16.67	537/537	coal
62	Luohu	Anhui	1200	600	300x2	16.2	550/550	coal
					300x2 ^[1]	16.67	537/537	coal
63	Shilihe	Shandong	1225	925	125x5	12.75	550/550	coal
					300x1	16.67	537/537	coal
64	Zouxian	Shandong	2400	1200	300x4	16.2	550/550	coal
					600x2 ^[1]	16.67	537/537	coal
65	Shiheng	Shandong	1200	600	300x2	16.67	537/537	coal
					300x2 ^[1]	16.67	537/537	coal
66	Qingdao	Shandong	1011	711	300x2	16.67	537/537	coal
67	Huaneng Fuzhou	Fujian	1400	700	350x2	16.6		coal
						16.6	538/538	coal
68	Hanchuan	Hubei	1200	600	300x2	16.67	537/537	coal
					300x2 ^[1]	16.67	537/537	coal
69	Yangluo	Hubei	1200	600	300x2	16.67	537/537	coal
					300x2 ^[1]	16.67	537/537	coal
70	Xiangfan	Hubei	1200		300x4 ^[1]	16.67	537/537	coal
71	Fengcheng	Jiangxi	1200		300x4 ^[1]	16.67	537/537	coal
72	Zhujiang	Guangdong	1200	900	300x3	16.67	537/537	coal
					300x1 ^[1]	16.67	537/537	coal
73	Jingyuan	Gansu	1400	1000	200x4	12.75	537/537	coal
					300x1	16.7	537/537	coal
					300x1 ^[1]	16.7	537/537	coal
74	Daba	Ningxia	1200	600	300x2	16.7	537/537	coal
					300x2 ^[1]	16.7	537/537	coal

[1] Under construction

Source: EB, China Electric Power Yearbook, 1997.

Table 2C.7. Hydropower Generation and Capacity by Plant Size

1. Hydropower Generation for plants with installed capacities ≥ 500 kW and < 500 kW.

Year	Total Gross Hydro Generation ^[1] (TWh)	Power Plants ≥ 500 kW			Power Plants < 500 kW		
		Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor	Gross Generation (TWh)	Installed Capacity (GW)	Capacity Factor
1980	58.2	53.95	16.87	0.36	4.25	3.45	0.14
1981	65.5	61.36	18.41	0.38	4.14	3.52	0.13
1982	74.4	69.65	19.45	0.41	4.75	3.51	0.15
1983	86.4	81.30	20.67	0.45	5.10	3.49	0.17
1984	86.8	81.87	21.93	0.43	4.93	3.67	0.15
1985	92.4	86.71	22.72	0.44	5.69	3.69	0.18
1986	94.5	89.13	23.93	0.42	5.37	3.61	0.17
1987	100.2	93.74	26.45	0.40	6.46	3.74	0.20
1988	109.2	102.30	28.82	0.40	6.90	3.87	0.20
1989	118.4	111.09	30.42	0.42	7.31	4.17	0.20
1990	126.4	117.95	31.75	0.42	8.45	4.23	0.23
1991	124.9	117.54	33.65	0.40	7.31	4.23	0.20
1992	131.5	123.51	36.69	0.38	7.96	4.22	0.22
1993	151.8	140.78	40.46	0.37	11.02	4.13	0.23
1994	167.4	133.68	38.04	0.36	33.72	11.02	0.25

2. Hydropower Plant Capacity and Generation by Size^[2], 1991

Plant Size (MW)	number	Installed Capacity (GW)	Gross Generation (TWh)	Capacity Factor	Shares of:	
					Installed Capacity (percent)	Annual Generation (percent)
Total	4,546	33.65	117.54	0.40	100%	100%
>250	25	15.93	60.84	0.44	47%	52%
25-250	95	7.62	25.63	0.38	23%	22%
<25	4,426	10.10	31.07	0.35	30%	26%
<i>of which:</i>						
12-25 MW	125	1.84	6.14	0.38	5%	5%
0.5-12 MW	4,095	7.53	24.81	0.38	22%	21%

3. Small Hydropower Generation and Installed Capacity, 1987

Installed Capacity per Station (kW)	Number of Stations	Total Installed Capacity (GW)	1987 Output (TWh)
500 - 25,000	4,567	7.355	22.40
100 - 500	13,417	2.490	4.36
100	45,265	1.155	2.04
Total	63,249	11.000	28.80

[1] Some figures are slightly different than in Table 2A.4 because sources are different.

[2] The tens of thousands of very small hydropower plants under 500 kW are not included in this table. In 1983 such plants accounted for 6% of installed hydropower capacity, and 2% of annual generation. Many small hydropower stations have since been taken out of service, often due to poor maintenance or silting of reservoirs, and the corresponding percentage figures for recent years are probably smaller.

Source: SSB, China Energy Statistical Yearbook various years; Wang, 1988; EB, China Electric Power Yearbook, various years; Ministry of Water Resources, 1990-1992; Energy Research Institute.

Table 2C.8. Principal Hydropower Plants 250 MW and over, 1991

Name of Power Plant	Location		Commissioned	Installed Capacity 12/20/1987 (MW)	Annual Generation (TWh)
	Province	River			
Ertan	Sichuan	Yalongjiang	[1]	3,300	17.00
Gezhouba	Hubei	Changjiang (Yangtze R.)	1981-1989	2,715	14.10
Lijiaxia	Qinghai	Huanghe (Yellow R.)	[1]	2,000	5.90
Baishan	Jilin	Songhuajiang	1983-1991	1,500	2.04
Shuikou	Fujian	Minjiang	1993-1996	1,400	4.95
Longyangxia	Qinghai	Huanghe (Yellow R.)	1987-1989	1,280	5.98
Liujiaxia	Gansu	Huanghe (Yellow R.)	1969-1974	1,225	5.58
Geheyan	Hubei	Qingjiang	1993-1994	1,200	3.04
Guangzhou	Guangdong	Liuxihe tributary		1,200	2.83 gen/
Pumped Storage			[1]		pump
Tianshengqiao I	Guizhou, Guangxi	Nanpanjiang	[1]	1,200	5.38
Wuqiangxi	Hunan	Yuanshui	1994-1996	1,200	5.37
Yantan	Guangxi	Hongshuihe	1992-1995	1,100	5.37
Ankang	Shaanxi	Hanjiang	1990	1,000	2.86
Manwan	Yunnan	Lancangjiang	1993-1995	1,250	5.48
Danjiangkou	Hubei	Hanjiang	1968-1974	900	3.83
Tianshengqiao II	Guizhou, Guangxi	Nanpanjiang	[1]	1,200	5.38
Lubuge	Yunnan, Guizhou	Huangnihe	1989-1991	750	2.75
Gongzui	Sichuan	Daduhe	1972-1978	770	4.12
Xin'anjiang	Zhejiang	Xin'anjiang	1960-1965	662.5	1.86
Baozhusi	Sichuan	Bailongjiang	[1]	640	2.28
Fengman	Jilin	Songhuajiang	1943-1959	639	1.96
Shuifeng ^[2]	Liaoning	Yalujiang	1941-1958	630	3.93
Wujiangdu	Guizhou	Wujiang	1979-1983	630	3.34
Tongjiezi	Sichuan	Daduhe	[1]	600	3.21
Dongfeng	Guizhou	Wujiang	[1]	510	2.42
Dongjiang	Hunan	Laishui	1987-1989	500	1.32
Wan'an	Jiangxi	Ganjiang	1990	500	1.05
Zhaxi	Hunan	Zishui	1962-1964	447.5	2.20
Dahua	Guangxi	Hongshuihe	1983-1985	400	2.05
Fengtian	Hunan	Youshui	1978-1980	400	2.04
Yunfeng ^[2]	Jilin	Yalujiang	1965-1984	400	1.75
Yan'guoxia	Gansu	Huanghe (Yellow R.)	1961-1990	396	2.15
Laohushao ^[2]	Jilin	Yalujiang	1986-	390	1.20
Panjiakou ^[3]	Hebei	Luanhe	1981-	390	0.56
Bikou	Gansu	Bailongjiang	1976-1977	300	1.46
Jinshuitan	Zhejiang	Qiujiang	1987-1989	300	0.49
Shaxikou	Fujian	Shaxi	1987-1990	300	0.96
Fuchunjiang	Zhejiang	Qiantangjiang	1968-1977	297.2	0.93
Xinfengjiang	Guangdong	Xinfengjiang	1960-1969	292.5	1.17
Qingtongxia	Ningxia	Huanghe (Yellow R.)	1967-1978	272	1.04
Sanmenxia	Henan	Huanghe (Yellow R.)	1973-1975	250	1.31

[1] Under construction.

[2] The output of hydropower plants on the Yalu River are shared equally by China and North Korea. Their entire capacity and output are included here in calculating the average capacity factor.

[3] Includes 150 MW conventional and 240 MW pumped storage capacity.

Source: EB, China Electric Power Yearbook, 1992.

Table 2C.9. Small Hydropower Plant Capacity by Size and Province

1. 1995, year-end

Planning Region	Region	By Type of Installed Capacity ^[1]								By Grid Connection ^[1]						
		< 100 kW			≥ 500 kW			Variable capacity plants		State-owned plants			Provincial & regional grids		Local & county grids	
		Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)
North	Beijing	14	14	876	10	26	28,000	2	8,400	20	54	29,910	108	56,657		
	Tianjin				2	7	6,500	2	6,500	2	7	6,500	2	6,500	6	24,490
	Hebei	67	70	2,729	46	116	190,362	25	25,859	94	219	210,055	145	198,451	84	80,738
	Shanxi	60	67	2,671	23	66	85,790	21	33,795	51	126	97,290	36	43,551	18	18,927
	Inner Mongolia	4	4	242	7	24	25,160	11	25,035	17	52	31,225	5	12,860	38	43,536
Northeast	Liaoning	20	23	1,243	22	67	94,560	51	99,846	54	152	111,125	82	91,185	101	136,776
	Jilin	5	8	338	36	107	122,504	32	80,325	55	159	130,384	19	28,675	6	11,350
	Heilongjiang				10	38	45,650	18	50,920	40	134	59,712	49	60,695	68	25,523
East	Jiangsu	14	21	733	2	5	2,800			93	245	31,643	6	4,936	1,400	328,159
	Zhejiang	1,016	1,126	54,844	138	357	457,200	1,283	628,511	325	769	509,226	640	258,402	306	104,832
	Anhui	565	692	19,574	26	60	65,120	444	124,985	81	172	83,699	32	37,642	2,240	1,333,934
	Fujian	2,746	2,877	100,538	227	588	830,090	710	838,753	419	1,001	831,950	70	105,785	950	636,741
	Jiangxi	3,461	3,767	75,499	139	354	446,420	937	544,521	518	1,138	584,833	49	70,915	133	68,364
	Shandong	89	119	5,661	14	44	34,960	142	61,946	136	311	67,710			278	213,455
South-Central	Henan	544	708	25,811	61	162	174,320	105	96,944	135	327	181,996	2	7,760	1,204	722,144
	Hubei	1,211	1,476	53,994	265	652	731,041	890	481,446	421	941	678,327	348	222,014	1,243	1,008,778
	Hunan	3,548	3,731	74,748	226	751	937,214	936	800,465	567	1,592	1,063,341	583	358,905	3,131	1,769,016
	Guangdong	2,025	2,098	88,445	392	1,078	1,162,455	1,858	1,243,647	778	1,872	1,131,144	831	474,558	850	902,800
	Guangxi	1,840	2,040	22,656	213	590	726,715	216	360,472	773	1,647	907,765	12	48,400	124	88,615
	Hainan	51	54	2,657	46	116	112,500	129	98,907	229	456	175,511	25	61,425	2,039	1,787,133
Southwest	Sichuan	2,526	2,654	104,129	430	1,015	1,697,580	1,115	959,595	816	1,853	1,739,986	477	475,939	215	302,507
	Guizhou	523	595	29,113	113	249	425,450	332	332,582	320	685	515,464	36	148,280	466	1,000,638
	Yunnan	2,038	2,295	58,731	290	723	1,094,256	145	298,598	428	993	1,203,936	44	198,054		
	Xizang (Tibet)				29	87	84,950			557	664	151,880			87	38,050
Northwest	Shaanxi	2,218	2,266	49,528	46	115	114,080	38	45,382	156	316	147,229	130	113,772	70	90,962
	Gansu	233	258	12,917	54	142	167,814	19	22,884	144	303	191,763	62	72,030	50	50,640
	Qinghai	30	31	1,483	26	61	61,990	7	13,725	93	205	89,977	24	31,695		
	Ningxia	6	11	631	3	6	5,370			9	17	6,001	9	6,001		
	Xinjiang	178	254	16,819	89	239	323,825	37	155,680	292	671	386,839			188	360,772
Centrally administered					1	2	1,300	1	1,300	1	2	1,300	1	1,300		
National Total		25,032	27,259	806,610	2,986	7,847	10,255,976	9,506	7,441,023	7,624	17,083	11,357,721	3,827	3,196,387	15,295	11,448,880

[1] Individual categories do not sum to consistent totals for numbers of plants and installed capacities.

Source: Ministry of Water Resources, various years.

Table 2C.9. Small Hydropower Plant Capacity by Size and Province

2. 1996, year-end

Planning Region	Region	By Type of Installed Capacity ^[1]								By Grid Connection ^[1]						
		< 100 kW			≥ 500 kW			Variable capacity plants		State-owned plants			Provincial & regional grids		Local & county grids	
		Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)
North	Beijing	14	14	876	10	26	28,000	2	8,400	20	54	5,800	108	56,657		
	Tianjin				1	4	5,800		5,800	1	4	231,690	1	5,800		
	Hebei	57	60	2,657	47	115	211,762	26	66,864	96	219	101,685	151	220,601		
	Shanxi	58	65	2,556	24	68	87,840	20	33,470	59	143	24,675	38	44,051		
	Inner Mongolia	2	2	130	6	22	19,720	8	19,095	14	45	150,736	9	28,580		
Northeast	Liaoning	22	23	1,337	23	72	132,400	51	128,277	60	170	137,494	22	118,545		
	Jilin	5	8	338	37	109	125,104	35	84,045	57	166	96,490	20	33,859		
	Heilongjiang				11	40	81,650	19	86,920	42	137	31,643	52	61,645		
East	Jiangsu	14	21	733	2	5	2,800			93	245	602,330	6	4,936		
	Zhejiang	846	954	51,485	161	416	581,960	1,277	743,202	331	791	130,474	652	327,455		
	Anhui	476	599	17,663	29	67	111,120	452	171,141	85	180	1,170,683	33	77,642		
	Fujian	2,706	2,841	100,056	260	661	1,192,590	753	1,172,566	431	1,033	646,095	113	250,070		
	Jiangxi	3,404	3,689	67,344	147	371	524,780	958	610,925	526	1,152	68,774	49	90,915		
	Shandong	83	104	4,236	13	51	35,600	140	62,863	137	314	192,696				
South-Central	Henan	543	703	25,556	62	167	185,020	105	96,944	136	332	677,727	1	1,600		
	Hubei	1,210	1,474	53,750	268	665	830,681	891	470,504	420	939	1,301,409	415	347,895		
	Hunan	3,133	3,289	68,603	239	803	1,172,539	955	1,000,211	587	1,651	1,287,686	550	431,582		
	Guangdong	1,972	2,042	92,232	415	1,133	1,333,710	1,873	1,362,762	801	1,923	1,025,785	886	569,291		
	Guangxi	1,821	2,019	22,476	234	642	880,610	279	501,237	775	1,690	180,738	18	111,300		
	Hainan	49	52	2,604	47	118	114,500	129	98,912	232	465	1,956,311	150	151,680		
Southwest	Sichuan	2,378	2,512	97,062	456	1,086	1,887,410	1,077	1,090,217	827	1,822	594,524	499	675,509		
	Guizhou	510	579	28,263	121	264	502,780	330	335,102	331	713	1,390,097	41	181,285		
	Yunnan	2,107	2,381	62,831	326	789	1,278,941	143	324,579	454	1,045	159,285	63	264,328		
	Xizang (Tibet)	1	1	55	11	28	17,000		87,992	565	682	195,603				
Northwest	Shaanxi	2,248	2,296	33,624	51	125	160,330	47	37,884	161	332	221,414	153	162,873		
	Gansu	241	270	14,491	58	148	196,529	20	13,725	152	330	129,897	63	83,980		
	Qinghai	26	27	1,253	31	76	102,130	7		97	217	6,001	25	35,445		
	Ningxia	6	11	631	3	6	5,370			9	17	406,766	9	6,001		
	Xinjiang	175	249	16,246	94	248	336,890	39	162,805	292	681	99,100				
Centrally administered				4	15	99,100	4	99,100	4	15		4	99,100			
National Total		24,107	26,285	769,088	3,191	8,340	12,244,666	9,641	8,875,542	7,795	17,507	13,253,518	4,131	4,442,625		

[1] Individual categories do not sum to consistent totals for numbers of plants and installed capacities.

Source: Ministry of Water Resources, various years.

Table 2C.9. Small Hydropower Plant Capacity by Size and Province

3. 1997, year-end

		By Type of Installed Capacity ^[1]								By Grid Connection ^[1]							
Planning Region	Region	< 100 kW			≥ 500 kW			Variable capacity plants		State-owned plants			Provincial & regional grids		Local & county grids		
		Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Number of Sites	Number of Plants	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Number of Sites	Installed Capacity (kW)	Installed Capacity (kW)
North	Beijing	14	14	876	10	26	28,000	2	8,400	20	54	29,910	108	56,657			
	Tianjin				1	4	5,800	1	5,800	1	4	5,800	1	5,800			24,490
	Hebei	49	51	2,388	48	118	218,482	22	64,059	98	225	239,120	153	227,694	6		85,163
	Shanxi	57	64	2,516	25	72	91,040	20	33,470	60	147	104,885	38	44,051			12,635
	Inner Mongolia	2	2	130	10	31	34,780	6	11,345	12	40	21,485	10	27,080	15		59,501
Northeast	Liaoning	23	25	1,587	23	76	135,110	51	130,677	58	167	152,136	21	115,295	100		141,335
	Jilin	4	7	346	39	114	131,004	36	89,025	57	164	141,849	21	38,259	104		10,650
	Heilongjiang				12	43	99,650	20	101,722	43	140	114,490	54	116,585	6		25,523
East	Jiangsu	14	21	733	2	5	2,800			93	245	31,643	6	4,936	68		817,292
	Zhejiang	796	902	50,910	192	485	682,045	1,322	837,442	334	795	636,025	662	369,627	1,592		125,817
	Anhui	467	586	17,810	31	73	116,120	451	186,303	94	197	138,855	35	84,472	338		1,869,156
	Fujian	2,603	2,733	99,487	287	737	1,396,390	801	1,295,458	443	1,064	1,325,444	138	267,141	2,637		713,222
	Jiangxi	3,232	3,502	64,185	152	389	570,960	740	628,571	530	1,168	686,391	62	77,595	1,013		67,752
	Shandong	83	104	4,236	13	51	36,200	140	63,463	137	314	69,375			122		238,980
South-Central	Henan	543	703	25,556	63	172	193,220	106	100,144	138	339	201,616	1	1,600	281		945,783
	Hubei	1,206	1,468	55,992	284	714	946,911	899	600,918	442	1,005	943,398	418	403,185	1,494		1,277,879
	Hunan	3,119	3,275	68,524	251	831	1,240,469	957	1,090,356	594	1,697	1,360,634	551	418,024	1,170		2,016,396
	Guangdong	1,845	1,917	92,226	447	1,230	1,432,365	1,782	1,477,472	836	1,992	1,367,551	918	612,666	3,263		1,004,231
	Guangxi	1,810	2,012	23,678	239	651	894,860	332	553,594	765	1,659	1,019,146	10	105,820	958		
	Hainan	48	51	2,627	48	120	115,500	128	94,902	233	450	177,493	148	146,350			1,708,791
Southwest	Chongqing ^[2]	426	457	23,844	86	215	450,010	159	233,120	149	343	393,497	147	54,881	677		45,030
	Sichuan ^[2]	1,940	2,036	75,612	418	1,001	1,876,440	923	860,212	705	1,575	1,790,040	355	606,204	1,603		374,107
	Guizhou	492	561	27,046	128	280	545,090	343	384,407	337	723	625,402	43	197,555	239		1,173,511
	Yunnan	1,971	2,232	67,020	344	825	1,379,733	156	431,146	473	1,077	1,419,028	64	271,268	503		
	Xizang (Tibet)	367	367	9,730	20	52	30,250			569	692	162,315					565,136
Northwest	Shaanxi	2,170	2,222	33,561	56	141	176,250	50	91,272	169	356	212,053	161	171,753	59		100,901
	Gansu	254	300	18,742	59	158	220,274	24	41,768	154	334	241,389	68	108,621	83		86,960
	Qinghai	27	28	1,353	33	83	125,880	7	13,725	100	226	153,797	27	59,195	54		
	Ningxia	6	11	631	3	6	5,370			9	17	6,001	9	6,001			
	Xinjiang	133	193	12,514	102	282	458,795	41	194,105	292	707	498,809			176		441,788
Centrally administered					4	21	112,330	4	112,330	4	21	112,330	4	101,700			10,630
National Total		23,701	25,844	783,860	3,430	9,006	13,752,128	9,523	9,735,206	7,949	17,937	1,431,907	4,233	4,700,015	16,646		13,942,659

[1] Individual categories do not sum to consistent totals for numbers of plants and installed capacities.

[2] In 1997, Chongqing was reclassified as a provincial-level city, and Sichuan's area was reduced correspondingly.

Source: Ministry of Water Resources, various years.

Figure 2C.1. Coke Production, 1949-2001

Figure 2C.2. Washed Coal and Total Raw Coal Production, 1980-1998

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Table 3B.1. Total Investment by Ownership of Enterprise^[1], 1983-2006

1. Billion Current Yuan

Year	State-Owned	Collective-Owned Units			Individual Investment			Joint Venture & Other	Total	of which: Total Energy Industry Investment	
	Units	Urban	Rural	Subtotal	Urban	Rural	Subtotal			State-Owned	All Investment
1983	95.196	4.565	11.068	15.633	1.672	30.505	32.177		143.006	21.240	
1984	118.518	6.386	17.483	23.869	2.989	37.911	40.900		183.287	27.766	
1985	168.051	12.823	19.923	32.746	5.679	47.843	53.522		254.319	36.641	
1986	197.850	14.639	24.535	39.174	7.456	57.482	64.938		301.962	44.396	
1987	229.799	18.130	36.571	54.701	10.051	69.535	79.586		364.086	54.261	
1988	276.276	25.497	45.674	71.171	15.685	86.523	102.208		449.655	64.502	
1989	253.548	18.563	38.436	56.999	14.023	89.203	103.226		413.773	70.564	
1990	291.864	16.338	36.610	52.948	12.470	87.647	100.117		444.929	82.388	
1991	362.811	20.383	49.398	69.781	14.032	104.256	118.288		550.880	95.675	
1992	527.364	36.449	99.486	135.935	21.647	100.552	122.199		785.498	116.410	
1993	765.797	60.015	163.119	223.134	33.850	113.773	147.623	109.232	1,245.786	149.767	
1994	961.500	77.030	198.860	275.890	45.140	151.920	197.060	269.760	1,704.210	175.413	
1995	1,089.820	92.170	236.770	328.940	55.230	200.790	256.020	327.150	2,001.930	202.528	
1996	1,200.620	84.920	280.230	365.150	66.720	254.400	321.120	404.470	2,291.360	241.926	
1997	1,309.170	79.520	305.560	385.090	73.820	269.120	342.940	456.910	2,494.110	291.400	348.141
1998	1,536.930	95.890	323.330	419.220	106.290	268.150	374.440	510.030	2,840.620	286.209	364.295
1999	1,594.776	99.542	334.313	433.855	141.611	277.959	419.570	537.270	2,985.471	296.321	
2000	1,650.444	100.983	379.162	480.145	180.510	290.426	470.936	690.248	3,291.773	283.959	398.361
2001	1,760.697	104.285	423.572	527.857	245.301	297.656	542.957	889.838	3,721.349	262.160	
2002	1,887.735	109.952	488.791	598.743	339.596	312.323	651.919	1,211.594	4,349.991	262.617	423.754
2003	2,166.100	145.550	655.400	800.950	451.910	320.100	772.010	1,817.600	5,556.660	287.671	803.665
2004	2,502.760	187.910	808.660	996.570	651.790	336.270	988.060	2,560.350	7,047.740	364.301	1,114.781
2005	2,966.690	223.170	973.790	1,196.960	995.000	394.060	1,389.060	3,324.650	8,877.360	476.073	1,496.088
	State-Owned	Collective-Owned	Cooperative	Joint	Limited Liability	Share Holding	Private	Self-employed and Others	Total	of which : Energy Industry	
										Mining	Electricity, Gas & Water
2006 ^[2]	3,296.340	3,604.100	75.720	51.970	2,626.550	817.420	1,926.720	758.860	10,999.820	467.840	858.570

[1] Unlike most of the tables in Chapter 3, which mainly refer to investment in state-owned units, this table has data on collective and individual investment as well. Breakdowns of investment in units owned by collectives and individuals are not as readily available as for state-owned units.

[2] Categories for NBS investment data were re-organized in 2006.

Source: NBS, China Statistical yearbook, various years; NBS, China Fixed Assets Investment Statistical Yearbook, various years; SDPC et al., 2002; NBS, China Energy Statistical Yearbook, various years.

Table 3B.1. Total Investment by Ownership of Enterprise^[1], 1983-2006 (continued)

2. Billion Constant 2000 Yuan^[3]

Year	State-Owned	Collective-Owned Units			Individual Investment			Joint Venture & Other	Total	of which: Total Energy Industry Investment	
	Units	Urban	Rural	Subtotal	Urban	Rural	Subtotal			State-Owned	All Investment
1983	207.291	9.940	24.101	34.041	3.641	66.425	70.066	0.000	311.397	46.250	
1984	252.528	13.607	37.251	50.858	6.369	80.778	87.146	0.000	390.533	59.162	
1985	342.256	26.116	40.576	66.691	11.566	97.438	109.004	0.000	517.951	74.624	
1986	384.222	28.429	47.647	76.075	14.479	111.629	126.109	0.000	586.406	86.216	
1987	436.995	34.477	69.545	104.022	19.113	132.231	151.344	0.000	692.361	103.185	
1988	480.717	44.364	79.472	123.837	27.292	150.549	177.841	0.000	782.394	112.233	
1989	412.958	30.234	62.601	92.835	22.839	145.286	168.126	0.000	673.919	114.929	
1990	464.523	26.003	58.267	84.271	19.847	139.497	159.343	0.000	708.136	131.126	
1991	560.184	31.472	76.271	107.743	21.666	160.972	182.638	0.000	850.564	147.723	
1992	775.752	53.616	146.344	199.960	31.843	147.912	179.755	0.000	1,155.467	171.239	
1993	980.607	76.849	208.875	285.724	43.345	145.687	189.032	139.872	1,595.235	191.777	
1994	1,066.322	85.428	220.540	305.967	50.061	168.482	218.543	299.169	1,890.001	194.536	
1995	1,076.105	91.010	233.790	324.800	54.535	198.263	252.798	323.033	1,976.737	199.979	
1996	1,130.137	79.935	263.779	343.714	62.803	239.465	302.269	380.726	2,156.845	227.724	
1997	1,226.990	74.528	286.379	360.917	69.186	252.227	321.413	428.229	2,337.548	273.108	326.287
1998	1,518.053	94.712	319.359	414.071	104.985	264.857	369.841	503.766	2,805.732	282.694	359.821
1999	1,621.591	101.216	339.934	441.150	143.992	282.633	426.625	546.304	3,035.669	301.303	
2000	1,650.444	100.983	379.162	480.145	180.510	290.426	470.936	690.248	3,291.773	283.959	398.361
2001	1,757.541	104.098	422.813	526.911	244.861	297.122	541.984	888.243	3,714.679	261.690	
2002	1,904.052	110.902	493.016	603.918	342.531	315.023	657.554	1,222.067	4,387.591	264.887	427.417
2003	2,126.514	142.890	643.422	786.313	443.651	314.250	757.901	1,784.383	5,455.111	282.414	788.978
2004	2,308.513	173.326	745.897	919.223	601.203	310.171	911.374	2,361.633	6,500.743	336.026	1,028.259
2005	2,577.981	193.929	846.200	1,040.129	864.631	342.429	1,207.059	2,889.040	7,714.209	413.696	1,300.064
2006 ^[2]	State-Owned	Collective-Owned	Cooperative	Joint	Limited Liability	Share Holding	Private	Self-employed and Others	Total	of which : Energy Industry	
										Mining	Electricity, Gas & Water
	2,734.714	2,990.038	62.819	43.115	2,179.042	678.149	1,598.448	629.566	9,125.685	388.130	712.288

[1] Unlike most of the tables in Chapter 3, which mainly refer to investment in state-owned units, this table has data on collective and individual investment as well. Breakdowns of investment in units owned by collectives and individuals are not as readily available as for state-owned units.

[2] Categories for NBS investment data were re-organized in 2006.

[3] Deflated using the GDP deflators presented in Table 3B.10(b).

Source: NBS, China Statistical yearbook, various years; NBS, China Fixed Assets Investment Statistical Yearbook, various years; SDPC et al., 2002.

Table 3B.1. Total Investment by Ownership of Enterprise^[1], 1983-2006 (continued)

3. Shares of Total

Year	State-Owned	Collective-Owned Units			Individual Investment			Joint Venture & Other	Total	of which: Total Energy Industry Investment	
	Units	Urban	Rural	Subtotal	Urban	Rural	Subtotal			State-Owned	All Investment
1983	66.6%	3.2%	7.7%	10.9%	1.2%	21.3%	22.5%		100.0%	14.9%	
1984	64.7%	3.5%	9.5%	13.0%	1.6%	20.7%	22.3%		100.0%	15.1%	
1985	66.1%	5.0%	7.8%	12.9%	2.2%	18.8%	21.0%		100.0%	14.4%	
1986	65.5%	4.8%	8.1%	13.0%	2.5%	19.0%	21.5%		100.0%	14.7%	
1987	63.1%	5.0%	10.0%	15.0%	2.8%	19.1%	21.9%		100.0%	14.9%	
1988	61.4%	5.7%	10.2%	15.8%	3.5%	19.2%	22.7%		100.0%	14.3%	
1989	61.3%	4.5%	9.3%	13.8%	3.4%	21.6%	24.9%		100.0%	17.1%	
1990	65.6%	3.7%	8.2%	11.9%	2.8%	19.7%	22.5%		100.0%	18.5%	
1991	65.9%	3.7%	9.0%	12.7%	2.5%	18.9%	21.5%		100.0%	17.4%	
1992	67.1%	4.6%	12.7%	17.3%	2.8%	12.8%	15.6%		100.0%	14.8%	
1993	61.5%	4.8%	13.1%	17.9%	2.7%	9.1%	11.8%	8.8%	100.0%	12.0%	
1994	56.4%	4.5%	11.7%	16.2%	2.6%	8.9%	11.6%	15.8%	100.0%	10.3%	
1995	54.4%	4.6%	11.8%	16.4%	2.8%	10.0%	12.8%	16.3%	100.0%	10.1%	
1996	52.4%	3.7%	12.2%	15.9%	2.9%	11.1%	14.0%	17.7%	100.0%	10.6%	
1997	52.5%	3.2%	12.3%	15.4%	3.0%	10.8%	13.7%	18.3%	100.0%	11.7%	14.0%
1998	54.1%	3.4%	11.4%	14.8%	3.7%	9.4%	13.2%	18.0%	100.0%	10.1%	12.8%
1999	53.4%	3.3%	11.2%	14.5%	4.7%	9.3%	14.1%	18.0%	100.0%	9.9%	
2000	50.1%	3.1%	11.5%	14.6%	5.5%	8.8%	14.3%	21.0%	100.0%	8.6%	12.1%
2001	47.3%	2.8%	11.4%	14.2%	6.6%	8.0%	14.6%	23.9%	100.0%	7.0%	
2002	43.4%	2.5%	11.2%	13.8%	7.8%	7.2%	15.0%	27.9%	100.0%	6.0%	9.7%
2003	39.0%	2.6%	11.8%	14.4%	8.1%	5.8%	13.9%	32.7%	100.0%	5.2%	14.5%
2004	35.5%	2.7%	11.5%	14.1%	9.2%	4.8%	14.0%	36.3%	100.0%	5.2%	15.8%
2005	33.4%	2.5%	11.0%	13.5%	11.2%	4.4%	15.6%	37.5%	100.0%	5.4%	16.9%

	State-Owned	Collective-Owned	Cooperative	Joint	Limited Liability	Share Holding	Private	Self-employed and Others	Total	of which : Energy Industry	
										Mining	Electricity, Gas & Water
2006 ^[2]	30.0%	32.8%	0.7%	0.5%	23.9%	7.4%	17.5%	6.9%	100.0%	4.3%	7.8%

[1] Unlike most of the tables in Chapter 3, which mainly refer to investment in state-owned units, this table has data on collective and individual investment as well. Breakdowns of investment in units owned by collectives and individuals are not as readily available as for state-owned units.

[2] Categories for NBS investment data were re-organized in 2006.

Source: NBS, China Statistical yearbook, various years; NBS, China Fixed Assets Investment Statistical Yearbook, various years; SDPC et al., 2002; NBS, China Energy Statistical Yearbook, various years.

Table 3B.2. Total Energy Industry Investment by Ownership and by Subsector, 1997-2005

1. 1997, million current yuan

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	36,396	69,739	25,789	5,979	153,497	291,400
Urban Collective	330	2	300	24	556	1,211
Joint Venture	20		9	4	592	625
Shareholding Corporations	1,523	97	2,281	100	27,739	31,739
Foreign-Invested	1		1,283	752	17,041	19,076
Hong Kong, Macao, & Taiwan-Invested			29	55	4,006	4,090
Total	38,270	69,837	29,690	6,913	203,431	348,141

2. 1998, million current yuan

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	26,278	72,630	19,982	7,204	160,115	286,210
Urban Collective	451	3	382	66	853	1,755
Joint Venture	55			1	94	150
Shareholding Corporations	2,364	130	2,983	381	41,780	47,639
Foreign-Invested			824	933	15,596	17,353
Hong Kong, Macao, & Taiwan-Invested	113		439	29	10,607	11,188
Total	29,261	72,763	24,610	8,614	229,046	364,295

3. 2000, million current yuan^[1]

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	19,890	35,555	9,481	6,003	213,030	283,958
Urban Collective	251	10	601	48	1,117	2,027
Joint Venture	8		243	6	162	420
Shareholding Corporations	834	42,942	5,794	887	41,772	92,229
Foreign-Invested	7		507	212	13,966	14,692
Hong Kong, Macao, & Taiwan-Invested	27	435	374	47	4,151	5,035
Total	21,018	78,941	17,000	7,204	274,198	398,361

4. 2002, million current yuan

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	23,317	15,757	9,316	6,009	208,218	262,616
Urban Collective	452	11	297	50	1,643	2,453
Joint Venture	70		21	3	284	378
Shareholding Corporations	5,854	60,863	9,834	2,022	62,058	140,631
Foreign-Invested	35		3,401	262	4,210	7,908
Hong Kong, Macao, & Taiwan-Invested	47	4,862	193	281	4,384	9,768
Total	29,775	81,492	23,062	8,628	280,797	423,754

5. 2003, million current yuan^[2]

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	31,005	23,637	8,974	8,225	215,803	287,644

6. 2004, million current yuan^[2]

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	41,988	30,073	18,766	9,495	263,979	364,301

7. 2005, million current yuan^[2]

Ownership Type	Coal Extraction	Oil & Natural Gas Extraction	Oil Refining & Coking	Coal Gas	Electricity, Steam & Hot Water	Total
State-Owned	62,362	27,878	29,397	11,289	345,147	476,073

[1] Detailed breakouts for 1999 and 2001 have not been published.

[2] Data of energy industry investment by urban collective, joint venture, shareholding corporations, foreign-invested and Hong Kong, Macao, & Taiwan invested is not available from 2003.

Source: NBS, China Fixed Assets Investment Statistical Yearbook, various years; SDPC *et al.*, 2002; NBS, China Energy Statistical Yearbook, various years.

Figure 3B.1 Capital Construction Investment, 1953-2003

N.B. After 2003, data on capital construction investment are not available.

Figure 3B.2. Structure of Capital Construction Investment, 1953-2003

N.B. After 2003, data on capital construction investment are not available.

Table 3B.3. Investment in State-Owned Units: Total and Capital Construction Compared to Energy Industry Investment, 1953-2003 ^[1]

1. Billion Current Yuan

Year	Total Investment	Total Energy Industry Investment ^[2]	Total Capital Construction Investment	Industry Capital Construction Investment ^[3]	Energy Industry Capital Construction Investment ^[3]
1953	9.16		9.04	2.83	0.70
1954	10.27		9.91	3.84	1.02
1955	10.52		10.04	4.30	1.36
1956	16.08		15.53	6.82	1.97
1957	15.12		14.33	7.24	2.25
1958	27.91		26.90	17.30	4.13
1959	36.80		34.97	20.89	5.78
1960	41.66		38.87	22.96	6.34
1961	15.61		12.74	7.68	2.75
1962	8.73		7.13	4.01	1.57
1963	11.67		9.82	4.92	1.65
1964	16.59		14.41	7.21	2.17
1965	21.69		17.96	8.90	2.56
1966	25.48		20.94	9.50	2.71
1967	18.77		14.02	10.20	2.91
1968	15.16		11.31	10.80	3.12
1969	24.69		20.08	11.50	3.23
1970	36.81		31.26	12.20	3.43
1971	41.73		34.08	14.80	4.43
1972	41.28		32.80	17.40	5.43
1973	43.81		33.81	20.00	6.43
1974	46.32		34.77	22.60	7.53
1975	54.49		40.93	23.10	7.15
1976	52.39		37.64	20.87	6.99
1977	54.83		38.24	21.74	7.87
1978	66.87		50.10	27.32	11.47
1979	69.94		52.35	25.69	11.10
1980	74.59		55.89	27.56	11.57
1981	66.75	14.19	44.29	21.60	9.46
1982	84.53	17.41	55.55	26.06	10.22
1983	95.20	21.34	59.41	28.23	12.76
1984	118.52	27.90	74.32	34.16	16.60
1985	168.05	36.83	107.44	44.65	20.36
1986	197.85	44.77	117.61	53.16	26.71
1987	229.80	55.00	134.31	68.28	34.01
1988	276.28	65.27	157.43	79.61	41.16
1989	253.55	70.56	155.17	82.25	44.64
1990	291.86	84.67	170.38	95.26	55.83
1991	362.28	95.68	211.58	114.72	64.62
1992	527.36	116.41	301.27	145.83	80.36
1993	765.80	149.77	461.55	200.45	109.28
1994	961.50	175.41	643.67	276.17	149.08
1995	1089.82	202.53	740.36	323.63	165.01
1996	1200.62	241.82	857.08	372.68	198.08
1997	1309.17	292.40	991.70	411.95	256.94
1998	1536.93	286.21	1191.64	416.92	263.31
1999	1594.78	296.32	1245.53	385.01	256.43
2000	1650.44	283.96	1342.73	424.43	289.26
2001	1760.70	262.16	1482.01	434.99	271.02
2002	1887.74	262.62	1766.66	523.64	301.71
2003	2166.10	287.67	2290.86	749.82	434.18

[1] Figures are for state-owned units unless otherwise noted. State investment was 67% of all fixed assets investment in 1983, 62% in 1993, and 43% in 2002 (Table 3B.2). Total investment refers to the National Bureau of Statistics' category of "fixed assets investment," which is the sum of "capital construction," "technical updating and transformation," and "other" investments. Capital construction investments are intended primarily for building new production capacity, while technical updating and transformation funds are for repair and retrofitting of existing capacity. Most of the "other" investment in the energy sector is for further development of existing oilfields. All investment figures include some funds intended for "nonproductive" uses, e.g. worker housing, schools, etc.

[2] Energy industry fixed assets investment figures are for state- and urban collective-owned units, except 1989 and later years, which are for state-owned units only.

[3] For 1966-1970 and 1971-1974 only total capital construction investment figures are available (54.151 billion current yuan and 74.96 billion current yuan respectively). Here we have approximated the division of investment funds among the years in these two periods by linear extrapolation, using the investment totals as control sums and reported investment in 1965 and 1975 as the endpoints. "Industry capital construction investment" is part of "total capital construction investment," and "energy industry capital construction investment" is part of "industry capital construction investment."

Source: Development Research Center, Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.3. Investment in State-Owned Units: Total and Capital Construction Compared to Energy Industry Investment, 1953-2003 ^[1]
(continued)

2. Billion Constant 2000 Yuan^[4]

Year	Total Investment	Total Energy Industry Investment ^[2]	Total Capital Construction Investment	Industry Capital Construction Investment ^[3]	Energy Industry Capital Construction Investment ^[3]
1953	37.86	0.00	37.38	11.71	2.89
1954	45.32	0.00	43.72	16.93	4.51
1955	47.96	0.00	45.76	19.58	6.18
1956	80.20	0.00	77.45	34.02	9.84
1957	69.42	0.00	65.80	33.24	10.34
1958	128.82	0.00	124.16	79.85	19.05
1959	169.01	0.00	160.61	95.92	26.55
1960	192.66	0.00	179.75	106.17	29.34
1961	68.98	0.00	56.31	33.93	12.13
1962	37.18	0.00	30.35	17.07	6.68
1963	50.25	0.00	42.27	21.17	7.11
1964	71.13	0.00	61.79	30.90	9.29
1965	99.02	0.00	82.00	40.61	11.70
1966	121.45	0.00	99.82	45.28	12.90
1967	90.46	0.00	67.55	49.16	14.04
1968	74.73	0.00	55.73	53.24	15.37
1969	126.32	0.00	102.75	58.84	16.50
1970	194.31	0.00	164.99	64.40	18.11
1971	221.29	0.00	180.74	78.48	23.49
1972	220.69	0.00	175.34	93.02	29.02
1973	235.13	0.00	181.46	107.34	34.50
1974	248.63	0.00	186.64	121.31	40.41
1975	296.14	0.00	222.46	125.56	38.84
1976	285.58	0.00	205.20	113.78	38.09
1977	300.44	0.00	209.52	119.10	43.12
1978	364.41	0.00	273.02	148.86	62.51
1979	376.25	0.00	281.61	138.17	59.70
1980	401.63	0.00	300.93	148.40	62.27
1981	336.98	71.66	223.60	109.05	47.78
1982	409.16	84.26	268.90	126.14	49.48
1983	435.22	97.56	271.62	129.05	58.33
1984	500.49	117.84	313.83	144.25	70.08
1985	642.78	140.89	410.94	170.78	77.88
1986	676.36	153.04	402.06	181.74	91.30
1987	691.89	165.59	404.39	205.58	102.39
1988	692.60	163.63	394.67	199.57	103.18
1989	546.09	151.97	334.21	177.14	96.14
1990	579.72	168.18	338.42	189.21	110.89
1991	657.16	173.55	383.79	208.10	117.21
1992	829.66	183.14	473.97	229.43	126.43
1993	951.64	186.11	573.56	249.09	135.80
1994	1082.28	197.44	724.53	310.86	167.80
1995	1158.38	215.27	786.93	343.99	175.39
1996	1227.06	247.15	875.96	380.89	202.44
1997	1315.64	293.85	996.60	413.99	258.21
1998	1547.62	288.20	1199.93	419.82	265.14
1999	1612.32	299.58	1259.23	389.24	259.25
2000	1650.44	283.96	1342.73	424.43	289.26
2001	1753.68	261.12	1476.11	433.25	269.94
2002	1876.46	261.05	1756.11	520.51	299.91
2003	2126.51	282.41	2248.99	736.12	426.25

[1] Figures are for state-owned units unless otherwise noted. State investment was 67% of all fixed assets investment in 1983, 62% in 1993, and 43% in 2002 (Table 3B.2). Total investment refers to the National Bureau of Statistics' category of "fixed assets investment," which is the sum of "capital construction," "technical updating and transformation," and "other" investments. Capital construction investments are intended primarily for building new production capacity, while technical updating and transformation funds are for repair and retrofitting of existing capacity. Most of the "other" investment in the energy sector is for further development of existing oilfields. All investment figures include some funds intended for "nonproductive" uses, e.g. worker housing, schools, etc.

[2] Energy industry fixed assets investment figures are for state- and urban collective-owned units, except 1989 and later years, which are for state-owned units only.

[3] For 1966-1970 and 1971-1974 only total capital construction investment figures are available (54.151 billion current yuan and 74.96 billion current yuan respectively). Here we have approximated the division of investment funds among the years in these two periods by linear extrapolation, using the investment totals as control sums and reported investment in 1965 and 1975 as the endpoints. "Industry capital construction investment" is part of "total capital construction investment," and "energy industry capital construction investment" is part of "industry capital construction investment."

[4] Data before 2003 is deflated using the investment goods deflators presented in Table 3B.13(a). Data in 2003 is calculated using deflators presented in Table 3B.13(b). Deflators in Table 3B.13(b) is generated based on the data of GDP that is contributed by Industry only.

Source: Development Research Center, Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.3. Investment in State-Owned Units: Total and Capital Construction Compared to Energy Industry Investment (1953-2003) ^[1]
(continued)

3. Annual Growth

Year	Total Investment	Total Energy Industry Investment ^[2]	Total Capital Construction Investment	Industry Capital Construction Investment ^[3]	Energy Industry Capital Construction Investment ^[3]
1953					
1954	20%		17%	45%	56%
1955	6%		5%	16%	37%
1956	67%		69%	74%	59%
1957	-13%		-15%	-2%	5%
1958	86%		89%	140%	84%
1959	31%		29%	20%	39%
1960	14%		12%	11%	10%
1961	-64%		-69%	-68%	-59%
1962	-46%		-46%	-50%	-45%
1963	35%		39%	24%	6%
1964	42%		46%	46%	31%
1965	39%		33%	31%	26%
1966	23%		22%	11%	10%
1967	-26%		-32%	9%	9%
1968	-17%		-18%	8%	9%
1969	69%		84%	11%	10%
1970	54%		61%	9%	9%
1971	14%		10%	22%	44%
1972	0%		-3%	19%	15%
1973	7%		3%	15%	13%
1974	6%		3%	13%	6%
1975	19%		19%	4%	6%
1976	-4%		-8%	-9%	-2%
1977	5%		2%	5%	13%
1978	21%		30%	25%	45%
1979	3%		3%	-7%	-4%
1980	7%		7%	7%	4%
1981	-16%		-26%	-27%	-23%
1982	21%	18%	20%	16%	4%
1983	6%	16%	1%	2%	18%
1984	15%	21%	16%	12%	20%
1985	28%	20%	31%	18%	12%
1986	5%	9%	-2%	6%	16%
1987	2%	8%	1%	13%	12%
1988	0%	-1%	-2%	-3%	0%
1989	-21%	-7%	-15%	-11%	-6%
1990	6%	11%	1%	7%	15%
1991	13%	3%	13%	10%	6%
1992	26%	6%	23%	10%	8%
1993	15%	2%	21%	9%	8%
1994	14%	6%	26%	25%	23%
1995	7%	9%	9%	11%	5%
1996	6%	15%	11%	11%	15%
1997	7%	19%	14%	9%	28%
1998	18%	-2%	20%	1%	3%
1999	4%	4%	5%	-7%	-2%
2000	2%	-5%	7%	9%	12%
2001	6%	-8%	10%	2%	-7%
2002	7%	0%	19%	20%	11%
2003	13%	8%	28%	41%	42%

[1] Figures are for state-owned units unless otherwise noted. State investment was 67% of all fixed assets investment in 1983, 62% in 1993, and 43% in 2002 (Table 3B.2). Total investment refers to the National Bureau of Statistics' category of "fixed assets investment," which is the sum of "capital construction," "technical updating and transformation," and "other" investments. Capital construction investments are intended primarily for building new production capacity, while technical updating and transformation funds are for repair and retrofitting of existing capacity. Most of the "other" investment in the energy sector is for further development of existing oilfields. All investment figures include some funds intended for "nonproductive" uses, e.g. worker housing, schools, etc.

[2] Energy industry fixed assets investment figures are for state- and urban collective-owned units, except 1989 and later years, which are for state-owned units only.

[3] For 1966-1970 and 1971-1974 only total capital construction investment figures are available (54.151 billion current yuan and 74.96 billion current yuan respectively). Here we have approximated the division of investment funds among the years in these two periods by linear extrapolation, using the investment totals as control sums and reported investment in 1965 and 1975 as the endpoints. "Industry capital construction investment" is part of "total capital construction investment," and "energy industry capital construction investment" is part of "industry capital construction investment."

Source: Development Research Center, Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.3. Investment in State-Owned Units: Total and Capital Construction Compared to Energy Industry Investment, 1953-2003 ^[1]
(continued)

4. Shares of Total Investment

Year	Total Investment	Total Energy Industry Investment ^[2]	Total Capital Construction Investment	Industry Capital Construction Investment ^[3]	Energy Industry Capital Construction Investment ^[3]
1953	100%		99%	31%	8%
1954	100%		96%	37%	10%
1955	100%		95%	41%	13%
1956	100%		97%	42%	12%
1957	100%		95%	48%	15%
1958	100%		96%	62%	15%
1959	100%		95%	57%	16%
1960	100%		93%	55%	15%
1961	100%		82%	49%	18%
1962	100%		82%	46%	18%
1963	100%		84%	42%	14%
1964	100%		87%	43%	13%
1965	100%		83%	41%	12%
1966	100%		82%	37%	11%
1967	100%		75%	54%	16%
1968	100%		75%	71%	21%
1969	100%		81%	47%	13%
1970	100%		85%	33%	9%
1971	100%		82%	35%	11%
1972	100%		79%	42%	13%
1973	100%		77%	46%	15%
1974	100%		75%	49%	16%
1975	100%		75%	42%	13%
1976	100%		72%	40%	13%
1977	100%		70%	40%	14%
1978	100%		75%	41%	17%
1979	100%		75%	37%	16%
1980	100%		75%	37%	16%
1981	100%	21%	66%	32%	14%
1982	100%	21%	66%	31%	12%
1983	100%	22%	62%	30%	13%
1984	100%	24%	63%	29%	14%
1985	100%	22%	64%	27%	12%
1986	100%	23%	59%	27%	13%
1987	100%	24%	58%	30%	15%
1988	100%	24%	57%	29%	15%
1989	100%	28%	61%	32%	18%
1990	100%	29%	58%	33%	19%
1991	100%	26%	58%	32%	18%
1992	100%	22%	57%	28%	15%
1993	100%	20%	60%	26%	14%
1994	100%	18%	67%	29%	16%
1995	100%	19%	68%	30%	15%
1996	100%	20%	71%	31%	16%
1997	100%	22%	76%	31%	20%
1998	100%	19%	78%	27%	17%
1999	100%	19%	78%	24%	16%
2000	100%	17%	81%	26%	18%
2001	100%	15%	84%	25%	15%
2002	100%	14%	94%	28%	16%
2003	100%	13%	106%	35%	20%

[1] Figures are for state-owned units unless otherwise noted. State investment was 67% of all fixed assets investment in 1983, 62% in 1993, and 43% in 2002 (Table 3B.2). Total investment refers to the National Bureau of Statistics' category of "fixed assets investment," which is the sum of "capital construction," "technical updating and transformation," and "other" investments. Capital construction investments are intended primarily for building new production capacity, while technical updating and transformation funds are for repair and retrofitting of existing capacity. Most of the "other" investment in the energy sector is for further development of existing oilfields. All investment figures include some funds intended for "nonproductive" uses, e.g. worker housing, schools, etc.

[2] Energy industry fixed assets investment figures are for state- and urban collective-owned units, except 1989 and later years, which are for state-owned units only.

[3] For 1966-1970 and 1971-1974 only total capital construction investment figures are available (54.151 billion current yuan and 74.96 billion current yuan respectively). Here we have approximated the division of investment funds among the years in these two periods by linear extrapolation, using the investment totals as control sums and reported investment in 1965 and 1975 as the endpoints. "Industry capital construction investment" is part of "total capital construction investment," and "energy industry capital construction investment" is part of "industry capital construction investment."

Source: Development Research Center, Almanac of China's Economy, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.4. Investment in Fixed Assets of State-Owned Units in the Energy Industry^[1], 1981-2006

1. Billion Current Yuan

Year	Coal Extraction	Coking, Coal Gas & Coal Products ^[3]	Oil & Natural Gas Extraction	Oil Refining & Coking ^[3]	Electricity Generation & Hot Water Supply	Energy Industry Subtotal ^[4]	Total Industry Investment ^[4]
1981	3.606	0.359	4.686	0.718	4.755	14.124	38.043
1982	4.818	0.116	6.199	0.703	5.516	17.352	46.743
1983	6.140	0.145	7.424	0.643	6.888	21.240	54.662
1984	8.109	0.374	9.460	0.982	8.841	27.766	65.353
1985	8.716	1.072	13.029	1.203	12.621	36.641	91.365
1986	9.254	1.600	13.782	1.623	18.137	44.396	115.982
1987	9.865	1.627	16.621	2.594	23.554	54.261	140.715
1988	10.668	1.910	19.689	4.095	28.140	64.502	172.653
1989	12.230	1.993	23.294	3.474	29.573	70.564	159.701
1990	15.613	3.284	22.599	4.243	36.649	82.388	174.758
1991	17.707	3.577	27.343	6.029	41.019	95.675	211.321
1992	19.420	3.995	32.675	6.699	53.621	116.410	275.947
1993	22.780	4.471	38.893	10.267	73.356	149.767	357.157
1994	23.731	3.814	45.791	14.187	87.890	175.413	394.825
1995	28.226	3.899	49.968	16.164	104.271	202.528	452.620
1996	31.944	5.525	56.546	18.605	129.306	241.926	489.128
1997	36.396	5.979	69.739	25.789	153.497	291.400	495.810
1998	26.278	7.204	72.630	19.982	160.115	286.209	470.330
1999	21.322	6.475	70.632	14.576	183.316	296.321	459.106
2000	19.890	6.003	35.555	9.481	213.030	283.959	457.868
2001	19.922	5.839	37.519	12.736	186.144	262.160	451.627
2002	23.317	6.009	15.757	9.316	208.218	262.617	466.713
2003	31.005	8.225	23.637	8.974	215.803	287.644	536.065
2004	41.988	9.495	30.073	18.766	263.979	364.301	
2005	62.362	11.289	27.878	29.933	345.147	476.609	
2006	75.944	12.894	38.651	36.930	404.240	568.659	

[1] Figures before 1989 include investment in state- and urban collective-owned units. 1989 and later figures are for state-owned units only. (For comparison, 1988 investment in state-owned units in the industrial sector was 64.3 billion yuan.) Sum of sectoral figures is slightly less than total figure because only one item in the "Other Investment" category (oilfield maintenance and development projects, amounting to 13.5 billion yuan) was available. Investment includes capital construction, technical updating and transformation, and other investment, the former representing the majority of investment. Sectoral breakouts of total total fixed investment in recent years have come to diverge widely from sums of investment subcategories (capital construction, and technical updating and innovation investment), and appear to have much less comprehensive coverage than previously, in part due to restructuring of ownership (See Table 3B.2).

[3] Official statistics for 1995 and later years report coking and oil refining investment in a single category. Coking investment is small compared to oil refining.

[4] All years include investment in state-owned units only; total state-owned industry investment data were discontinued in 2004.

Source: NBS, China Statistical Yearbook, various years; NBS, China Energy Statistical Yearbook, various years; NBS, Statistical Yearbook of China's Industrial Economy, various years; NBS, China Fixed Assets Investment Statistical Yearbook, various years; NBS databases; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.4. Total Energy Industry Investment in State-Owned Units by Subsector^[1], 1981-2006 (continued)

2. Billion Constant 2000 Yuan^[2]

Year	Coal Extraction	Coking, Coal Gas & Coal Products ^[3]	Oil & Natural Gas Extraction	Oil Refining & Coking ^[3]	Electricity Generation & Supply	Energy Industry Subtotal ^[4]	Total Industry Investment ^[4]
1981	7.846	0.781	10.196	1.562	10.346	30.731	82.774
1982	10.505	0.253	13.516	1.533	12.027	37.834	101.918
1983	13.370	0.316	16.166	1.400	14.999	46.250	119.027
1984	17.278	0.797	20.157	2.092	18.838	59.162	139.249
1985	17.751	2.183	26.535	2.450	25.704	74.624	186.076
1986	17.971	3.107	26.764	3.152	35.222	86.216	225.236
1987	18.760	3.094	31.607	4.933	44.791	103.185	267.589
1988	18.562	3.323	34.259	7.125	48.963	112.233	300.414
1989	19.919	3.246	37.939	5.658	48.166	114.929	260.108
1990	24.849	5.227	35.968	6.753	58.330	131.126	278.140
1991	27.340	5.523	42.218	9.309	63.334	147.723	326.282
1992	28.567	5.877	48.065	9.854	78.876	171.239	405.918
1993	29.170	5.725	49.803	13.147	93.933	191.777	457.341
1994	26.318	4.230	50.783	15.734	97.472	194.536	437.868
1995	27.871	3.850	49.339	15.961	102.959	199.979	446.924
1996	30.069	5.201	53.226	17.513	121.715	227.724	460.414
1997	34.111	5.604	65.361	24.170	143.862	273.108	464.687
1998	25.955	7.116	71.738	19.737	158.148	282.694	464.553
1999	21.681	6.584	71.820	14.821	186.398	301.303	466.825
2000	19.890	6.003	35.555	9.481	213.030	283.959	457.868
2001	19.886	5.829	37.452	12.713	185.810	261.690	450.818
2002	23.519	6.061	15.893	9.397	210.018	264.887	470.747
2003	30.438	8.075	23.205	8.810	211.859	282.387	526.268
2004	38.729	8.758	27.739	17.310	243.491	336.026	
2005	54.191	9.810	24.225	26.011	299.924	414.162	
2006	63.005	10.697	32.066	30.638	335.366	471.772	

[1] Figures before 1989 include investment in state- and urban collective-owned units. 1989 and later figures are for state-owned units only. (For comparison, 1988 investment in state-owned units in the industrial sector was 64.3 billion yuan.) Sum of sectoral figures is slightly less than total figure because only one item in the "Other Investment" category (oilfield maintenance and development projects, amounting to 13.5 billion yuan) was available. Investment includes capital construction, technical updating and transformation, and other investment, the former representing the majority of investment. Sectoral breakouts of total total fixed investment in recent years have come to diverge widely from sums of investment subcategories (capital construction, and technical updating and innovation investment), and appear to have much less comprehensive coverage than previously, in part due to restructuring of ownership (See Table 3B.2).

[2] Deflated using the investment goods deflators presented in Table 3B.13(b).

[3] Official statistics for 1995 and later years report coking and oil refining investment in a single category. Coking investment is small compared to oil refining.

[4] All years include investment in state-owned units only; total state-owned industry investment data were discontinued in 2004.

Source: NBS, China Statistical Yearbook, various years; NBS, China Energy Statistical Yearbook, various years; NBS, Statistical Yearbook of China's Industrial Economy, various years; NBS, China Fixed Assets Investment Statistical Yearbook, various years; NBS databases; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.4. Total Energy Industry Investment in State-Owned Units by Subsector^[1], 1981-2006 (continued)

3. Shares of Energy Industry Investment

Year	Coal Extraction	Coking, Coal Gas & Coal Products ^[3]	Oil & Natural Gas Extraction	Oil Refining & Coking ^[3]	Electricity Generation & Supply	Energy Industry Subtotal ^[4]	Energy Share of Total Industry Investment ^[4]
1981	26%	3%	33%	5%	34%	100%	37%
1982	28%	1%	36%	4%	32%	100%	37%
1983	29%	1%	35%	3%	32%	100%	39%
1984	29%	1%	34%	4%	32%	100%	42%
1985	24%	3%	36%	3%	34%	100%	40%
1986	21%	4%	31%	4%	41%	100%	38%
1987	18%	3%	31%	5%	43%	100%	39%
1988	17%	3%	31%	6%	44%	100%	37%
1989	17%	3%	33%	5%	42%	100%	44%
1990	19%	4%	27%	5%	44%	100%	47%
1991	19%	4%	29%	6%	43%	100%	45%
1992	17%	3%	28%	6%	46%	100%	42%
1993	15%	3%	26%	7%	49%	100%	42%
1994	14%	2%	26%	8%	50%	100%	44%
1995	14%	2%	25%	8%	51%	100%	45%
1996	13%	2%	23%	8%	53%	100%	49%
1997	12%	2%	24%	9%	53%	100%	59%
1998	9%	3%	25%	7%	56%	100%	61%
1999	7%	2%	24%	5%	62%	100%	65%
2000	7%	2%	13%	3%	75%	100%	62%
2001	8%	2%	14%	5%	71%	100%	58%
2002	9%	2%	6%	4%	79%	100%	56%
2003	11%	3%	8%	3%	75%	100%	54%
2004	12%	3%	8%	5%	72%	100%	
2005	13%	2%	6%	6%	72%	100%	
2006	13%	2%	7%	6%	71%	100%	

[1] Figures before 1989 include investment in state- and urban collective-owned units. 1989 and later figures are for state-owned units only. (For comparison, 1988 investment in state-owned units in the industrial sector was 64.3 billion yuan.) Sum of sectoral figures is slightly less than total figure because only one item in the "Other Investment" category (oilfield maintenance and development projects, amounting to 13.5 billion yuan) was available. Investment includes capital construction, technical updating and transformation, and other investment, the former representing the majority of investment. Sectoral breakouts of total total fixed investment in recent years have come to diverge widely from sums of investment subcategories (capital construction, and technical updating and innovation investment), and appear to have much less comprehensive coverage than previously, in part due to restructuring of ownership (See Table 3B.2).

[3] Official statistics for 1995 and later years report coking and oil refining investment in a single category. Coking investment is small compared to oil refining.

[4] All years include investment in state-owned units only; total state-owned industry investment data were discontinued in 2004.

Source: NBS, China Statistical Yearbook, various years; NBS, China Energy Statistical Yearbook, various years; NBS, Statistical Yearbook of China's Industrial Economy, various years; NBS, China Fixed Assets Investment Statistical Yearbook, various years; NBS databases; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Figure 3B.3. Investment in Fixed Assets of State-Owned Units in the Energy Industry by Subsector, 1981-2006

Figure 3B.4. Shares of Investment in Fixed Assets of State-Owned Units in the Energy Industry by Subsector, 1981-2006

Table 3B.5. Energy Industry Capital Construction Investment in State-Owned Units by Subsector^[1], 1953-2006

1. Billion Current Yuan

Year	Coal	Coke & Coal Products ^[2]	Oil and Natural Gas ^[2,3]	Electric Power ^[3]	Total ^[4]
1953	0.358	0.009	0.070	0.262	0.699
1954	0.457	0.030	0.142	0.392	1.021
1955	0.595	0.049	0.177	0.535	1.356
1956	0.805	0.018	0.426	0.724	1.973
1957	0.753	0.051	0.383	1.065	2.252
1958	1.624	0.055	0.398	2.050	4.127
1959	2.174	0.333	0.520	2.755	5.782
1960	2.454	0.058	0.868	2.964	6.344
1961	1.561	0.018	0.404	0.763	2.746
1962	0.885	0.008	0.320	0.356	1.569
1963	0.822	0.007	0.430	0.391	1.650
1964	0.922	0.005	0.592	0.648	2.167
1965	0.771	0.001	0.622	1.168	2.562
1966	0.800	0.007	0.700	1.200	2.707
1967	0.900	0.013	0.700	1.300	2.913
1968	0.900	0.019	0.800	1.400	3.119
1969	1.000	0.025	0.800	1.400	3.225
1970	1.000	0.031	0.900	1.500	3.431
1971	1.300	0.029	1.200	1.900	4.429
1972	1.600	0.029	1.500	2.300	5.429
1973	2.000	0.029	1.800	2.600	6.429
1974	2.300	0.029	2.200	3.000	7.529
1975	1.865	0.060	2.156	3.065	7.146
1976	1.654	0.027	1.909	3.398	6.988
1977	2.258	0.063	2.076	3.472	7.869
1978	3.180	0.087	3.112	5.091	11.470
1979	3.186	0.106	2.707	5.099	11.098
1980	3.347	0.066	3.338	4.814	11.565
1981	2.315	0.340	2.795	4.014	9.464
1982	2.985	0.085	2.530	4.623	10.223
1983	4.007	0.105	2.902	5.746	12.760
1984	5.514	0.320	3.063	7.699	16.596
1985	5.511	0.746	3.317	10.786	20.360
1986	5.770	0.917	3.861	16.160	26.708
1987	5.960	1.103	5.855	21.088	34.006
1988	6.350	1.187	8.646	24.973	41.156
1989	7.051	1.451	9.351	26.785	44.638
1990	9.882	2.424	10.066	33.455	55.827
1991	11.658	2.591	12.591	37.775	64.615
1992	12.685	2.909	15.798	48.969	80.361
1993	15.305	3.400	23.065	67.513	109.283
1994	16.498	2.926	26.309	103.342	149.075
1995	18.939	3.673	29.983	112.415	165.010
1996	21.654	4.646	34.360	137.419	198.079
1997	26.603	5.625	48.979	175.734	256.941
1998	18.201	6.462	44.797	193.853	263.313
1999	12.488	6.122	38.822	198.996	256.428
2000	11.634	5.680	45.239	226.708	289.261
2001	9.472	6.082	57.448	198.016	271.018
2002	11.191	6.833	61.101	222.584	301.709
2003	19.310	11.430	146.731	256.709	434.180

Billion Current Yuan

Energy Industry Fixed Assets in Urban Area by Subsector (2004-2006)^[6]

Year	Coal	Coke & Coal Products ^[5]	Oil and Natural Gas ^[2,5]	Electric Power ^[3]	Total ^[4]
2004	69.04	20.98	175.02	485.44	750.48
2005	116.29	27.46	226.49	650.32	1,020.56
2006	145.90	33.15	276.15	727.43	1,182.63

[1] For state-owned units only. Official statistics for energy investment for 1966-1970 and 1971-1974 are not available for individual years. Here we have approximated the division of investment funds among the years in these two periods by linear extrapolation, using the investment totals for each period as control sums and reported investment in 1965 and 1975 as the endpoints. Investment figures are deflated using the investment goods deflators in Table 3B.13.

[2] Includes investments in refining. From 2003, this category includes nuclear fuel.

[3] Include investment in steam and hot water supply for 1988 and later years.

[4] Totals for 1985-1990 differ from official data because, for consistency with previous years, we exclude electricity sector investment in steam and hot water supply (which in 1989 amounted to 322 million yuan).

[5] The China Statistical Yearbooks for 1995 and later years report coking and oil refining investment in a single category. However, statistics published in the NBS volume "Statistics on Investment in Fixed Assets of China, 1950-2000" allow separation by industry up to 2000. For later years, "Coke & Coal Products" includes only coal gas, and the relatively small amount of coking investment is included in the "Oil & Natural Gas" column.

[6] From 2004, the total size of the investment is categorized by subsectors and in urban areas only, rather than by ownership.

Source: NBS, Energy Statistical Yearbook of China, various years; NBS, Statistical Yearbook of China, various years; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Table 3B.5. Energy Industry Capital Construction Investment in State-Owned Units by Subsector^[1], 1953-2006

(continued)

2. Billion Constant 2000 Yuan ^[7]

Year	Coal	Coke & Coal Products ^[5]	Oil and Natural Gas ^[2]	Electric Power ^[3]	Total ^[4]
1953	1.48	0.04	0.29	1.08	2.89
1954	2.02	0.13	0.63	1.73	4.51
1955	2.71	0.22	0.81	2.44	6.18
1956	4.02	0.09	2.12	3.61	9.84
1957	3.46	0.23	1.76	4.89	10.34
1958	7.50	0.25	1.84	9.46	19.05
1959	9.98	1.53	2.39	12.65	26.55
1960	11.35	0.27	4.01	13.71	29.34
1961	6.90	0.08	1.79	3.37	12.13
1962	3.77	0.03	1.36	1.52	6.68
1963	3.54	0.03	1.85	1.68	7.11
1964	3.95	0.02	2.54	2.78	9.29
1965	3.52	0.00	2.84	5.33	11.70
1966	3.81	0.03	3.34	5.72	12.90
1967	4.34	0.06	3.37	6.27	14.04
1968	4.44	0.09	3.94	6.90	15.37
1969	5.12	0.13	4.09	7.16	16.50
1970	5.28	0.16	4.75	7.92	18.11
1971	6.89	0.15	6.36	10.08	23.49
1972	8.55	0.16	8.02	12.30	29.02
1973	10.73	0.16	9.66	13.95	34.50
1974	12.35	0.16	11.81	16.10	40.41
1975	10.14	0.33	11.72	16.66	38.84
1976	9.02	0.15	10.41	18.52	38.09
1977	12.37	0.35	11.38	19.02	43.12
1978	17.33	0.47	16.96	27.74	62.51
1979	17.14	0.57	14.56	27.43	59.70
1980	18.02	0.36	17.97	25.92	62.27
1981	11.69	1.72	14.11	20.26	47.78
1982	14.45	0.41	12.25	22.38	49.48
1983	18.32	0.48	13.27	26.27	58.33
1984	23.29	1.35	12.93	32.51	70.08
1985	21.08	2.85	12.69	41.26	77.88
1986	19.73	3.13	13.20	55.24	91.30
1987	17.94	3.32	17.63	63.49	102.39
1988	15.92	2.98	21.67	62.61	103.18
1989	15.19	3.13	20.14	57.69	96.14
1990	19.63	4.81	19.99	66.45	110.89
1991	21.15	4.70	22.84	68.52	117.21
1992	19.96	4.58	24.85	77.04	126.43
1993	19.02	4.23	28.66	83.90	135.80
1994	18.57	3.29	29.61	116.32	167.80
1995	20.13	3.90	31.87	119.49	175.39
1996	22.13	4.75	35.12	140.45	202.44
1997	26.73	5.65	49.22	176.60	258.21
1998	18.33	6.51	45.11	195.20	265.14
1999	12.63	6.19	39.25	201.18	259.25
2000	11.63	5.68	45.24	226.71	289.26
2001	9.43	6.06	57.22	197.23	269.94
2002	11.12	6.79	60.74	221.25	299.91
2003	18.96	11.22	144.05	252.02	426.25

Billion Constant 2000 Yuan ^[7]

Energy Industry Fixed Assets in Urban Area by Subsector (2004-2006)

Year	Coal	Coke & Coal Products ^[5]	Oil and Natural Gas ^[2]	Electric Power ^[3]	Total ^[4]
2004	63.68	19.35	161.44	447.76	692.23
2005	101.05	23.86	196.81	565.11	886.84
2006	121.04	27.50	229.10	603.49	981.14

[1] For state-owned units only. Official statistics for energy investment for 1966-1970 and 1971-1974 are not available for individual years. Here we have approximated the division of investment funds among the years in these two periods by linear extrapolation, using the investment totals for each period as control sums and reported investment in 1965 and 1975 as the endpoints. Investment figures are deflated using the investment goods deflators in Table 3B.13.

[2] Includes investments in refining.

[3] Include investment in steam and hot water supply for 1988 and later years.

[4] Totals for 1985-1990 differ from official data because, for consistency with previous years, we exclude electricity sector investment in steam and hot water supply (which in 1989 amounted to 322 million yuan).

[5] The China Statistical Yearbooks for 1995 and later years report coking and oil refining investment in a single category. However, statistics published in the NBS volume "Statistics on Investment in Fixed Assets of China, 1950-2000" allow separation by industry up to 2000. For later years, "Coke & Coal Products" includes only coal gas, and the relatively small amount of coking investment is included in the "Oil & Natural Gas" column.

[6] From 2004, the total size of the investment is categorized by subsectors and in urban areas only, rather than by ownership.

[7] 1953-2002 deflators are from Table 3B.10(a). 2002-2006 deflators are from Table 3B.10(b).

Source: NBS, Energy Statistical Yearbook of China, various years; NBS, Statistical Yearbook of China, various years; Energy Research Institute; NBS, Statistics on Investment in Fixed Assets, 1950-2000.

Figure 3B.5. Capital Construction Investment in State-Owned Units in the Energy Industry by Subsector, 1953-2003

N.B. After 2003, data on state-owned units are not available.

Figure 3B.6. Subsectoral Shares of Energy Industry Capital Construction Investment in State-Owned Units, 1953-2003

N.B. After 2003, data on state-owned units are not available.

Table 3B.6. Energy Industry Technical Updating & Transformation Investment by Subsector and Purpose[1], 1981-2003

1. Billion Current Yuan

Sector/Purpose	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Coal subtotal	1.29	1.35	1.60	1.74	2.43	2.75	3.02	3.47	4.31	4.75	5.21	5.81	6.56	6.37	8.40	9.45	9.97	9.40	8.42	7.62	10.29	15.98	19.46
<i>extraction</i>	1.28	1.34	1.58	1.72	2.42	2.73	3.00	3.45	4.27														
<i>processing</i>	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.02	0.04														
Coke, Coal Gas & Produc	0.02	0.03	0.04	0.05	0.30	0.63	0.52	0.71	0.54	0.86	0.99	1.09	1.11	1.09	1.04	1.42	1.09	1.45	1.64	1.30	1.30	1.43	2.45
Oil & Natural Gas subtot	2.61	1.95	2.86	1.28	1.49	1.71	2.15	4.28	3.92	3.71	4.22	3.31	8.44	13.67	17.62	20.06	25.54	28.58	24.03	38.64	42.81	39.14	45.21
<i>extraction</i>	2.37	1.64	2.52	0.79	0.92	1.03	1.18	2.76	2.60	1.97	1.95	0.84	4.82	8.09	9.37	10.05	11.30	18.08	13.80	25.65	26.66	25.51	26.18
<i>refining</i>	0.24	0.31	0.34	0.48	0.58	0.68	0.96	1.52	1.32	1.73	2.27	2.46	3.62	5.58	8.25	10.01	14.24	10.50	10.23	12.99	16.16	13.63	19.03
Electric Power subtotal	0.74	0.89	1.14	1.14	1.38	1.82	2.25	2.88	2.79	3.19	3.24	4.65	7.35	12.18	18.18	21.87	23.48	29.43	41.47	43.82	43.66	53.47	64.04
<i>generation</i>	0.35	0.44	0.53	0.53	0.67	0.89	1.04	1.41	1.43	1.85													
<i>distribution</i>	0.39	0.45	0.62	0.61	0.68	0.89	1.13	1.38	1.30	1.28													
<i>steam & hot water</i>					0.03	0.04	0.09	0.09	0.06	0.06													
Total ^[2]	4.66	4.22	5.63	4.21	5.59	6.91	7.93	11.34	11.56	12.51	13.66	14.86	23.45	33.30	45.24	52.79	60.08	68.85	75.57	91.37	98.06	110.01	131.16

2. Billion Constant 2000 Yuan^[3]

Sector/Purpose	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Coal subtotal	6.52	6.51	7.29	7.34	9.28	9.39	9.08	8.71	9.28	9.44	9.45	9.14	8.15	7.17	8.93	9.65	10.02	9.46	8.51	7.62	10.24	15.88	19.10
<i>extraction</i>	6.45	6.47	7.23	6.57	9.26	9.34	9.03	8.65	9.20														
<i>processing</i>	0.07	0.04	0.06	0.07	0.02	0.05	0.05	0.06	0.08														
Coke, Coal Gas & Produc	0.10	0.14	0.18	0.14	1.13	2.15	1.58	1.77	1.17	1.71	1.79	1.71	1.38	1.23	1.10	1.45	1.10	1.46	1.66	1.30	1.30	1.42	2.41
Oil & Natural Gas subtot	13.17	9.44	13.06	2.53	5.70	5.85	6.46	10.73	8.44	7.36	7.65	5.20	10.48	15.38	18.73	20.50	25.67	28.78	24.30	38.64	42.64	38.90	44.38
<i>extraction</i>	11.97	7.93	11.52	1.44	3.50	3.53	3.56	6.93	5.59	3.92	3.53	1.33	5.99	9.11	9.96	10.27	11.36	18.20	13.95	25.65	26.55	25.36	25.70
<i>refining</i>	1.20	1.51	1.55	0.76	2.20	2.32	2.89	3.80	2.85	3.44	4.12	3.88	4.49	6.28	8.77	10.23	14.31	10.58	10.34	12.99	16.09	13.55	18.68
Electric Power subtotal	3.74	4.32	5.22	1.29	5.28	6.23	6.77	7.22	6.00	6.34	5.88	7.32	9.13	13.70	19.33	22.35	23.59	29.63	41.93	43.82	43.49	53.15	62.86
<i>generation</i>	1.78	2.13	2.40	0.56	2.56	3.04	3.13	3.53	3.08	3.68													
<i>distribution</i>	1.96	2.19	2.82	0.63	2.62	3.04	3.39	3.46	2.80	2.55													
<i>steam & hot water</i>	0.00	0.00	0.00	0.00	0.10	0.15	0.26	0.23	0.13	0.12													
Total ^[2]	23.53	20.41	25.76	4.26	21.39	23.61	23.89	28.42	24.89	24.85	24.78	23.37	29.14	37.49	48.08	53.95	60.38	69.33	76.40	91.37	97.67	109.35	128.76

[1] Figures refer to investment in state-and urban collective-owned units only.

[2] From 1984-1989 about 85% of technical updating and transformation investment was for "productive" purposes, i.e., directly related to production. The balance went for "nonproductive" purposes, such as construction of schools, hospitals, housing and other workforce social welfare facilities.

[3] 1981-2002 deflators are presented in Table 3B.13(a). 2003 deflator is presented in Table 3B.13(b).

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute.

Table 3B.6. Energy Industry Technical Updating & Transformation Investment by Subsector and Purpose ^[1], 1981-2003 (continued)

3. Shares of Total

Sector/Purpose	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Coal subtotal	28%	32%	28%	41%	43%	40%	38%	31%	37%	38%	38%	39%	28%	19%	19%	18%	17%	14%	11%	8%	10%	15%	15%
<i>extraction</i>	27%	32%	28%	41%	43%	40%	38%	30%	37%														
<i>processing</i>	0%	0%	0%	0%	0%	0%	0%	0%	0%														
Coke, Coal Gas & Produc	0%	1%	1%	1%	5%	9%	7%	6%	5%	7%	7%	7%	5%	3%	2%	3%	2%	2%	2%	1%	1%	1%	2%
Oil & Natural Gas subtota	56%	46%	51%	30%	27%	25%	27%	38%	34%	30%	31%	22%	36%	41%	39%	38%	43%	42%	32%	42%	44%	36%	34%
<i>extraction</i>	51%	39%	45%	19%	16%	15%	15%	24%	22%	16%	14%	6%	21%	24%	21%	19%	19%	26%	18%	28%	27%	23%	20%
<i>refining</i>	5%	7%	6%	11%	10%	10%	12%	13%	11%	14%	17%	17%	15%	17%	18%	19%	24%	15%	14%	14%	16%	12%	15%
Electric Power subtotal	16%	21%	20%	27%	25%	26%	28%	25%	24%	26%	24%	31%	31%	37%	40%	41%	39%	43%	55%	48%	45%	49%	49%
<i>generation</i>	8%	10%	9%	13%	12%	13%	13%	12%	12%	15%													
<i>distribution</i>	8%	11%	11%	15%	12%	13%	14%	12%	11%	10%													
<i>steam & hot water</i>					0%	1%	1%	1%	1%	0%													
Total ^[2]	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

[1] Figures refer to investment in state-and urban collective-owned units only.

[2] From 1984-1989 about 85% of technical updating and transformation investment was for "productive" purposes, i.e., directly related to production. The balance went for "nonproductive" purposes, such as construction of schools, hospitals, housing and other workforce social welfare facilities.

[3] 1981-2002 deflators are presented in Table 3B.13(a). 2003 deflator is presented in Table 3B.13(b).

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute.

Figure 3B.7. Technical Updating and Transformation Investment in Energy Industries, 1981-2003

N.B. After 2003, data on state-owned units are not available.

Table 3B.7. Total Technical Updating and Transformation Investment by Investment Category^[1], 1981-2005

1. Billion Current Yuan

Year	Technical Updating and Transformation Investment ^[2]						Total Investment
	Energy Conservation	Waste Management ^[3]	Environmental Protection	Residential Energy Conservation	Other ^[4]	Subtotal	
1981	0.78	0.27	1.35		18.16	19.53	66.75
1982	1.20	0.41	2.25		23.20	25.04	84.53
1983	1.33	0.44	1.44		27.21	29.11	95.20
1984	1.74	0.61	2.10	0.83	28.29	30.93	118.52
1985	1.74	0.91		1.01	42.17	44.91	168.05
1986	2.27	1.18			59.47	62.92	197.85
1987	2.59	1.43			71.84	75.86	229.80
1988	3.05	1.68			93.22	97.95	276.28
1989	2.52	1.50			74.85	78.88	253.55
1990	2.73		1.48		77.34	83.02	291.86
1991	3.35		1.96		95.06	102.32	362.28
1992	4.14		2.33		137.31	146.11	527.36
1993	4.96		3.21				765.80
1994	7.99		4.57				961.50
1995	9.29		4.75				1,089.82
1996	8.07		6.12				1,200.62
1997	10.22		6.46				1,309.17
1998	10.31		7.12				1,536.93
1999	14.88		8.91				1,594.78
2000	16.37		12.04				1,650.44
2001	19.81		11.15				1,760.70
2002	22.93		11.17				1,887.74
2003							2,166.10
2004							2,502.76
2005							2,966.69

[1] Includes only funds actually invested in state-owned units, not investment targets. Includes investment in all sectors (see following table for breakdown by sectors). About half of investment in this category goes for expansion or replacement of existing production capacity, and most of the rest is devoted to product development (increasing variety and improving quality) and "nonproductive" construction (e.g. housing, schools, and hospitals). We believe this includes the great majority of this category of investment in China's industry.

[2] From 2003, data of updating and transformation investment is not available in China Statistical Yearbook. The total investment amount is available.

[3] Referred to in Chinese sources as "zhili sanfei", or management of the "three wastes", which are: waste water; waste gases, including soot, "industrial dust" and sulfur dioxide; and "waste residue" (presumably solid waste).

[4] The bulk of investment funds in the technical updating and transformation category are used for the replacement or renovation of industrial equipment.

Source: SPC, Handbook of Comprehensive Resource Utilization, 1991; NBS, China Statistical Yearbook, various years; Energy Research Institute.

Table 3B.7. Total Technical Updating and Transformation Investment by Investment Category^[1], 1981-2005 (continued)

2. Billion Constant 2000 Yuan^[5]

Year	Technical Updating and Transformation Investment					Subtotal	Total Investment
	Energy Conservation	Waste Management ^[3]	Environmental Protection	Residential Energy Conservation	Other ^[4]		
1981	3.93	1.34	6.82		91.68	98.59	336.98
1982	5.80	1.99	10.89		112.31	121.19	409.16
1983	6.07	2.00	6.58		124.37	133.10	435.22
1984	7.33	2.58	8.87	3.51	119.46	130.61	500.49
1985	6.64	3.47		3.86	161.29	171.79	642.78
1986	7.78	4.03			203.30	215.10	676.36
1987	7.80	4.31			216.29	228.40	691.89
1988	7.66	4.21			233.69	245.56	692.60
1989	5.44	3.23			161.22	169.89	546.09
1990	5.42		2.93		153.61	164.90	579.72
1991	6.08		3.55		172.44	185.61	657.16
1992	6.51		3.67		216.01	229.87	829.66
1993	6.16		3.99				951.64
1994	9.00		5.14				1,082.28
1995	9.87		5.05				1,158.38
1996	8.24		6.26				1,227.06
1997	10.27		6.49				1,315.64
1998	10.38		7.17				1,547.62
1999	15.05		9.01				1,612.32
2000	16.37		12.04				1,650.44
2001	19.73		11.10				1,753.68
2002	22.79		11.10				1,876.46
2003							2,126.51
2004							2,308.51
2005							2,577.98

[1] Includes only funds actually invested in state-owned units, not investment targets. Includes investment in all sectors (see following table for breakdown by sectors). About half of investment in this category goes for expansion or replacement of existing production capacity, and most of the rest is devoted to product development (increasing variety and improving quality) and "nonproductive" construction (e.g. housing, schools, and hospitals). We believe this includes the great majority of this category of investment in China's industry.

[2] From 2003, data of updating and transformation investment is not available in China Statistical Yearbook. The total investment amount is available.

[3] Referred to in Chinese sources as "zhili sanfei", or management of the "three wastes", which are: waste water; waste gases, including soot, "industrial dust" and sulfur dioxide; and "waste residue" (presumably solid waste).

[4] The bulk of investment funds in the technical updating and transformation category are used for the replacement or renovation of industrial equipment.

[5] Data from 1981 to 2002 are deflated using the deflators presented in Table 3B.13(a). Data from 2003 to 2005 are deflated using the deflators in Table 3B.13(b). Deflators in Table 3B.13(b) is generated based on the data of GDP that is contributed by Industry only.

Source: SPC, Handbook of Comprehensive Resource Utilization, 1991; NBS, China Statistical Yearbook, various years; Energy Research Institute.

Table 3B.8. Capital Construction Investment in Energy Conservation , 1981-2003

I. Billion Current Yuan

Year	Energy Supply Investment	Energy Conservation Capital Construction Investment ^[1]	Energy Conservation Technical Updating Investment	Total Energy Conservation Investment
1981	14.17	0.59	0.90	1.49
1982	17.39	0.89	1.20	2.09
1983 ^[1]	21.31	1.48	1.33	2.81
1984 ^[1]	27.85	1.48	1.74	3.22
1985 ^[1]	36.28	1.48	1.74	3.22
1986	44.15	1.65	2.27	3.93
1987	54.03	2.09	2.59	4.68
1988	64.00	2.44	3.05	5.49
1989	70.56	2.46	2.52	4.99
1990	82.39	2.67	2.73	5.40
1991 ^[1]	95.68	5.06	3.35	8.41
1992 ^[1]	116.41	5.06	4.14	9.20
1993 ^[1]	149.77	5.06	4.96	10.02
1994 ^[1]	175.41	5.06	7.99	13.06
1995 ^[1]	202.53	5.06	9.29	14.35
1996	241.93		8.07	
1997	291.40		10.22	
1998	286.21		10.31	
1999 ^[2]				
2000	283.96			
2001	262.16			
2002	262.62			
2003	287.67			

[1] Only the sum of investment for the period 1983-1985 and 1991-1995 was available. The total was divided equally among each period (estimates in italics).

[2] Data of 1999 is not available. From 2000 to 2003, only energy supply investment is available.

Source: NBS, China Statistical Yearbook, various years; SPC, Handbook of Comprehensive Resource Utilization, 1991; Energy Research Institute.

Table 3B.8. Capital Construction Investment in Energy Conservation, 1981-2003
(continued)

2. Billion Constant 2000 Yuan^[3]

Year	Energy Supply Investment	Energy Conservation Capital Construction Investment ^[1]	Energy Conservation Technical Updating Investment	Total Energy Conservation Investment
1981	71.54	2.99	4.53	7.53
1982	84.19	4.30	5.80	10.10
1983 ^[1]	97.44	6.77	6.07	12.84
1984 ^[1]	117.61	6.25	7.33	13.58
1985 ^[1]	138.75	5.66	6.64	12.31
1986	150.92	5.65	7.78	13.42
1987	162.67	6.29	7.80	14.09
1988	160.45	6.11	7.66	13.77
1989	151.98	5.30	5.44	10.74
1990	163.64	5.30	5.42	10.72
1991 ^[1]	173.55	9.19	6.08	15.26
1992 ^[1]	183.14	7.97	6.51	14.48
1993 ^[1]	186.11	6.29	6.16	12.45
1994 ^[1]	197.45	5.70	9.00	14.70
1995 ^[1]	215.27	5.38	9.87	15.25
1996	247.25		8.24	
1997	292.84		10.27	
1998	288.20		10.38	
1999 ^[2]				
2000	283.96			
2001	261.69			
2002	264.89			
2003	282.41			

[1] Only the sum of investment for the period 1983-1985 and 1991-1995 was available. The total was divided equally among each period (estimates in italics).

[2] Data of 1999 is not available. From 2000 to 2003, only energy supply investment is available.

[3] Before 2003, deflators are presented in Table 3B.13(a). Data in 2003 are calculated using deflators presented in Table 3B.13(b). Deflators in Table 3B.13(b) is generated based on the data of GDP that is contributed by industry only.

Source: NBS, China Statistical Yearbook, various years; SPC, Handbook of Comprehensive Resource Utilization, 1991; Energy Research Institute.

Table 3B.8. Capital Construction Investment in Energy Conservation, 1981-1995
(continued)

3. Shares of Total Energy Investment

Year	Energy Supply Investment	Energy Conservation Capital Construction Investment	Energy Conservation Technical Updating Investment	Total Energy Conservation Investment
1981	90.5%	3.8%	5.7%	9.5%
1982	89.3%	4.6%	6.1%	10.7%
1983 ^[1]	88.4%	6.1%	5.5%	11.6%
1984 ^[1]	89.6%	4.8%	5.6%	10.4%
1985 ^[1]	91.9%	3.8%	4.4%	8.1%
1986	91.8%	3.4%	4.7%	8.2%
1987	92.0%	3.6%	4.4%	8.0%
1988	92.1%	3.5%	4.4%	7.9%
1989	93.4%	3.3%	3.3%	6.6%
1990	93.9%	3.0%	3.1%	6.1%
1991 ^[1]	91.9%	4.9%	3.2%	8.1%
1992 ^[1]	92.7%	4.0%	3.3%	7.3%
1993 ^[1]	93.7%	3.2%	3.1%	6.3%
1994 ^[1]	93.1%	2.7%	4.2%	6.9%
1995 ^[1]	93.4%	2.3%	4.3%	6.6%

[1] Only the sum of investment for the period 1983-1985 and 1991-1995 was available. The total was divided equally among each period (estimates in italics).

Source: NBS, China Statistical Yearbook, various years; SPC, Handbook of Comprehensive Resource Utilization, 1991; Energy Research Institute.

Table 3B.9. Newly Increased Production Capacity, 1981-2006

1. Newly Increased Production Capacity (2001-2006) ^[1]

	Coal Mining (Mt/yr)	Coal Washing (Mt/yr)	Coking (Mt/yr)	Petroleum Extraction (Mt/yr)	Natural Gas Extraction (bcm/yr)	Generating Capacity			
						Thermal (MW)	Hydro (MW)	Other ^[2] (MW)	Total (MW)
2001	27.2		10.14	19.31	1.8	12,610	5,340	1,550	19,500
2002	34.19		11.69	25.41	16.4	33,170	5,230	4,940	43,340
2003	74.43		40.92	17.16	5.4	21,390	12,680	130	34,200
2004	154.41		92.84	24.68	11.400	36,980	11,080	3,100	51,160
2005	183.77		73.37	23.88	12.900	52,760	12,790	1,690	67,240
2006	226.48		51.13	16.02	7.600	80,190	12,950	4,300	97,440

[1] Since 2004, NBS changed the way to categorize the newly increased production capacity. This includes both state-owned and non-state-owned enterprises.

[2] Other power includes nuclear power.

Source: NBS, China Statistical Yearbook, various years.

2. Increments from Capital Construction Investment of State-Owned Enterprises

	Coal Mining (Mt/yr)	Coal Washing (Mt/yr)	Coking (Mt/yr)	Petroleum Extraction (Mt/yr)	Refinery Capacity		Natural Gas Extraction (bcm/yr)	Generating Capacity		
					Distillation (Mt/yr)	Cracking (Mt/yr)		Thermal (MW)	Hydro & Other (MW)	Total (MW)
1981	13.73	2.25		5.19			0.622	1,523	1,117	2,640
1982	8.20	2.55		6.37			0.627	2,053	890	2,943
1983	18.52	7.75		8.11			0.475	3,417	1,074	4,491
1984	24.35	5.00		13.97			0.547	2,688	1,091	3,779
1985	16.47	6.66		17.37			1.080	5,871	506	6,376
1986	21.05	13.30		15.49			0.537	5,410	1,228	6,638
1987	21.06	11.70		16.40			0.440	6,071	2,674	8,744
1988	33.02	4.45		15.81			1.350	2,338	8,832	11,170
1989	28.45	19.60		16.50			0.531	8,961	1,648	10,609
1990	23.36	11.81		13.24			0.707	7,726	1,430	9,156
1991	33.40			13.09			0.721	9,360	2,013	11,373
1992	27.92			14.52			1.068	10,940	2,849	13,789
1993	13.05			15.43			1.041	9,385	4,062	13,447
1994	9.55	6.95		15.45			1.164	8,050	6,048	14,098
1995	23.31	2.96		16.35			0.953	10,650	3,740	14,420
1996	16.94	3.96	0.78	9.03	0.20	1.24	0.300	13,600	3,730	17,410
1997	30.02	6.73	0.70	12.46	5.00	1.80	0.300	10,260	3,690	13,980
1998	9.69	1.01	0.60	8.35	16.70	5.50	1.500	15,490	4,500	20,000
1999	23.47			9.50				14,240	6,290	20,520
2000	22.55			9.20				15,600	4,520	20,120
2001	14.88			15.63				12,970	2,900	15,870
2002	18.19			22.33				8,080	1,480	11,930
2003	40.14			14.65				15,570	11,990	27,590

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute.

3. Increments from Technical Updating and Transformation Investment of State-Owned Enterprises

	Coal Mining (Mt/yr)	Coal Washing (Mt/yr)	Coking (Mt/yr)	Petroleum Extraction ^[3] (Mt/yr)	Refinery Capacity		Natural Gas Extraction (bcm/yr)	Generating Capacity			
					Distillation (Mt/yr)	Cracking (Mt/yr)		Thermal (MW)	Hydro (MW)	Cogeneration & Other (MW)	Total ^[4] (MW)
1981	3.32	1.01		3.58	0.308	0.053		186	78	82	346
1982	4.28	3.37		3.20	0.153	0.144		39	80	52	172
1983	4.48	0.90		2.69	0.550	0.000		70	87	53	210
1984	5.31	0.60		0.16	0.850	0.401		122	38	64	223
1985	4.16	1.12	0.26	0.10	0.900	0.313		79	42	45	165
1986	4.10	1.93	0.33	0.05	0.784	0.241		369	46	72	487
1987	3.45	1.21	1.02	0.86	1.060	0.480		330	53	52	570
1988	2.74	0.27	1.13	1.64	0.850	0.961		420	61	113	622
1989	2.95	3.56	0.80	0.61	1.153	1.048		266	50	108	445
1990	3.41	1.43	1.14	0.91	3.334	2.135		761	153	139	1,095
1991	1.64	2.16	0.74	0.04	4.280	1.350		513	166	138	824
1992	2.73							680	87	100	868
1993	3.61	1.61		1.23	0.530	0.730		702	260	45	1,007
1994	2.80	1.13		0.23	1.862	0.840		889	114		1,074
1995	4.77	0.59		0.71	2.530	1.190		1,310	630	270	2,211
1996	4.56	7.73	1.53	0.14	1.670	2.970	0.300	2,090	190	30	2,310
1997	5.30	2.54	1.74	0.39	4.270	4.650		1,810	90	50	1,940
1998	6.80	4.08	1.25	0.76	2.520	1.480	1.000	1,420	1,050	770	3,230
1999	9.01			0.35				1,590	530	50	2,170
2000	6.14			3.40				1,570	280	1,560	3,410
2001	7.41			2.36				1,810	1,890	1,520	5,220
2002	13.53			2.77				2,400			2,400

[3] Includes increased capacity from oilfield conservation and development funds.

[4] For 1987-1991 there is an unexplained discrepancy between total new generating capacity and the sum of the categories.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; Energy Research Institute.

Table 3B.10(a). Investment Goods Deflators^[1], 1953-2002

Year	Preceding year = 1	1980 = 1	1990 = 1	2000 = 1
1953		1.303	0.481	0.242
1954	0.937	1.220	0.450	0.227
1955	0.968	1.181	0.436	0.219
1956	0.914	1.080	0.398	0.200
1957	1.086	1.173	0.433	0.218
1958	0.995	1.167	0.430	0.217
1959	1.005	1.172	0.432	0.218
1960	0.993	1.164	0.430	0.216
1961	1.047	1.218	0.449	0.226
1962	1.038	1.264	0.466	0.235
1963	0.989	1.250	0.461	0.232
1964	1.004	1.256	0.463	0.233
1965	0.939	1.179	0.435	0.219
1966	0.958	1.130	0.417	0.210
1967	0.989	1.117	0.412	0.207
1968	0.978	1.092	0.403	0.203
1969	0.963	1.052	0.388	0.195
1970	0.969	1.020	0.376	0.189
1971	0.995	1.015	0.375	0.189
1972	0.992	1.007	0.372	0.187
1973	0.996	1.003	0.370	0.186
1974	1.000	1.003	0.370	0.186
1975	0.988	0.991	0.365	0.184
1976	0.997	0.988	0.364	0.183
1977	0.995	0.983	0.362	0.182
1978	1.005	0.988	0.364	0.183
1979	1.013	1.001	0.369	0.186
1980	0.999	1.000	0.369	0.186
1981	1.067	1.067	0.393	0.198
1982	1.043	1.112	0.410	0.207
1983	1.059	1.178	0.434	0.219
1984	1.083	1.275	0.470	0.237
1985	1.104	1.408	0.519	0.261
1986	1.119	1.575	0.581	0.293
1987	1.135	1.788	0.660	0.332
1988	1.201	2.148	0.792	0.399
1989	1.164	2.500	0.922	0.464
1990	1.084	2.711	1.000	0.503
1991	1.095	2.968	1.095	0.551
1992	1.153	3.423	1.263	0.636
1993	1.266	4.333	1.598	0.805
1994	1.104	4.784	1.765	0.888
1995	1.059	5.066	1.869	0.941
1996	1.040	5.268	1.943	0.978
1997	1.017	5.358	1.976	0.995
1998	0.998	5.347	1.973	0.993
1999	0.996	5.326	1.965	0.989
2000	1.011	5.384	1.986	1.000
2001	1.004	5.406	1.994	1.004
2002 ^[2]	1.002	5.417	1.998	1.006

[1] Figures for 1980-1989 are from Naughton, 1992. Figure for 1990 calculated based on the method described in Naughton, 1992, based on construction price statistics. Figures for later years are reported in the China Statistical Yearbook, various years.

[2] These data have not been updated for 2003 or thereafter.

Source: NBS, China Statistical Yearbook, various years; NBS, China Construction Industry Statistical Materials, 1993; Naughton, 1992.

Talbe 3B.10(b). Industry GDP Deflators ^[1], 1978-2006

Year	Preceding year = 1	1980 = 1	1990 = 1	2000=1
1978		0.985	0.714	0.449
1979	1.013	0.998	0.724	0.455
1980	1.002	1.000	0.725	0.456
1981	1.009	1.009	0.731	0.460
1982	0.998	1.007	0.730	0.459
1983	1.001	1.008	0.731	0.459
1984	1.022	1.030	0.747	0.469
1985	1.046	1.078	0.781	0.491
1986	1.049	1.130	0.820	0.515
1987	1.021	1.154	0.837	0.526
1988	1.093	1.261	0.915	0.575
1989	1.068	1.348	0.977	0.614
1990	1.023	1.379	1.000	0.628
1991	1.031	1.421	1.031	0.648
1992	1.050	1.492	1.082	0.680
1993	1.149	1.714	1.243	0.781
1994	1.155	1.979	1.435	0.902
1995	1.123	2.223	1.612	1.013
1996	1.049	2.332	1.691	1.062
1997	1.004	2.342	1.698	1.067
1998	0.949	2.222	1.611	1.012
1999	0.971	2.158	1.565	0.983
2000	1.017	2.195	1.592	1.000
2001	1.002	2.199	1.594	1.002
2002	0.990	2.176	1.578	0.991
2003	1.027	2.236	1.621	1.019
2004	1.064	2.379	1.725	1.084
2005	1.061	2.526	1.832	1.151
2006	1.047	2.645	1.918	1.205

[1] Deflators are calculated based on the data of GDP that is contributed by industry only. Data from NBS, China Statistical Yearbook, 2007.

Source: NBS, China Statistical Yearbook, 2007.

Table 3B.11. Investment in Energy Industry in Urban Area by Subsectors and Purpose ^[1], 2002-2006

1. Billion Current Yuan

Sector/Purpose	1995	2000	2002	2003	2004	2005	2006
Coal subtotal	28.56	21.14	30.12	43.64	69.04	116.29	145.90
<i>mining</i>							
<i>washing</i>							
Extraction of	50.38	78.94	81.46	94.60	111.23	146.36	182.22
<i>petroleum</i>							
<i>natural gas</i>							
Processing of	19.44	17.26	23.60	32.11	63.79	80.13	93.93
<i>petroleum & coking</i>							
<i>nuclear fuel</i>							
Production and Distribution of	133.69	274.45	282.28	380.39	506.42	677.78	760.58
<i>electricity</i>							
<i>gas</i>							
<i>water</i>							
Total	232.07	391.78	417.46	550.73	750.48	1020.56	1182.63

[1] Data for 2001 is not available.

Source: China Energy Statistical Yearbook, 2005; China Statistical Yearbook, various years, NBS.

Table 3B.11. Investment in Energy Industry in Urban Area by Subsectors and Purpose ^[1], 2002-2006 (continued)

2. Billion Constant 2000 Yuan ^[2]

Sector/Purpose	1995	2000	2002	2003	2004	2005	2006
Coal subtotal	28.20	21.14	30.38	42.84	63.68	101.05	121.04
<i>mining</i>							
<i>washing</i>							
Extraction of	49.75	78.94	82.17	92.87	102.60	127.18	151.17
<i>petroleum</i>							
<i>natural gas</i>							
Processing of	19.19	17.26	23.80	31.52	58.84	69.63	77.93
<i>petroleum & coking</i>							
<i>nuclear fuel</i>							
Production and Distribution of	132.00	274.45	284.72	373.44	467.12	588.97	630.99
<i>electricity</i>							
<i>gas</i>							
<i>water</i>							
Total	229.15	391.78	421.07	540.67	692.23	886.84	981.14

[1] Data for 2001 is not available.

[2] Deflators are presented in Table 3B.10(b).

Source: China Energy Statistical Yearbook, 2005; China Statistical Yearbook, various years, NBS.

Table 3B.11. Investment in Energy Industry in Urban Area by Subsectors and Purpose ^[1], 2002-2006 (continued)

3. Shares of Total

Sector/Purpose	1995	2000	2002	2003	2004	2005	2006
Coal subtotal	12%	5%	7%	8%	9%	11%	12%
<i>mining</i>							
<i>washing</i>							
Extraction of	22%	20%	20%	17%	15%	14%	15%
<i>petroleum</i>							
<i>natural gas</i>							
Processing of	8%	4%	6%	6%	8%	8%	8%
<i>petroleum & coking</i>							
<i>nuclear fuel</i>							
Production and Distribution of	58%	70%	68%	69%	67%	66%	64%
<i>electricity</i>							
<i>gas</i>							
<i>water</i>							
Total	100%	100%	100%	100%	100%	100%	100%

[1] Data for 2001 is not available.

[2] Deflators are presented in Table 3B.10(b).

Source: China Energy Statistical Yearbook, 2005; China Statistical Yearbook, various years, NBS.

Table 3B.12. Economic indicators of Energy Industry, 2005-2006

1. Economic Indicators of State-owned and large non-State-owned Energy Industry

(a) 2006, Billion Current Yuan

	Coal Mining and Washing	Oil and Natural Gas Extraction	Processing of Petroleum, Coking & Nuclear Fuels	Electric Power and Heat Power Generation & Supply	Gas Generation and Supply	Water Generation and Supply
Number of Enterprises	301,961	6,797	2,160	5,731	526	2,476
Number of Loss-making Enterprises	47,135	894	561	1,633	154	1,164
Total Industrial Output	31,658.90	720.76	1,514.90	2,154.93	73.21	71.48
Industrial Sales Output	31,082.86	710.71	1,501.87	2,151.82	73.26	69.59
Industrial Added Value	9,107.57	358.73	231.42	691.25	19.17	31.51
Total Assets	29,121.45	1,107.00	758.48	4,645.69	146.57	359.65
Total Fixed-Assets	12,519.01	551.52	378.46	3,079.55	82.97	223.60
Net Value of Fixed Assets	10,994.94	440.32	327.59	2,707.47	70.02	191.18
Total Liabilities	16,732.22	671.40	432.46	2,658.57	80.20	181.50
Main Business Revenues	31,359.25	746.12	1,504.97	2,222.25	88.09	67.04
Operating Profits	1,972.84	75.73	-23.60	136.23	1.40	0.97
Total Profits	1,950.44	69.05	-31.22	168.93	2.98	2.42
Loss-making Enterprises'	227.23	3.21	59.44	13.78	1.94	2.87
Total Loss						
Percentage of Industrial Added Value (%)	28.77	49.77	15.28	32.08	26.19	44.09
Percentage of Total Assets Contribution (%)	12.74	13.29	6.20	8.45	4.82	2.82
Percentage of Liabilities (%)	57.46	60.65	57.02	57.23	54.72	50.46

Source: NBS, China Industry Economy Statistical Yearbook, 2007.

Table 3B.12. Economic indicators of Energy Industry, 2005-2006 (continued)

(b) 2005, Billion Current Yuan

	Coal Mining and Washing	Oil and Natural Gas Extraction	Processing of Petroleum, Coking & Nuclear Fuels	Electric Power and Heat Power Generation & Supply	Gas Generation and Supply	Water Generation and Supply
Number of Enterprises	5,787	174	1,990	5,527	484	2,492
Number of Loss-making Enterprises	634	15	540	1,766	162	1,204
Total Industrial Output	572.28	628.63	1,200.05	1,778.59	51.47	57.90
Industrial Sales Output	563.04	6,275.71	1,188.70	1,774.60	51.73	56.19
Industrial Added Value	288.83	481.40	198.16	571.98	13.45	26.16
Total Assets	869.35	675.18	649.08	3,937.55	118.62	289.68
Total Fixed-Assets	433.70	496.61	313.32	2,576.09	66.64	190.77
Net Value of Fixed Assets	356.08	458.79	278.55	2,242.34	55.70	158.86
Total Liabilities	533.25	231.18	366.49	2,231.82	61.12	138.57
Main Business Revenues	591.25	615.12	1,203.05	1,858.04	66.21	54.24
Operating Profits	64.31	303.54	-16.06	95.75	0.44	-1.08
Total Profits	56.10	295.78	-11.93	115.77	1.68	-0.15
Loss-making Enterprises'	1.40	0.98	37.57	17.84	1.77	3.20
Percentage of Industrial Added Value (%)	50.47	76.58	16.51	32.16	26.13	45.16
Percentage of Total Assets Contribution (%)	13.64	55.32	8.53	7.57	3.58	1.83
Percentage of Liabilities (%)	61.34	34.24	56.46	56.68	51.53	47.84

Source: NBS, China Industry Economy Statistical Yearbook, 2006.

Table 3B.13. Investment in Pollution Treatment, 2000-2006

1. Billion Current Yuan

Year	<i>Investment in</i>							Total
	Envrionmental Pollution	Industrial Pollution	Waste Water	Waste Gas	Solid Waste	Noise Pollution	Other	
2000	101.49	23.94	10.96	9.09	0.11	0.60	2.14	148.3
2001	110.67	17.45	7.29	6.58	1.87	0.06	1.65	145.6
2002	136.72	18.84	7.15	6.98	1.61	0.10	2.99	174.4
2003	162.77	22.18	8.74	9.21	1.62	0.10	2.51	207.1
2004	190.98	30.81	10.56	14.28	2.26	0.13	3.57	252.6
2005	238.80	45.82	13.37	21.30	2.74	0.31	8.10	330.4
2006	256.60	48.39	15.11	23.33	1.83	0.30	7.83	353.4

Source, NBS, China Statistical Yearbook, various years.

2. Billion Constant 2000 Yuan ^[1]

Year	<i>Investment in</i>							Total
	Envrionmental Pollution	Industrial Pollution	Waste Water	Waste Gas	Solid Waste	Noise Pollution	Other	
2000	101.49	23.94	10.96	9.09	0.11	0.60	2.14	148.3
2001	110.47	17.42	7.28	6.57	1.87	0.06	1.64	145.31
2002	137.90	19.00	7.21	7.04	1.63	0.11	3.02	175.90
2003	159.80	21.77	8.58	9.04	1.59	0.10	2.47	203.35
2004	176.16	28.42	9.74	13.17	2.09	0.12	3.30	233.00
2005	207.51	39.82	11.62	18.51	2.38	0.27	7.04	287.14
2006	212.88	40.15	12.54	19.35	1.52	0.25	6.49	293.18

[1] Deflators are presented in Table 3B.13(b)

Source, NBS, China Statistical Yearbook, various years.

Table 3C.1. Energy Conservation Investments, 1981-1995

	Unit	1981-1990	1991-1995
<i>Capital Construction Projects</i>			
Total Investment	billion current yuan	17.24	25.32
national allocations and loans [1]	billion current yuan	9.75	8.97
local and enterprise funds	billion current yuan	7.48	16.35
Energy savings capacity, Mtce/yr.	Mtce/yr	25.0	15.0
Unit investment, yuan/(tce/yr)	yuan/(tce/yr)	688	1,693
<i>Technical Updating and Transformation Projects</i>			
Total Investment	billion current yuan	9.95	27.64
national allocations and loans*	billion current yuan	5.22	5.55
local and enterprise funds	billion current yuan	4.73	22.09
Energy savings capacity	Mtce/yr	30.8	46.0
Unit investment	yuan/(tce/yr)	323	601

[1] Between 1980 and 1990, national energy conservation technical updating and transformation investment comprised 1.397 billion yuan in allocations and 3.822 billion yuan in loans. In 1987 all allocations were converted to low-interest loans.

N.B. Data of energy conservation investment are no longer continued.

Source: Wang *et al.*, 1995; SPC, Energy Conservation in China, 1997.

Table 3C.2. Completed Energy Conservation Capital Construction Projects, 1981-1995

Project	Total Capacity	Total Investment (billion current yuan)	National Allocations and Loans (billion current yuan)	Energy Savings (Mtce/yr)	Unit Cost (yuan/tce/yr)
1981-1990					
Cogeneration	5,230 MW	9.55	5.33	7.83	1,220
Recovery of waste gases	9.32 Mm3/day	1.74	0.68	3.57	487
District heating	39.8 Mm2	1.06	0.46		
Replacement of small fossil generating units with large units	1,5590 MW	0.67	0.67	0.93	720
Renovation of small ammonia plants	1.29 Mt/yr	0.67	0.44	1.80	372
Coal washing and matching	53.69 Mt/yr	0.52	0.35	2.75	189
Continuous casting (steel)	3.29 Mt/yr	0.38	0.02	0.21	1,810
Scrap steel processing	1.88 Mt/yr	0.19	0.09	1.61	118
Coal briquette production	12.26 Mt/yr	0.30	0.17	2.30	130
Waste heat power generation	150 MW	0.14		0.34	412
Steel conservation	70 kt/yr	0.33	0.16	0.12	2,750
Other		1.58	1.13	1.69	935
Total		17.24	9.75	25.04	688
1991-1995					
Cogeneration		15.76	4.75	6.00	2,627
Recovery of waste gases		1.02	0.21	0.40	2,550
District heating		0.60	0.10	0.60	993
Replacement of small fossil generating units with large units					
Renovation of small ammonia plants		0.16	0.10	0.06	2,667
Coal washing and matching		0.48	0.23	1.15	417
Continuous casting (steel)					
Scrap steel processing		0.84	0.34	0.20	4,175
Coal briquette production		0.34	0.11	1.09	312
Waste heat power generation					
Steel conservation					
Other		5.06	2.70	3.49	1,452
Total		24.25	8.54	12.99	1,867

N.B. Data of completed energy conservation capital construction projects are no longer continued.

Source: SPC, Handbook of Comprehensive Resource Utilization, 1991; SPC, Energy Conservation in China, 1997.

Table 3C.3. Investments in Energy Conservation Technical Updating and Transformation Demonstration Projects , 1981-1995

Project	Total Investment (billion current yuan)	National Allocations and Loans (billion current yuan)	Energy Savings (Mtce/yr)
1981-1990			
Utilization of waste heat; power generation with waste heat and		3.12	7.70
Renovation of industrial-boiler heat distribution networks		1.26	4.50
Renovation of industrial kilns		1.48	3.86
Renovation of process technology		1.28	2.75
Refurbishing of old equipment		0.27	0.84
Manufacturing and renovating energy-saving equipment		0.38	1.70
Matching of steam coal (to boiler/kiln design requirements)		0.07	0.55
Other conservation of coal utilization		0.15	1.00
Energy-conservation research		0.06	0.39
Specialized collaborative projects		0.05	0.20
Utilization of gangue (coal mine tailings)		0.13	1.21
Other projects		1.11	5.09
Total	20.10	9.95	30.79
1991-1995			
<i>Energy Conservation</i>		3.83	6.49
Recovery and utilization of waste heat		0.25	0.73
Power generation with waste heat and pressure		0.52	0.45
Renovation of industrial kilns		0.61	0.87
Renovation of process technology		1.07	1.14
Manufacturing and renovating energy-saving equipment		0.69	2.36
Clean coal technology		0.46	0.59
Other projects		0.23	0.35
<i>Materials Conservation</i>		1.72	2.74
Conservation and substitution of materials		0.67	0.74
Comprehensive utilization of materials		1.05	2.00
Total	27.64	5.55	9.23

N.B. Data of investments in energy conservation technical updating and transformation demonstration projects are no longer continued.

Source: SPC, Energy Conservation in China, 1997.

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Table 4A.1.1. Primary Energy Consumption

Physical units

DATABASE EXTRACT

Sum of EBYear	EBMaterial	EBUom		
	Total Coal	Total Petroleum	Natural Gas	Primary Electricity
	Mt	Mt	bm3	TWh
1980	626.01	87.95	14.27	58.21
1981	624.30	83.28	12.74	65.85
1982	658.75	82.68	11.93	74.73
1983	697.59	84.40	12.21	86.79
1984	767.69	86.72	12.43	87.55
1985	827.77	91.94	12.93	93.44
1986	873.23	97.37	13.76	95.70
1987	932.62	103.50	13.89	101.26
1988	996.68	111.02	14.26	110.62
1989	1,012.62	115.86	15.05	120.11
1990	1,022.21	114.35	15.30	128.56
1991	1,058.21	123.56	16.07	127.94
1992	1,094.99	135.53	15.79	137.45
1993	1,153.61	149.27	16.77	158.77
1994	1,231.93	148.79	17.56	180.11
1995	1,334.62	160.72	17.95	198.02
1996	1,372.12	176.56	20.11	198.72
1997	1,331.59	194.72	22.67	204.37
1998	1,228.11	196.94	23.33	215.74
1999	1,270.76	209.81	21.82	204.82
2000	1,282.97	226.32	24.06	233.08
2001	1,305.54	232.05	27.29	288.98
2002	1,370.61	249.25	29.46	308.46
2003	1,634.02	275.41	33.14	322.86
2004	1,922.65	321.16	39.02	401.65
2005	2,144.62	325.39	46.35	446.74
2006	2,357.81	348.90	56.61	489.24

N.B. The numbers in the Table 4A.1 series are database extracts, based on energy balance tables published by China's National Bureau of Statistics. The figures in the table represent Total Primary Energy Supply (Production + Imports - Exports + Stock Change, also called "Apparent Consumption" since it is equal in principle to primary energy consumption) on the basis of the energy balance identity of (TPES = Transformation + Losses + Final Energy Consumption). Because of statistical errors, particularly in the coal figures of the late 1990s, these numbers differ from the other series of primary energy consumption figures published by the National Bureau of Statistics, which reports the sum of Transformation + Losses + Final Energy Consumption (see the "Commercial Energy" figures in Table 4B.1). The difference between the two totals is reported as Statistical Error.

Table 4A.1.2. Primary Energy Consumption (Mtce)

Mtce DATABASE EXTRACT

Sum of	EBMaterial					Variance
EBYear	Total Coal	Total Petroleum	Natural Gas	Primary Electricity	Grand Total	
1980	446.97	125.76	18.98	23.52	615.23	0.0%
1981	445.75	119.09	16.94	26.60	608.38	0.0%
1982	470.34	118.23	15.87	30.19	634.63	0.0%
1983	498.08	120.68	16.24	35.06	670.07	0.0%
1984	548.13	124.01	16.53	35.37	724.04	0.0%
1985	591.02	131.47	17.20	37.75	777.44	0.0%
1986	623.49	139.24	18.30	38.66	819.69	0.0%
1987	665.89	148.00	18.47	40.91	873.27	0.0%
1988	711.63	158.75	18.97	44.69	934.04	0.0%
1989	723.01	165.68	20.02	48.52	957.23	0.0%
1990	729.86	163.52	20.35	51.94	965.67	0.0%
1991	755.56	176.69	21.37	51.69	1,005.31	0.0%
1992	781.82	193.81	21.00	55.53	1,052.16	0.0%
1993	823.67	213.46	22.30	64.14	1,123.58	0.0%
1994	879.60	212.77	23.35	72.76	1,188.48	0.0%
1995	952.92	229.83	23.87	80.00	1,286.62	0.0%
1996	979.69	252.48	26.75	80.28	1,339.21	0.0%
1997	950.76	278.44	30.15	82.57	1,341.92	0.0%
1998	876.87	281.63	31.02	87.16	1,276.68	0.0%
1999	907.32	300.03	29.02	82.75	1,319.12	0.0%
2000	916.04	323.63	32.00	94.17	1,365.84	0.0%
2001	932.16	331.83	36.30	116.75	1,417.03	0.0%
2002	978.61	356.43	39.18	124.62	1,498.84	0.0%
2003	1,166.69	393.83	44.08	130.43	1,735.03	0.0%
2004	1,372.78	459.26	51.90	162.26	2,046.20	0.0%
2005	1,531.26	465.31	61.65	180.48	2,238.70	0.0%
2006	1,683.48	498.92	75.28	197.65	2,455.34	0.0%

N.B. The numbers in the Table 4A.1 series are database extracts, based on energy balance tables published by China's National Bureau of Statistics. The figures in the table represent Total Primary Energy Supply (Production + Imports - Exports + Stock Change, also called "Apparent Consumption" since it is equal in principle to primary energy consumption) on the basis of the energy balance identity of (TPES = Transformation + Losses + Final Energy Consumption). Because of statistical errors, particularly in the coal figures of the late 1990s, these numbers differ from the other series of primary energy consumption figures published by the National Bureau of Statistics, which reports the sum of Transformation + Losses + Final Energy Consumption (see the "Commercial Energy" figures in Table 4B.1). The difference between the two totals is reported as Statistical Error.

[1] This column is the difference between total primary energy consumption as reported by NBS and total primary energy consumption calculated as TPES. The variance shown here is roughly equal to the Statistical Error reported by NBS (because of differences in the database conversion of electricity to Mtce, the numbers are not identical).

Table 4A.1.3. Primary Energy Consumption (Mtoe)

Mtoe

DATABASE EXTRACTS

Sum of E	EBMaterial				
EBYear	Total Coal	Total Petroleum	Natural Gas	Primary Electricity	Grand Total
1980	312.87	88.03	13.29	16.46	430.65
1981	312.02	83.36	11.86	18.62	425.86
1982	329.23	82.76	11.11	21.13	444.23
1983	348.65	84.48	11.37	24.54	469.04
1984	383.68	86.80	11.57	24.76	506.82
1985	413.71	92.03	12.04	26.42	544.20
1986	436.43	97.46	12.81	27.06	573.77
1987	466.11	103.60	12.93	28.64	611.28
1988	498.13	111.12	13.28	31.28	653.81
1989	506.10	115.97	14.01	33.97	670.05
1990	510.89	114.46	14.24	36.36	675.95
1991	528.88	123.68	14.96	36.18	703.70
1992	547.26	135.66	14.70	38.87	736.50
1993	576.56	149.42	15.61	44.90	786.49
1994	615.71	148.93	16.35	50.93	831.92
1995	667.03	160.88	16.71	56.00	900.62
1996	685.77	176.73	18.73	56.20	937.43
1997	665.52	194.91	21.11	57.79	939.33
1998	613.80	197.14	21.72	61.01	893.66
1999	635.11	210.02	20.31	57.92	923.37
2000	641.22	226.54	22.40	65.91	956.07
2001	652.50	232.27	25.41	81.72	991.90
2002	685.02	249.50	27.42	87.23	1,049.17
2003	816.67	275.67	30.85	91.30	1,214.50
2004	960.92	321.48	36.33	113.58	1,432.31
2005	1,071.86	325.71	43.15	126.34	1,567.06
2006	1,178.41	349.24	52.70	138.35	1,718.70

N.B. The numbers in the Table 4A.1 series are database extracts, based on energy balance tables published by China's National Bureau of Statistics. The figures in the table represent Total Primary Energy Supply (Production + Imports - Exports + Stock Change, also called "Apparent Consumption" since it is equal in principle to primary energy consumption) on the basis of the energy balance identity of (TPES = Transformation + Losses + Final Energy Consumption). Because of statistical errors, particularly in the coal figures of the late 1990s, these numbers differ from the other series of primary energy consumption figures published by the National Bureau of Statistics, which reports the sum of Transformation + Losses + Final Energy Consumption (see the "Commercial Energy" figures in Table 4B.1). The difference between the two totals is reported as Statistical Error.

Table 4A.1.4. Primary Energy Consumption (Shares)

Shares

Sum of EBMaterial					
EBYea	Total Coal	Total Petroleum	Natural Gas	Primary Electricity	Grand Total
1980	72.7%	20.4%	3.1%	3.8%	100%
1981	73.3%	19.6%	2.8%	4.4%	100%
1982	74.1%	18.6%	2.5%	4.8%	100%
1983	74.3%	18.0%	2.4%	5.2%	100%
1984	75.7%	17.1%	2.3%	4.9%	100%
1985	76.0%	16.9%	2.2%	4.9%	100%
1986	76.1%	17.0%	2.2%	4.7%	100%
1987	76.3%	16.9%	2.1%	4.7%	100%
1988	76.2%	17.0%	2.0%	4.8%	100%
1989	75.5%	17.3%	2.1%	5.1%	100%
1990	75.6%	16.9%	2.1%	5.4%	100%
1991	75.2%	17.6%	2.1%	5.1%	100%
1992	74.3%	18.4%	2.0%	5.3%	100%
1993	73.3%	19.0%	2.0%	5.7%	100%
1994	74.0%	17.9%	2.0%	6.1%	100%
1995	74.1%	17.9%	1.9%	6.2%	100%
1996	73.2%	18.9%	2.0%	6.0%	100%
1997	70.9%	20.7%	2.2%	6.2%	100%
1998	68.7%	22.1%	2.4%	6.8%	100%
1999	68.8%	22.7%	2.2%	6.3%	100%
2000	67.1%	23.7%	2.3%	6.9%	100%
2001	65.8%	23.4%	2.6%	8.2%	100%
2002	65.3%	23.8%	2.6%	8.3%	100%
2003	67.2%	22.7%	2.5%	7.5%	100%
2004	67.1%	22.4%	2.5%	7.9%	100%
2005	68.4%	20.8%	2.8%	8.1%	100%
2006	68.6%	20.3%	3.1%	8.0%	100%

N.B. The numbers in the Table 4A.1 series are database extracts, based on energy balance tables published by China's National Bureau of Statistics. The figures in the table represent Total Primary Energy Supply (Production + Imports - Exports + Stock Change, also called "Apparent Consumption" since it is equal in principle to primary energy consumption) on the basis of the energy balance identity of (TPES = Transformation + Losses + Final Energy Consumption). Because of statistical errors, particularly in the coal figures of the late 1990s, these numbers differ from the other series of primary energy consumption figures published by the National Bureau of Statistics, which reports the sum of Transformation + Losses + Final Energy Consumption (see the "Commercial Energy" figures in Table 4B.1). The difference between the two totals is reported as Statistical Error.

Table 4A.1.5. Primary Energy Consumption (Annual Growth)

Annual Growth

Year	Total Coal	Total Petroleum	Natural Gas	Primary Electricity	Grand Total
1980					
1981	-0.3%	-5.3%	-10.7%	13.1%	-1.1%
1982	5.5%	-0.7%	-6.4%	13.5%	4.3%
1983	5.9%	2.1%	2.3%	16.1%	5.6%
1984	10.0%	2.8%	1.8%	0.9%	8.1%
1985	7.8%	6.0%	4.0%	6.7%	7.4%
1986	5.5%	5.9%	6.4%	2.4%	5.4%
1987	6.8%	6.3%	0.9%	5.8%	6.5%
1988	6.9%	7.3%	2.7%	9.2%	7.0%
1989	1.6%	4.4%	5.5%	8.6%	2.5%
1990	0.9%	-1.3%	1.7%	7.0%	0.9%
1991	3.5%	8.1%	5.0%	-0.5%	4.1%
1992	3.5%	9.7%	-1.7%	7.4%	4.7%
1993	5.4%	10.1%	6.2%	15.5%	6.8%
1994	6.8%	-0.3%	4.7%	13.4%	5.8%
1995	8.3%	8.0%	2.2%	9.9%	8.3%
1996	2.8%	9.9%	12.1%	0.3%	4.1%
1997	-3.0%	10.3%	12.7%	2.8%	0.2%
1998	-7.8%	1.1%	2.9%	5.6%	-4.9%
1999	3.5%	6.5%	-6.4%	-5.1%	3.3%
2000	1.0%	7.9%	10.3%	13.8%	3.5%
2001	1.8%	2.5%	13.4%	24.0%	3.7%
2002	5.0%	7.4%	7.9%	6.7%	5.8%
2003	19.2%	10.5%	12.5%	4.7%	15.8%
2004	17.7%	16.6%	17.7%	24.4%	17.9%
2005	11.5%	1.3%	18.8%	11.2%	9.4%
2006	9.9%	7.2%	22.1%	9.5%	9.7%

N.B. The numbers in the Table 4A.1 series are database extracts, based on energy balance tables published by China's National Bureau of Statistics. The figures in the table represent Total Primary Energy Supply (Production + Imports - Exports + Stock Change, also called "Apparent Consumption" since it is equal in principle to primary energy consumption) on the basis of the energy balance identity of (TPES = Transformation + Losses + Final Energy Consumption). Because of statistical errors, particularly in the coal figures of the late 1990s, these numbers differ from the other series of primary energy consumption figures published by the National Bureau of Statistics, which reports the sum of Transformation + Losses + Final Energy Consumption (see the "Commercial Energy" figures in Table 4B.1). The difference between the two totals is reported as Statistical Error.

Table 4A.1.6. Primary Energy Consumption

per capita

DATABASE EXTRACT

	kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of	EBMaterial			
EBYear	Total Coal	Total Petroleum	Natural Gas	Primary Electricity
1980	634.2	89.1	14.5	59.0
1981	623.9	83.2	12.7	65.8
1982	648.0	81.3	11.7	73.5
1983	677.2	81.9	11.9	84.3
1984	735.6	83.1	11.9	83.9
1985	782.0	86.9	12.2	88.3
1986	812.3	90.6	12.8	89.0
1987	853.3	94.7	12.7	92.6
1988	897.7	100.0	12.8	99.6
1989	898.5	102.8	13.4	106.6
1990	894.1	100.0	13.4	112.4
1991	913.6	106.7	13.9	110.5
1992	934.5	115.7	13.5	117.3
1993	973.4	126.0	14.1	134.0
1994	1027.9	124.1	14.7	150.3
1995	1101.9	132.7	14.8	163.5
1996	1121.1	144.3	16.4	162.4
1997	1077.1	157.5	18.3	165.3
1998	984.0	157.8	18.7	172.9
1999	1009.3	166.6	17.3	162.7
2000	1013.5	178.8	19.0	184.1
2001	1022.9	181.8	21.4	226.4
2002	1067.0	194.0	22.9	240.1
2003	1264.5	213.1	25.6	249.8
2004	1479.1	247.1	30.0	309.0
2005	1640.2	248.9	35.4	341.7
2006	1793.7	265.4	43.1	372.2

N.B. The numbers in the Table 4A.1 series are database extracts, based on energy balance tables published by China's National Bureau of Statistics. The figures in the table represent Total Primary Energy Supply (Production + Imports - Exports + Stock Change, also called "Apparent Consumption" since it is equal in principle to primary energy consumption) on the basis of the energy balance identity of (TPES = Transformation + Losses + Final Energy Consumption). Because of statistical errors, particularly in the coal figures of the late 1990s, these numbers differ from the other series of primary energy consumption figures published by the National Bureau of Statistics, which reports the sum of Transformation + Losses + Final Energy Consumption (see the "Commercial Energy" figures in Table 4B.1). The difference between the two totals is reported as Statistical Error.

Figure 4A.1. Primary Energy Consumption, by Fuel Source, 1980-2006

Figure 4A.2. Shares of Primary Energy Consumption, by Fuel Source, 1980-2006

4A.2.1. Final Energy Consumption by Province and Energy Source, 1999

Physical Units

Sum of EBAmount		EBMaterial	EBUom			
		Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
scoProvRegion	EBScopeName	Mt	Mt	TWh	bm3	Mtce
East	Anhui	33.0	3.2	31.3		47.1
	Fujian	10.9	6.1	32.6		31.3
	Jiangsu	35.0	10.6	79.1	0.0	80.8
	Jiangxi	12.1	2.1	18.1		22.3
	Shandong	46.4	11.4	80.5	0.3	90.8
	Shanghai	11.1	9.6	47.8	0.1	54.1
	Zhejiang	21.3	8.0	55.9		53.0
East Total		169.7	51.0	345.3	0.5	379.3
North	Beijing	13.1	5.7	31.5	0.4	39.9
	Hebei	52.8	5.3	70.2	0.6	91.3
	Inner Mongolia	21.5	1.4	23.7		33.1
	Shanxi	30.2	1.9	42.7	0.1	56.7
	Tianjin	9.3	4.5	19.8	0.3	25.2
North Total		126.8	18.8	187.9	1.4	246.3
NorthEast	Heilongjiang	19.8	10.2	40.4	1.7	52.4
	Jilin	17.3	4.3	26.6	0.3	34.3
	Liaoning	29.9	6.2	71.5	1.9	84.0
NorthEast Total		66.9	20.8	138.4	3.8	170.7
NorthWest	Gansu	12.3	3.2	27.5	0.0	28.3
	Ningxia	4.4	0.7	10.8	0.0	9.0
	Qinghai	4.4	0.5	10.1	0.3	8.7
	Shaanxi	12.5	2.9	25.0	0.3	26.2
	Xinjiang	15.5	4.0	15.8	1.1	27.1
NorthWest Total		49.1	11.4	89.3	1.8	99.3
SouthCentral	Guangdong	22.0	20.3	100.3	0.1	89.6
	Guangxi	14.6	2.2	26.6		27.4
	Hainan	0.6	1.2	3.4	0.4	4.3
	Henan	38.0	4.6	61.1	1.0	66.7
	Hubei	38.4	7.0	43.8	0.1	63.4
	Hunan	22.1	3.6	34.6		39.6
SouthCentral Total		135.8	38.9	269.7	1.6	290.9
SouthWest	Guizhou	28.8	1.2	25.9	0.6	36.1
	Sichuan	27.1	3.5	43.1	5.4	54.4
	Yunnan	11.3	1.6	27.2	0.5	27.0
	Chongqing	22.0	1.3	29.2	2.9	36.2
SouthWest Total		89.2	7.7	125.3	9.5	153.7
(blank)	China	515.7	186.6	1,144.3	18.7	1,298.0
(blank) Total		515.7	186.6	1,144.3	18.7	1,298.0

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.
The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.2. Final Energy Consumption by Province and Energy Source, 2000

Physical Units

EBYear	2000
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	35.12	3.15	33.89		49.99
	Fujian	11.35	4.26	37.27		30.84
	Jiangsu	29.49	13.30	90.77	0.02	85.97
	Jiangxi	10.77	2.17	19.72		22.44
	Shandong	36.56	12.77	100.05	0.43	96.21
	Shanghai	10.47	11.22	52.92	0.22	55.69
	Zhejiang	20.30	9.20	67.22		360.01
East Total		154.06	56.07	401.84	0.67	701.16
North	Beijing	12.54	6.07	35.03	0.58	42.20
	Hebei	53.78	5.81	76.12	0.72	97.30
	Inner Mongolia	22.24	1.64	25.61	0.00	35.15
	Shanxi	30.93	1.91	47.70	0.11	59.35
	Tianjin	11.19	4.97	22.10	0.48	28.72
North Total		130.69	20.40	206.55	1.90	262.71
NorthEast	Heilongjiang	16.90	11.06	37.96	1.79	51.66
	Jilin	18.85	3.99	27.42	0.24	35.54
	Liaoning	35.28	10.28	74.87	2.02	91.09
NorthEast Total		71.03	25.33	140.25	4.05	178.29
NorthWest	Gansu	12.25	3.59	28.44	0.02	29.44
	Qinghai	3.30	0.56	10.99	0.39	8.49
	Shaanxi	9.93	3.55	29.28	0.67	26.91
	Xinjiang	15.03	4.58	17.09	1.34	28.75
NorthWest Total		40.51	12.27	85.79	2.41	93.59
SouthCentral	Guangdong	22.05	20.21	124.02	0.01	98.59
	Guangxi	14.42	2.72	29.52		29.55
	Hainan	0.70	1.32	3.70	0.38	4.60
	Henan	37.57	4.80	66.55	1.08	69.80
	Hubei	37.42	7.05	50.30	0.09	65.41
	Hunan	18.72	4.04	36.96		38.82
SouthCentral Total		130.88	40.13	311.06	1.56	306.76
SouthWest	Chongqing	23.53	1.39	29.53	3.33	38.54
	Guizhou	27.33	1.32	31.80	0.57	37.65
	Sichuan	23.56	3.74	47.71	5.37	54.26
	Yunnan	12.81	1.77	29.16	0.52	28.92
SouthWest Total		87.23	8.21	138.19	9.78	159.37
(blank)	China	468.21	198.94	1,253.47	20.89	1,334.16
(blank) Total		468.21	198.94	1,253.47	20.89	1,334.16

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.3. Final Energy Consumption by Province and Energy Source, 2001

Physical Units

EBYear	2001
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	38.17	3.18	35.96		53.39
	Fujian	10.59	4.47	40.63		32.00
	Jiangsu	26.83	13.34	100.75	0.02	88.85
	Jiangxi	11.97	2.59	20.61		24.25
	Shandong	44.68	12.35	156.02	0.48	126.86
	Shanghai	10.54	12.25	56.13	0.20	58.02
	Zhejiang	20.50	10.03	85.53		68.04
East Total		163.29	58.21	495.63	0.71	451.40
North	Beijing	12.46	6.27	36.32	1.19	45.14
	Hebei	55.60	5.80	81.94	0.66	106.42
	Inner Mongolia	23.00	1.85	27.97	0.01	37.77
	Shanxi	31.58	2.21	51.78	0.16	70.58
	Tianjin	10.84	5.24	23.66	0.68	29.83
North Total		133.48	21.37	221.66	2.70	289.74
NorthEast	Heilongjiang	14.70	10.88	45.74	1.54	52.07
	Jilin	18.64	3.99	29.96	0.24	36.58
	Liaoning	31.96	11.19	76.38	1.89	94.70
NorthEast Total		65.29	26.07	152.08	3.67	183.35
NorthWest	Gansu	12.20	3.53	28.89	0.04	29.74
	Qinghai	3.18	0.52	10.51	0.58	8.43
	Shaanxi	13.15	3.74	32.15	1.08	31.31
	Xinjiang	13.90	4.88	18.46	2.05	30.40
NorthWest Total		42.42	12.66	90.01	3.76	99.88
SouthCentral	Guangdong	22.04	22.18	135.46		106.36
	Guangxi	14.67	3.25	30.61		31.11
	Hainan	0.67	1.43	3.95	0.53	4.87
	Henan	38.66	5.13	75.92	1.25	75.23
	Hubei	37.16	6.01	52.60	0.08	64.11
	Hunan	24.39	3.72	39.99		43.78
SouthCentral Total		137.59	41.72	338.55	1.86	325.46
SouthWest	Chongqing	17.95	1.41	26.66	2.66	32.58
	Guizhou	27.28	1.53	43.04	0.60	42.38
	Sichuan	21.97	4.14	52.16	5.88	56.61
	Yunnan	12.13	2.70	32.20	0.53	31.66
SouthWest Total		79.33	9.77	154.05	9.67	163.22
(blank)	China	456.12	203.57	1,369.00	23.87	1,391.51
(blank) Total		456.12	203.57	1,369.00	23.87	1,391.51

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.4. Final Energy Consumption by Province and Energy Source

Physical Units

EYear	2002
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	39.43	3.34	38.99		56.01
	Fujian	12.06	5.51	49.79		38.23
	Jiangsu	27.14	14.02	113.97	0.10	96.40
	Jiangxi	10.70	3.65	22.77		26.82
	Shandong	49.94	12.11	123.00	0.46	116.54
	Shanghai	10.07	13.83	61.19	0.27	61.49
	Zhejiang	23.41	10.74	94.86		85.60
East Total		172.76	63.20	504.57	0.84	481.09
North	Beijing	10.86	7.60	39.93	1.65	47.36
	Hebei	58.12	5.89	90.57	0.73	113.75
	Inner Mongolia	23.65	2.05	32.04	0.02	47.13
	Shanxi	35.61	2.35	59.07	0.19	83.44
	Tianjin	10.16	6.21	26.54	0.50	32.15
North Total		138.41	24.10	248.16	3.09	323.82
NorthEast	Heilongjiang	14.63	11.47	45.29	1.44	52.87
	Jilin	18.74	4.27	32.08	0.29	51.02
	Liaoning	28.63	11.28	80.97	1.88	97.74
NorthEast Total		62.00	27.02	158.33	3.60	201.63
NorthWest	Gansu	12.31	2.67	32.11	0.22	30.02
	Qinghai	3.04	0.49	12.55	1.11	9.82
	Shaanxi	13.54	4.55	34.96	1.40	34.42
	Xinjiang	14.28	4.65	21.04	2.06	31.89
NorthWest Total		43.17	12.35	100.66	4.79	106.15
SouthCentral	Guangdong	22.42	23.51	156.53		117.19
	Guangxi	12.68	3.82	32.99		31.96
	Henan	38.23	5.12	85.17	1.40	80.90
	Hubei	39.05	7.50	56.74	0.09	69.36
	Hunan	26.03	4.53	45.36		53.21
SouthCentral Total		138.41	44.47	376.80	1.49	352.63
SouthWest	Guizhou	29.15	1.61	47.05	0.55	45.50
	Sichuan	24.49	4.39	60.45	6.65	63.51
	Yunnan	12.83	3.14	36.09	0.51	36.21
	Chongqing	21.57	1.46	26.77	2.73	35.03
SouthWest Total		88.03	10.61	170.36	10.44	180.24
(blank)	China	426.92	219.83	1,516.28	25.74	1,474.00
(blank) Total		426.92	219.83	1,516.28	25.74	1,474.00

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.5. Final Energy Consumption by Province and Energy Source, 2003

Physical Units

EBYear	2003
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	40.77	3.96	44.54		60.42
	Fujian	13.47	6.34	58.54		43.76
	Jiangsu	28.88	15.62	138.00	0.06	111.23
	Jiangxi	11.65	4.55	27.69		31.09
	Shandong	53.54	16.30	139.57	0.85	130.51
	Shanghai	9.09	15.17	70.37	0.36	67.00
	Zhejiang	23.36	11.62	116.33		87.08
East Total		180.77	73.54	595.05	1.28	531.07
North	Beijing	11.53	7.41	42.73	1.91	50.03
	Hebei	61.86	6.16	104.19	0.79	125.62
	Inner Mongolia	27.40	2.31	40.66	0.20	49.64
	Shanxi	39.67	2.51	6.80	0.25	68.89
	Tianjin	10.16	6.36	29.39	0.06	33.23
North Total		150.62	24.75	223.76	3.21	327.42
NorthEast	Heilongjiang	16.34	10.04	48.61	1.33	52.79
	Jilin	21.06	5.61	33.55	0.29	43.45
	Liaoning	32.69	10.89	8.34	1.88	71.84
NorthEast Total		70.09	26.54	90.50	3.51	168.08
NorthWest	Gansu	12.47	2.56	37.22	0.67	32.45
	Ningxia	20.22	1.92	21.20	1.01	28.01
	Qinghai	3.03	0.56	15.02	1.41	11.44
	Shaanxi	13.63	4.17	39.37	1.81	36.53
	Xinjiang	14.88	5.70	23.06	3.16	36.23
NorthWest Total		64.23	14.91	135.87	8.06	144.66
SouthCentral	Guangdong	31.34	28.14	182.85	0.13	141.60
	Guangxi	15.34	4.02	38.24		38.08
	Hainan	1.69	1.64	5.29	1.57	8.00
	Henan	39.81	5.45	97.47	1.58	88.30
	Hubei	42.65	8.71	62.92	0.09	76.55
	Hunan	26.78	4.65	50.12		51.88
SouthCentral Total		157.61	52.60	436.90	3.36	404.42
SouthWest	Chongqing	14.93	1.50	27.00	2.85	29.80
	Guizhou	34.47	1.88	52.62	0.55	52.08
	Sichuan	35.96	5.14	68.34	7.07	77.18
	Yunnan	16.33	3.53	37.24	0.56	41.37
SouthWest Total		101.69	12.05	185.20	11.02	200.43
(blank)	China	490.45	240.63	1,777.09	30.52	1,689.79
(blank) Total		490.45	240.63	1,777.09	30.52	1,689.79

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.6. Final Energy Consumption by Province and Energy Source, 2004

Physical Units

EYear	2004
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	38.75	4.37	5.16	0.02	43.59
	Fujian	13.85	7.94	61.19	0.01	48.17
	Jiangsu	40.25	18.13	166.91	0.26	139.72
	Jiangxi	12.74	3.83	35.71		35.55
	Shandong	60.66	19.49	169.37	1.17	159.09
	Shanghai	10.44	18.45	77.70	0.70	75.59
	Zhejiang	32.10	13.08	133.14	0.03	103.43
East Total		208.78	85.30	649.18	2.18	605.14
North	Beijing	12.22	9.05	4.69	2.32	38.48
	Hebei	63.93	6.76	120.07	0.93	145.73
	Inner Mongolia	45.07	4.75	53.56	0.44	73.76
	Shanxi	41.59	3.01	78.03	0.03	100.74
	Tianjin	10.80	6.45	32.94	0.72	38.12
North Total		173.61	30.01	289.29	4.44	396.83
NorthEast	Heilongjiang	16.72	12.85	52.81	1.41	58.86
	Jilin	21.71	5.44	38.28	0.39	47.38
	Liaoning	32.45	12.78	99.83	1.58	110.89
NorthEast Total		70.88	31.08	190.91	3.38	217.12
NorthWest	Gansu	13.29	3.14	43.30	0.79	39.34
	Ningxia	9.23	0.65	0.50	1.15	18.75
	Qinghai	3.18	0.64	18.98	1.77	13.88
	Shaanxi	17.39	4.99	43.12	3.08	43.62
	Xinjiang	16.37	6.20	24.77	4.06	40.92
NorthWest Total		59.46	15.61	130.67	10.85	156.51
SouthCentral	Guangdong	24.28	30.50	220.20	0.11	156.95
	Guangxi	17.00	5.22	42.22	0.00	43.61
	Hainan	2.89	1.81	6.61	1.86	10.03
	Henan	53.44	7.62	119.08	1.92	111.18
	Hubei	45.48	9.36	69.94	0.09	82.55
	Hunan	30.42	5.72	66.26	0.01	63.67
SouthCentral Total		173.51	60.22	524.32	4.00	467.99
SouthWest	Chongqing	15.08	2.63	28.41	3.02	32.46
	Guizhou	40.55	2.01	55.22	0.50	57.97
	Sichuan	38.83	5.91	77.50	7.67	86.76
	Yunnan	15.15	1.77	29.16	0.52	31.54
SouthWest Total		109.60	12.32	190.30	11.70	208.73
(blank)	China	595.44	280.62	2,055.08	34.96	1,976.78
(blank) Total		595.44	280.62	2,055.08	34.96	1,976.78

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.7 Final Energy Consumption by Province and Energy Source, 2005

Physical Units

EBYear	2005
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	40.53	4.64	58.17	0.09	67.21
	Fujian	24.77	9.16	69.94	0.05	64.94
	Jiangsu	46.79	20.88	202.12	1.01	171.62
	Jiangxi	15.09	4.75	37.81	0.01	39.47
	Shandong	93.69	29.81	200.45	1.79	225.57
	Shanghai	10.56	21.22	87.27	1.20	85.17
	Zhejiang	35.46	17.17	154.00	0.16	122.71
East Total		266.90	107.64	809.76	4.31	776.70
North	Beijing	13.15	10.10	52.58	2.80	58.54
	Hebei	79.92	9.64	140.20	0.91	186.36
	Inner Mongolia	44.40	6.29	66.79	0.64	82.49
	Shanxi	42.91	3.68	89.25	0.05	108.27
	Tianjin	10.70	6.62	37.34	0.86	41.13
North Total		191.08	36.33	386.16	5.25	476.79
NorthEast	Heilongjiang	19.59	12.96	53.46	1.68	63.36
	Jilin	26.31	8.43	37.82	0.53	57.47
	Liaoning	36.32	17.20	104.85	1.48	126.57
NorthEast Total		82.22	38.58	196.13	3.70	247.39
NorthWest	Gansu	14.81	3.74	46.80	0.90	44.21
	Ningxia	11.33	1.26	28.98	0.66	23.55
	Qinghai	3.18	0.59	20.66	1.98	14.71
	Shaanxi	27.85	4.93	49.44	1.67	52.61
	Xinjiang	14.85	9.37	28.24	3.39	48.04
NorthWest Total		72.01	19.90	174.12	8.60	183.13
SouthCentral	Guangdong	28.55	39.47	254.30	0.14	187.24
	Guangxi	18.62	6.06	47.20	0.11	48.36
	Hainan	1.11	1.63	7.51	1.44	8.25
	Henan	75.27	8.41	130.09	2.18	136.07
	Hubei	46.74	11.91	80.44	0.61	95.08
	Hunan	58.87	7.86	61.56	0.10	89.44
SouthCentral Total		229.16	75.35	581.10	4.59	564.44
SouthWest	Chongqing	17.83	2.82	32.27	3.49	41.64
	Guizhou	42.76	2.37	52.24	0.54	59.59
	Sichuan	30.53	6.70	84.74	8.42	86.40
	Yunnan	26.28	4.56	50.57	0.61	61.42
SouthWest Total		117.40	16.45	219.81	13.07	249.06
(blank)	China	621.54	291.89	2,323.39	39.84	2,211.51
(blank) Total		621.54	291.89	2,323.39	39.84	2,211.51

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.8. Final Energy Consumption by Province and Energy Source, 2006

Physical Units

EBYear	2006
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	43.20	5.08	66.24	0.20	74.66
	Fujian	27.51	9.60	80.21	0.06	71.80
	Jiangsu	47.70	21.61	238.23	1.52	192.96
	Jiangxi	16.23	5.27	41.62	0.07	44.83
	Shandong	102.92	30.83	231.20	2.24	249.68
	Shanghai	10.28	26.30	93.86	1.66	95.45
	Zhejiang	35.21	18.25	180.36	0.27	137.91
East Total		283.06	116.94	931.73	6.01	867.29
North	Beijing	14.38	11.37	57.54	3.11	62.78
	Hebei	77.69	10.80	164.91	0.28	203.15
	Inner Mongolia	41.73	7.49	88.49	1.44	95.98
	Shanxi	45.38	4.10	103.61	0.55	121.11
	Tianjin	10.41	6.65	42.04	0.99	45.25
North Total		189.59	40.42	456.58	6.37	528.26
NorthEast	Heilongjiang	22.96	14.50	57.61	1.80	71.91
	Jilin	33.15	9.84	41.25	0.53	65.61
	Liaoning	38.38	19.78	116.06	1.31	142.02
NorthEast Total		94.49	44.12	214.91	3.64	279.53
NorthWest	Gansu	15.26	4.01	50.45	1.13	47.73
	Ningxia	10.27	1.41	35.93	0.77	27.03
	Qinghai	4.25	0.77	24.44	2.14	17.99
	Shaanxi	26.96	5.16	53.37	2.43	55.88
	Xinjiang	17.30	9.08	32.79	4.86	53.07
NorthWest Total		74.05	20.42	196.99	11.33	201.70
SouthCentral	Guangdong	33.75	44.40	280.13	0.52	209.73
	Guangxi	21.72	6.49	53.69	0.12	55.56
	Hainan	0.77	1.95	9.01	1.63	9.81
	Henan	87.23	8.63	144.42	3.00	155.82
	Hubei	51.26	13.07	89.48	0.64	106.04
	Hunan	59.42	8.53	70.28	0.43	97.08
SouthCentral Total		254.15	83.07	647.01	6.33	634.04
SouthWest	Chongqing	19.01	3.18	37.52	3.87	45.57
	Guizhou	44.15	2.82	58.20	0.50	65.28
	Sichuan	32.00	8.10	95.72	8.49	95.36
	Yunnan	26.59	5.18	58.03	0.55	65.17
SouthWest Total		121.75	19.28	249.46	13.40	271.38
(blank)	China	616.84	316.14	2,672.91	48.40	2,442.23
(blank) Total		616.84	316.14	2,672.91	48.40	2,442.23

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.9. Final Energy Consumption by Province and Energy Source (Mtce)

Mtce

EBYear	2002
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Sum of EBMtce		EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
East	Anhui	28.16	4.77	15.75		56.01
	Fujian	8.61	7.88	20.11		38.23
	Jiangsu	19.38	20.05	46.04	0.13	96.40
	Jiangxi	7.64	5.22	9.20		26.82
	Shandong	35.66	17.32	49.69	0.62	116.54
	Shanghai	7.19	19.78	24.72	0.36	61.49
	Zhejiang	16.71	15.36	38.32		85.60
East Total		123.35	90.37	203.84	1.11	481.09
North	Beijing	7.75	10.86	16.13	2.20	47.36
	Hebei	41.50	8.42	36.59	0.98	113.75
	Inner Mongolia	16.89	2.93	12.95	0.03	47.13
	Shanxi	25.43	3.37	23.87	0.26	83.44
	Tianjin	7.26	8.88	10.72	0.66	32.15
North Total		98.82	34.47	100.26	4.11	323.82
NorthEast	Heilongjiang	10.44	16.40	18.30	1.91	52.87
	Jilin	13.38	6.11	12.96	0.38	51.02
	Liaoning	20.44	16.13	32.71	2.50	97.74
NorthEast Total		44.27	38.64	63.97	4.79	201.63
NorthWest	Gansu	8.79	3.81	12.97	0.30	30.02
	Qinghai	2.17	0.70	5.07	1.48	9.82
	Shaanxi	9.67	6.50	14.12	1.86	34.42
	Xinjiang	10.19	6.65	8.50	2.73	31.89
NorthWest Total		30.82	17.66	40.67	6.37	106.15
SouthCentral	Guangdong	16.01	33.61	63.24		117.19
	Guangxi	9.05	5.47	13.33		31.96
	Henan	27.29	7.31	34.41	1.86	80.90
	Hubei	27.88	10.72	22.92	0.12	69.36
	Hunan	18.59	6.47	18.33		53.21
SouthCentral Total		98.82	63.59	152.23	1.98	352.63
SouthWest	Guizhou	20.81	2.31	19.01	0.73	45.50
	Sichuan	17.48	6.28	24.42	8.84	63.51
	Yunnan	9.16	4.49	14.58	0.68	36.21
	Chongqing	15.40	2.09	10.82	3.63	35.03
SouthWest Total		62.86	15.17	68.83	13.88	180.24
(blank)	China	304.82	314.35	612.58	34.24	1,474.00
(blank) Total		304.82	314.35	612.58	34.24	1,474.00

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.
No data exist for Hainan, Ningxia, and Tibet, 2002. The sum of provincial figures differ in cases from the total reported by NBS.

4A.2.10. Final Energy Consumption by Province and Energy Source (Mtce)

Mtce

EBYear	2003
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Sum of EBMtce		EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
East	Anhui	29.11	5.66	18.00		60.42
	Fujian	9.62	9.06	23.65		43.76
	Jiangsu	20.62	22.34	55.75	0.08	111.23
	Jiangxi	8.32	6.50	11.19		31.09
	Shandong	38.23	23.31	56.39	1.13	130.51
	Shanghai	6.49	21.69	28.43	0.48	67.00
	Zhejiang	16.68	16.61	47.00		87.08
East Total		129.07	105.16	240.40	1.70	531.07
North	Beijing	8.23	10.60	17.26	2.54	50.03
	Hebei	44.17	8.81	42.09	1.05	125.62
	Inner Mongolia	19.56	3.30	16.43	0.27	49.64
	Shanxi	28.32	3.59	2.75	0.33	68.89
	Tianjin	7.26	9.10	11.87	0.08	33.23
North Total		107.54	35.39	90.40	4.27	327.42
NorthEast	Heilongjiang	11.67	14.36	19.64	1.77	52.79
	Jilin	15.04	8.02	13.56	0.39	43.45
	Liaoning	23.34	15.58	3.37	2.50	71.84
NorthEast Total		50.04	37.96	36.56	4.66	168.08
NorthWest	Gansu	8.90	3.66	15.04	0.89	32.45
	Ningxia	14.44	2.74	8.56	1.34	28.01
	Qinghai	2.16	0.80	6.07	1.87	11.44
	Shaanxi	9.73	5.97	15.90	2.41	36.53
	Xinjiang	10.62	8.15	9.32	4.20	36.23
NorthWest Total		45.86	21.32	54.89	10.72	144.66
SouthCentral	Guangdong	22.38	40.24	73.87	0.17	141.60
	Guangxi	10.95	5.76	15.45		38.08
	Hainan	1.21	2.34	2.14	2.09	8.00
	Henan	28.42	7.79	39.38	2.09	88.30
	Hubei	30.45	12.45	25.42	0.13	76.55
	Hunan	19.12	6.64	20.25		51.88
SouthCentral Total		112.53	75.22	176.51	4.47	404.42
SouthWest	Guizhou	24.61	2.68	21.26	0.72	52.08
	Sichuan	25.68	7.35	27.61	9.40	77.18
	Yunnan	11.66	5.05	15.04	0.74	41.37
	Chongqing	10.66	2.15	10.91	3.79	29.80
SouthWest Total		72.60	17.23	74.82	14.66	200.43
(blank)	China	350.18	344.10	717.95	40.59	1,689.79
(blank) Total		350.18	344.10	717.95	40.59	1,689.79

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

4A.2.11. Final Energy Consumption by Province and Energy Source (Mtce)

Mtce

EYear	2004
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Sum of EBMtce		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	27.66	6.24	2.08	0.02	43.59
	Fujian	9.89	11.35	24.72	0.01	48.17
	Jiangsu	28.74	25.93	67.43	0.35	139.72
	Jiangxi	9.10	5.48	14.43		35.55
	Shandong	43.31	27.88	68.43	1.55	159.09
	Shanghai	7.45	26.39	31.39	0.93	75.59
	Zhejiang	22.92	18.70	53.79	0.04	103.43
East Total		149.07	121.97	262.27	2.90	605.14
North	Beijing	8.73	12.95	1.90	3.09	38.48
	Hebei	45.65	9.66	48.51	1.24	145.73
	Inner Mongolia	32.18	6.79	21.64	0.59	73.76
	Shanxi	29.69	4.30	31.52	0.04	100.74
	Tianjin	7.71	9.23	13.31	0.96	38.12
North Total		123.96	42.92	116.87	5.91	396.83
NorthEast	Heilongjiang	11.94	18.38	21.33	1.88	58.86
	Jilin	15.50	7.79	15.46	0.52	47.38
	Liaoning	23.17	18.27	40.33	2.10	110.89
NorthEast Total		50.61	44.44	77.13	4.50	217.12
NorthWest	Gansu	9.49	4.49	17.49	1.05	39.34
	Ningxia	6.59	0.93	0.20	1.53	18.75
	Qinghai	2.27	0.91	7.67	2.36	13.88
	Shaanxi	12.41	7.14	17.42	4.09	43.62
	Xinjiang	11.69	8.87	10.01	5.40	40.92
NorthWest Total		42.46	22.33	52.79	14.43	156.51
SouthCentral	Guangdong	17.34	43.61	88.96	0.15	156.95
	Guangxi	12.13	7.46	17.06	0.00	43.61
	Hainan	2.06	2.58	2.67	2.48	10.03
	Henan	38.16	10.90	48.11	2.56	111.18
	Hubei	32.47	13.38	28.26	0.13	82.55
	Hunan	21.72	8.17	26.77	0.01	63.67
SouthCentral Total		123.88	86.11	211.82	5.32	467.99
SouthWest	Chongqing	10.77	3.76	11.48	4.02	32.46
	Guizhou	28.95	2.87	22.31	0.66	57.97
	Sichuan	27.72	8.46	31.31	10.19	86.76
	Yunnan	10.82	2.53	11.78	0.69	31.54
SouthWest Total		78.25	17.61	76.88	15.56	208.73
(blank)	China	425.14	401.29	830.25	46.49	1976.78
(blank) Total		425.14	401.29	830.25	46.49	1976.78

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.
No data exist for Hainan, Ningxia, and Tibet, 2002. The sum of provincial figures differ in cases

4A.2.12. Final Energy Consumption by Province and Energy Source (Mtce)

Mtce

EYear	2005
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Sum of EBMtce		EBMaterial	EBUom			
		Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
scoProvRegion	EBScopeName	Mt	Mt	TWh	bm3	Mtce
East	Anhui	28.94	6.64	23.50	0.11	67.21
	Fujian	17.68	13.10	28.26	0.07	64.94
	Jiangsu	33.41	29.86	81.66	1.34	171.62
	Jiangxi	10.77	6.79	15.28	0.01	39.47
	Shandong	66.90	42.63	80.98	2.38	225.57
	Shanghai	7.54	30.35	35.26	1.59	85.17
	Zhejiang	25.32	24.56	62.22	0.22	122.71
East Total		190.56	153.92	327.14	5.73	776.70
North	Beijing	9.39	14.44	21.24	3.72	58.54
	Hebei	57.06	13.79	56.64	1.22	186.36
	Inner Mongolia	31.70	9.00	26.98	0.84	82.49
	Shanxi	30.64	5.26	36.06	0.06	108.27
	Tianjin	7.64	9.47	15.08	1.14	41.13
North Total		136.43	51.95	156.01	6.99	476.79
NorthEast	Heilongjiang	13.99	18.53	21.60	2.24	63.36
	Jilin	18.79	12.05	15.28	0.70	57.47
	Liaoning	25.93	24.59	42.36	1.97	126.57
NorthEast Total		58.71	55.17	79.24	4.91	247.39
NorthWest	Gansu	10.57	5.35	18.91	1.19	44.21
	Ningxia	8.09	1.80	11.71	0.88	23.55
	Qinghai	2.27	0.85	8.34	2.64	14.71
	Shaanxi	19.88	7.06	19.97	2.22	52.61
	Xinjiang	10.60	13.40	11.41	4.51	48.04
NorthWest Total		51.42	28.45	70.34	11.44	183.13
SouthCentral	Guangdong	20.39	56.45	102.74	0.19	187.24
	Guangxi	13.29	8.67	19.07	0.15	48.36
	Hainan	0.80	2.34	3.04	1.92	8.25
	Henan	53.74	12.03	52.56	2.90	136.07
	Hubei	33.37	17.04	32.50	0.81	95.08
	Hunan	42.03	11.24	24.87	0.13	89.44
SouthCentral Total		163.62	107.75	234.76	6.10	564.44
SouthWest	Chongqing	12.73	4.03	13.04	4.64	41.64
	Guizhou	30.53	3.40	21.11	0.72	59.59
	Sichuan	21.80	9.58	34.23	11.20	86.40
	Yunnan	18.76	6.52	20.43	0.81	61.42
SouthWest Total		83.82	23.53	88.80	17.38	249.06
(blank)	China	443.78	417.41	938.65	52.98	2211.51
(blank) Total		443.78	417.41	938.65	52.98	2211.51

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.
No data exist for Hainan, Ningxia, and Tibet, 2002. The sum of provincial figures differ in cases

4A.2.13. Final Energy Consumption by Province and Energy Source (Mtce)

Mtce

EYear	2006
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Sum of EBMtce		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Electricity	Natural Gas	Total Energy
		Mt	Mt	TWh	bm3	Mtce
East	Anhui	30.84	7.26	26.76	0.26	74.66
	Fujian	19.64	13.72	32.40	0.08	71.80
	Jiangsu	34.06	30.91	96.24	2.02	192.96
	Jiangxi	11.59	7.54	16.82	0.09	44.83
	Shandong	73.49	44.09	93.41	2.97	249.68
	Shanghai	7.34	37.60	37.92	2.21	95.45
	Zhejiang	25.14	26.10	72.87	0.36	137.91
East Total		202.10	167.23	376.42	7.99	867.29
North	Beijing	10.27	16.26	23.24	4.14	62.78
	Hebei	55.47	15.44	66.62	0.37	203.15
	Inner Mongolia	29.80	10.71	35.75	1.91	95.98
	Shanxi	32.40	5.87	41.86	0.73	121.11
	Tianjin	7.43	9.51	16.98	1.32	45.25
North Total		135.37	57.79	184.46	8.47	528.26
NorthEast	Heilongjiang	16.39	20.73	23.27	2.39	71.91
	Jilin	23.67	14.08	16.66	0.70	65.61
	Liaoning	27.41	28.29	46.89	1.74	142.02
NorthEast Total		67.46	63.10	86.82	4.84	279.53
NorthWest	Gansu	10.90	5.73	20.38	1.50	47.73
	Ningxia	7.34	2.01	14.52	1.03	27.03
	Qinghai	3.04	1.10	9.87	2.85	17.99
	Shaanxi	19.25	7.38	21.56	3.24	55.88
	Xinjiang	12.35	12.98	13.25	6.46	53.07
NorthWest Total		52.87	29.21	79.58	15.07	201.70
SouthCentral	Guangdong	24.10	63.50	113.17	0.69	209.73
	Guangxi	15.51	9.28	21.69	0.16	55.56
	Hainan	0.55	2.78	3.64	2.17	9.81
	Henan	62.28	12.35	58.35	3.99	155.82
	Hubei	36.60	18.69	36.15	0.85	106.04
	Hunan	42.42	12.20	28.39	0.57	97.08
SouthCentral Total		181.46	118.79	261.39	8.42	634.04
SouthWest	Chongqing	13.57	4.55	15.16	5.15	45.57
	Guizhou	31.52	4.03	23.51	0.66	65.28
	Sichuan	22.84	11.59	38.67	11.30	95.36
	Yunnan	18.99	7.40	23.44	0.72	65.17
SouthWest Total		86.93	27.56	100.78	17.83	271.38
(blank)	China	440.42	452.08	1079.86	64.38	2442.23
(blank) Total		440.42	452.08	1079.86	64.38	2442.23

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation. No data exist for Hainan, Ningxia, and Tibet, 2002. The sum of provincial figures differ in cases from the total reported by NBS.

Table 4A.3.1. Per-capita Final Energy Consumption by Province and Energy Type, 2002

Physical units

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBAmount/Capita2		EBMaterial			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	622.2	52.6	0.0	615.2
	Fujian	347.9	159.0	0.0	1,436.4
	Jiangsu	367.7	190.0	1.4	1,544.1
	Jiangxi	253.5	86.4	0.0	539.3
	Shandong	549.9	133.3	5.1	1,354.3
	Shanghai	620.0	851.1	16.8	3,765.3
	Zhejiang	503.7	231.1	0.0	2,041.3
East Total		469.9	171.9	4.6	1,372.6
North	Beijing	763.0	533.9	116.0	2,806.3
	Hebei	863.0	87.4	10.9	1,344.7
	Inner Mongolia	994.1	86.1	0.8	1,347.0
	Shanxi	1,081.2	71.5	5.8	1,793.4
	Tianjin	1,009.4	616.9	49.2	2,635.5
North Total		932.8	162.4	20.8	1,672.4
NorthEast	Heilongjiang	383.6	300.8	37.7	1,187.7
	Jilin	694.5	158.4	10.6	1,188.6
	Liaoning	681.2	268.3	44.8	1,926.4
NorthEast Total		578.7	252.2	33.6	1,477.7
NorthWest	Gansu	474.8	102.8	8.6	1,238.2
	Qinghai	574.2	92.6	210.2	2,372.4
	Shaanxi	368.5	123.8	38.1	951.6
	Xinjiang	749.4	244.0	107.9	1,104.5
NorthWest Total		496.1	141.9	55.1	1,156.9
SouthCentral	Guangdong	285.3	299.1	0.0	1,991.7
	Guangxi	262.9	79.3	0.0	684.2
	Henan	397.6	53.2	14.5	885.9
	Hubei	652.2	125.2	1.5	947.6
	Hunan	392.7	68.3	0.0	5,803.6
SouthCentral Total		396.5	127.4	9.5	2,051.4
SouthWest	Chongqing	694.1	47.1	87.8	861.6
	Guizhou	759.6	42.1	14.3	1,226.1
	Sichuan	282.3	50.6	76.6	697.0
	Yunnan	296.2	72.5	11.9	832.9
SouthWest Total		441.3	53.2	52.3	853.9
(blank)	China	332.4	171.1	20.0	1,180.4
(blank) Total		332.4	171.1	20.0	1,180.4

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

No data exist for Hainan, Ningxia, and Tibet, 2002.

Table 4A.3.2. Per-capita Final Energy Consumption by Province and Energy Type, 2002

kgce/capita

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBMtce/Capita2		EBMaterial			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	444.2	75.3	0.0	248.6
	Fujian	248.4	227.4	0.0	580.3
	Jiangsu	262.5	271.6	1.8	623.8
	Jiangxi	181.0	123.6	0.0	217.9
	Shandong	392.6	190.7	6.8	547.2
	Shanghai	442.7	1,217.1	22.3	1,521.2
	Zhejiang	359.6	330.5	0.0	824.7
East Total		335.5	245.8	6.1	554.5
North	Beijing	544.8	763.4	154.3	1,133.8
	Hebei	616.2	125.0	14.5	543.3
	Inner Mongolia	709.8	123.2	1.1	544.2
	Shanxi	772.0	102.2	7.8	724.5
	Tianjin	720.7	882.1	65.4	1,064.7
North Total		666.0	232.3	27.7	675.7
NorthEast	Heilongjiang	273.9	430.1	50.1	479.8
	Jilin	495.9	226.5	14.0	480.2
	Liaoning	486.4	383.7	59.5	778.3
NorthEast Total		413.2	360.6	44.7	597.0
NorthWest	Gansu	339.0	147.1	11.4	500.2
	Qinghai	410.0	132.5	279.6	958.4
	Shaanxi	263.1	177.0	50.7	384.4
	Xinjiang	535.1	348.9	143.5	446.2
NorthWest Total		354.2	203.0	73.2	467.4
SouthCentral	Guangdong	203.7	427.7	0.0	804.7
	Guangxi	187.7	113.4	0.0	276.4
	Henan	283.9	76.1	19.3	357.9
	Hubei	465.7	179.1	2.0	382.8
	Hunan	280.4	97.7	0.0	2,344.7
SouthCentral Total		283.1	182.2	12.7	828.8
SouthWest	Chongqing	495.6	67.3	116.8	348.1
	Guizhou	542.3	60.2	19.0	495.4
	Sichuan	201.6	72.4	101.9	281.6
	Yunnan	211.5	103.7	15.8	336.5
SouthWest Total		315.1	76.0	69.6	345.0
(blank)	China	237.3	244.7	26.7	476.9
(blank) Total		237.3	244.7	26.7	476.9

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

No data exist for Hainan, Ningxia, and Tibet, 2002.

Table 4A.3.3. Per-capita Final Energy Consumption by Province and Energy Type, 2003

Physical units

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBAmount/Capita2	EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	636.1	61.7	0.0	694.9
	Fujian	386.2	181.6	0.0	1,678.2
	Jiangsu	389.9	210.9	0.8	1,863.3
	Jiangxi	273.9	106.9	0.0	651.0
	Shandong	586.8	178.6	9.3	1,529.6
	Shanghai	531.4	886.4	21.2	4,112.9
Zhejiang		499.3	248.2	0.0	2,485.7
East Total		487.6	198.4	7.0	1,605.0
North	Beijing	792.0	509.0	131.4	2,934.4
	Hebei	913.8	91.0	11.6	1,539.2
	Inner Mongolia	1,151.1	97.0	8.6	1,708.5
	Shanxi	1,197.1	75.8	7.5	205.2
	Tianjin	1,005.4	629.1	5.8	2,906.5
North Total		1,008.8	165.8	21.5	1,498.7
NorthEast	Heilongjiang	428.3	263.2	34.9	1,274.2
	Jilin	778.8	207.4	10.8	1,240.8
	Liaoning	776.6	258.8	44.7	198.0
NorthEast Total		653.3	247.4	32.7	843.5
NorthWest	Gansu	479.0	98.3	25.8	1,430.0
	Ningxia	3,486.6	330.3	174.1	3,655.2
	Qinghai	567.8	104.8	263.1	2,812.0
	Shaanxi	369.3	113.1	49.2	1,066.9
	Xinjiang	769.2	294.7	163.3	1,192.3
NorthWest Total		687.6	159.6	86.3	1,454.5
SouthCentral	Guangdong	394.1	353.8	1.6	2,298.9
	Guangxi	315.9	82.9	0.0	787.4
	Hainan	208.6	201.7	193.3	652.4
	Henan	411.8	56.3	16.3	1,008.3
	Hubei	710.6	145.1	1.6	1,048.3
	Hunan	401.9	69.7	0.0	752.2
SouthCentral Total		438.4	146.3	13.8	1,215.2
SouthWest	Chongqing	476.9	48.0	91.1	862.6
	Guizhou	890.8	48.5	14.1	1,359.8
	Sichuan	413.3	59.1	81.2	785.6
	Yunnan	373.1	80.7	12.8	850.9
SouthWest Total		506.5	60.0	54.9	922.5
(blank)	China	379.5	186.2	23.6	1,375.2
(blank) Total		379.5	186.2	23.6	1,375.2

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.4. Per-capita Final Energy Consumption by Province and Energy Type, 2003

kgce/capita

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBMtce/Capita2		EBMaterial			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	454.2	88.3	0.0	280.7
	Fujian	275.8	259.8	0.0	678.0
	Jiangsu	278.4	301.6	1.1	752.8
	Jiangxi	195.5	152.8	0.0	263.0
	Shandong	419.0	255.4	12.4	617.9
	Shanghai	379.4	1,267.5	28.2	1,661.6
	Zhejiang	356.5	354.9	0.0	1,004.2
East Total		348.1	283.7	9.3	648.4
North	Beijing	565.5	727.9	174.7	1,185.5
	Hebei	652.5	130.1	15.5	621.8
	Inner Mongolia	821.9	138.7	11.4	690.2
	Shanxi	854.7	108.4	10.0	82.9
	Tianjin	717.9	899.6	7.7	1,174.2
North Total		720.3	237.1	28.6	605.5
NorthEast	Heilongjiang	305.8	376.4	46.4	514.8
	Jilin	556.0	296.6	14.3	501.3
	Liaoning	554.5	370.1	59.5	80.0
NorthEast Total		466.4	353.8	43.4	340.8
NorthWest	Gansu	342.0	140.6	34.3	577.7
	Ningxia	2,489.4	472.4	231.6	1,476.7
	Qinghai	405.4	149.9	349.9	1,136.0
	Shaanxi	263.7	161.7	65.4	431.0
	Xinjiang	549.2	421.4	217.2	481.7
NorthWest Total		490.9	228.2	114.8	587.6
SouthCentral	Guangdong	281.4	505.9	2.1	928.8
	Guangxi	225.5	118.5	0.0	318.1
	Hainan	149.0	288.4	257.1	263.6
	Henan	294.0	80.6	21.7	407.4
	Hubei	507.4	207.4	2.1	423.5
	Hunan	286.9	99.7	0.0	303.9
SouthCentral Total		313.0	209.2	18.3	490.9
SouthWest	Chongqing	340.5	68.6	121.1	348.5
	Guizhou	636.0	69.4	18.7	549.4
	Sichuan	295.1	84.5	108.0	317.4
	Yunnan	266.4	115.4	17.0	343.8
SouthWest Total		361.7	85.8	73.0	372.7
(blank)	China	271.0	266.3	31.4	555.6
(blank) Total		271.0	266.3	31.4	555.6

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.5. Per-capita Final Energy Consumption by Province and Energy Type, 2004

Physical units

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBAmount/Capita2	EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	599.7	67.6	0.2	79.9
	Fujian	394.4	226.1	0.2	1,742.9
	Jiangsu	541.5	244.0	3.5	2,245.5
	Jiangxi	297.5	89.4	0.0	833.5
	Shandong	660.8	212.4	12.7	1,845.0
	Shanghai	599.0	1,059.2	40.2	4,460.3
	Zhejiang	680.0	277.1	0.7	2,820.8
East Total		559.3	228.5	6.6	1,739.0
North	Beijing	818.7	606.4	155.5	314.4
	Hebei	938.9	99.2	13.7	1,763.4
	Inner Mongolia	1,890.3	199.1	18.5	2,246.6
	Shanxi	1,247.0	90.1	0.8	2,339.6
	Tianjin	1,055.1	630.1	70.2	3,216.6
North Total		1,154.0	199.5	29.5	1,922.8
NorthEast	Heilongjiang	438.0	336.7	37.0	1,383.4
	Jilin	801.5	201.0	14.4	1,413.0
	Liaoning	769.5	303.0	37.5	2,367.3
NorthEast Total		659.8	289.3	31.5	1,777.1
NorthWest	Gansu	507.3	120.0	30.0	1,653.3
	Ningxia	1,569.5	110.1	195.9	84.7
	Qinghai	590.8	118.0	329.1	3,520.4
	Shaanxi	469.3	134.7	83.0	1,163.9
	Xinjiang	834.1	315.8	206.9	1,261.8
NorthWest Total		631.6	165.9	115.3	1,388.0
SouthCentral	Guangdong	292.4	367.3	1.4	2,651.8
	Guangxi	347.6	106.8	0.0	863.7
	Hainan	353.0	220.8	227.8	807.8
	Henan	550.0	78.4	19.8	1,225.5
	Hubei	756.0	155.6	1.6	1,162.6
	Hunan	454.1	85.3	0.1	989.3
SouthCentral Total		476.1	165.2	11.0	1,438.8
SouthWest	Chongqing	482.9	84.1	96.8	910.1
	Guizhou	1,038.6	51.5	12.8	1,414.5
	Sichuan	445.0	67.8	87.9	888.3
	Yunnan	343.1	40.0	11.7	660.5
SouthWest Total		543.5	61.1	58.0	943.7
(blank)	China	458.1	215.9	26.9	1,581.0
(blank) Total		458.1	215.9	26.9	1,581.0

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.6. Per-capita Final Energy Consumption by Province and Energy Type, 2004

kgce/capita

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBMtc/Capital2	EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	428.2	96.6	0.3	32.3
	Fujian	281.6	323.3	0.2	704.1
	Jiangsu	386.6	348.9	4.7	907.2
	Jiangxi	212.4	127.9	0.0	336.7
	Shandong	471.8	303.7	16.9	745.4
	Shanghai	427.7	1,514.7	53.5	1,802.0
	Zhejiang	485.5	396.2	0.9	1,139.6
East Total		399.3	326.7	8.8	702.6
North	Beijing	584.6	867.2	206.8	127.0
	Hebei	670.4	141.9	18.2	712.4
	Inner Mongolia	1,349.7	284.7	24.7	907.6
	Shanxi	890.4	128.9	1.1	945.2
	Tianjin	753.3	901.1	93.4	1,299.5
North Total		823.9	285.3	39.3	776.8
NorthEast	Heilongjiang	312.7	481.5	49.2	558.9
	Jilin	572.3	287.4	19.1	570.9
	Liaoning	549.4	433.4	49.9	956.4
NorthEast Total		471.1	413.7	41.9	717.9
NorthWest	Gansu	362.2	171.5	39.9	667.9
	Ningxia	1,120.7	157.4	260.6	34.2
	Qinghai	421.9	168.7	437.7	1,422.2
	Shaanxi	335.1	192.6	110.5	470.2
	Xinjiang	595.6	451.7	275.1	509.8
NorthWest Total		451.0	237.2	153.3	560.8
SouthCentral	Guangdong	208.8	525.2	1.8	1,071.3
	Guangxi	248.2	152.7	0.1	348.9
	Hainan	252.0	315.8	302.9	326.4
	Henan	392.7	112.1	26.3	495.1
	Hubei	539.8	222.5	2.1	469.7
	Hunan	324.2	122.0	0.1	399.7
SouthCentral Total		339.9	236.3	14.6	581.3
SouthWest	Chongqing	344.8	120.3	128.7	367.7
	Guizhou	741.5	73.6	17.0	571.5
	Sichuan	317.7	96.9	116.8	358.9
	Yunnan	245.0	57.2	15.6	266.8
SouthWest Total		388.0	87.3	77.2	381.2
(blank)	China	327.1	308.7	35.8	638.7
(blank) Total		327.1	308.7	35.8	638.7

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.7. Per-capita Final Energy Consumption by Province and Energy Type, 2005

Physical units

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBAmount/Capita2	EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	662.3	75.8	1.4	950.4
	Fujian	700.6	259.1	1.4	1,978.6
	Jiangsu	626.0	279.3	13.5	2,703.9
	Jiangxi	350.0	110.2	0.3	877.2
	Shandong	1,013.1	322.3	19.3	2,167.5
	Shanghai	594.2	1,193.7	67.4	4,908.2
	Zhejiang	723.9	350.6	3.3	3,144.1
East Total		714.3	288.1	11.5	2,167.2
North	Beijing	854.8	656.6	182.1	3,418.8
	Hebei	1,166.6	140.7	13.3	2,046.4
	Inner Mongolia	1,860.9	263.7	26.6	2,799.4
	Shanxi	1,278.9	109.6	1.4	2,660.1
	Tianjin	1,026.0	634.9	82.1	3,579.8
North Total		1,259.3	239.4	34.6	2,545.0
NorthEast	Heilongjiang	512.8	339.2	44.1	1,399.4
	Jilin	968.9	310.3	19.5	1,392.6
	Liaoning	860.4	407.5	35.1	2,483.9
NorthEast Total		764.3	358.7	34.3	1,823.3
NorthWest	Gansu	570.9	144.2	34.5	1,804.0
	Ningxia	1,901.4	211.4	111.2	4,863.1
	Qinghai	585.7	109.3	365.4	3,803.9
	Shaanxi	748.5	132.7	44.9	1,329.1
	Xinjiang	738.7	466.1	168.6	1,405.1
NorthWest Total		761.0	210.3	90.9	1,840.0
SouthCentral	Guangdong	310.6	429.3	1.5	2,765.9
	Guangxi	399.5	130.1	2.4	1,012.8
	Hainan	134.6	197.4	174.4	907.5
	Henan	802.4	89.7	23.3	1,386.9
	Hubei	818.6	208.7	10.7	1,408.8
	Hunan	930.6	124.2	1.6	973.1
SouthCentral Total		634.8	208.7	12.7	1,609.8
SouthWest	Chongqing	637.2	100.8	124.7	1,153.2
	Guizhou	1,146.3	63.7	14.6	1,400.6
	Sichuan	371.8	81.6	102.6	1,031.9
	Yunnan	590.6	102.5	13.8	1,136.4
SouthWest Total		611.8	85.7	68.1	1,145.5
(blank)	China	475.3	223.2	30.5	1,776.9
(blank) Total		475.3	223.2	30.5	1,776.9

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.8. Per-capita Final Energy Consumption by Province and Energy Type, 2005

kgce/capita

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBMtce/Capita2	EBMaterial				
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	472.9	108.4	1.8	384.0
	Fujian	500.2	370.6	1.9	799.3
	Jiangsu	446.9	399.4	17.9	1,092.4
	Jiangxi	249.9	157.5	0.3	354.4
	Shandong	723.4	460.9	25.7	875.7
	Shanghai	424.2	1,707.0	89.6	1,982.9
	Zhejiang	516.9	501.3	4.4	1,270.2
East Total		510.0	411.9	15.3	875.5
North	Beijing	610.3	939.0	242.1	1,381.2
	Hebei	832.9	201.2	17.7	826.8
	Inner Mongolia	1,328.7	377.1	35.4	1,130.9
	Shanxi	913.1	156.7	1.9	1,074.7
	Tianjin	732.6	908.0	109.2	1,446.2
North Total		899.2	342.4	46.0	1,028.2
NorthEast	Heilongjiang	366.1	485.0	58.6	565.4
	Jilin	691.8	443.7	26.0	562.6
	Liaoning	614.3	582.7	46.7	1,003.5
NorthEast Total		545.7	512.9	45.7	736.6
NorthWest	Gansu	407.6	206.2	45.9	728.8
	Ningxia	1,357.6	302.3	148.0	1,964.7
	Qinghai	418.2	156.3	486.0	1,536.8
	Shaanxi	534.5	189.7	59.8	536.9
	Xinjiang	527.4	666.5	224.2	567.7
NorthWest Total		543.4	300.7	120.9	743.4
SouthCentral	Guangdong	221.7	614.0	2.0	1,117.4
	Guangxi	285.3	186.0	3.2	409.2
	Hainan	96.1	282.3	231.9	366.6
	Henan	572.9	128.2	30.9	560.3
	Hubei	584.5	298.4	14.2	569.1
	Hunan	664.4	177.6	2.1	393.1
SouthCentral Total		453.3	298.5	16.9	650.4
SouthWest	Chongqing	455.0	144.2	165.9	465.9
	Guizhou	818.4	91.0	19.4	565.8
	Sichuan	265.4	116.6	136.4	416.9
	Yunnan	421.7	146.6	18.3	459.1
SouthWest Total		436.8	122.6	90.6	462.8
(blank)	China	339.4	319.2	40.5	717.9
(blank) Total		339.4	319.2	40.5	717.9

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.9. Per-capita Final Energy Consumption by Province and Energy Type, 2006

Physical units

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBAmount/Capita2		EBMaterial			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	663.8	67.6	3.2	845.4
	Fujian	563.4	215.1	1.6	1,850.7
	Jiangsu	501.3	238.7	10.9	2,358.8
	Jiangxi	314.7	104.2	1.6	752.2
	Shandong	831.2	233.5	14.7	1,926.0
	Shanghai	591.8	1,166.5	56.2	4,507.3
	Zhejiang	608.8	301.2	5.4	2,858.8
East Total		612.5	242.1	12.3	1,929.9
North	Beijing	840.3	631.5	158.6	3,244.6
	Hebei	996.2	122.4	7.4	1,873.9
	Inner Mongolia	1,368.9	199.8	30.5	2,523.8
	Shanxi	1,214.4	96.8	11.1	2,439.3
	Tianjin	988.3	617.9	71.3	3,293.9
North Total		1,087.4	213.9	31.4	2,336.3
NorthEast	Heilongjiang	492.2	340.0	42.4	1,347.5
	Jilin	957.0	260.4	15.0	1,352.4
	Liaoning	790.8	366.5	37.7	2,325.0
NorthEast Total		726.8	330.4	33.6	1,733.4
NorthWest	Gansu	530.3	128.3	25.9	1,588.0
	Ningxia	1,701.1	232.9	127.6	5,948.5
	Qinghai	677.1	117.2	302.1	3,434.6
	Shaanxi	546.7	131.0	51.8	1,192.3
	Xinjiang	798.4	347.1	174.8	1,361.2
NorthWest Total		642.5	179.6	88.4	1,631.5
SouthCentral	Guangdong	327.3	395.7	5.6	2,544.2
	Guangxi	360.5	108.1	2.6	908.6
	Hainan	91.5	232.7	194.9	1,078.2
	Henan	660.1	72.3	23.1	1,208.0
	Hubei	773.2	176.1	6.2	1,251.8
	Hunan	658.8	100.7	6.7	891.5
SouthCentral Total		551.4	179.1	15.1	1,438.0
SouthWest	Chongqing	686.0	78.5	111.5	1,086.8
	Guizhou	965.2	58.4	13.7	1,385.9
	Sichuan	335.4	74.2	89.9	927.3
	Yunnan	447.2	94.4	12.0	1,067.6
SouthWest Total		535.6	76.3	60.9	1,071.9
(blank)	China	423.2	207.6	27.6	1,593.9
(blank) Total		423.2	207.6	27.6	1,593.9

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.3.10. Per-capita Final Energy Consumption by Province and Energy Type, 2006

kgce/capita

		kg/cap	kg/cap	cu m/cap	kWh/cap
Sum of EBMtce/Capita2		EBMaterial			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity
East	Anhui	474.0	96.7	4.2	341.5
	Fujian	402.3	307.6	2.1	747.7
	Jiangsu	357.9	341.3	14.4	953.0
	Jiangxi	224.7	149.0	2.1	303.9
	Shandong	593.5	333.9	19.5	778.1
	Shanghai	422.5	1,668.1	74.7	1,820.9
	Zhejiang	434.7	430.7	7.2	1,155.0
East Total		437.3	346.1	16.3	779.7
North	Beijing	600.0	903.1	210.9	1,310.8
	Hebei	711.3	175.0	9.9	757.1
	Inner Mongolia	977.4	285.7	40.6	1,019.6
	Shanxi	867.1	138.5	14.8	985.5
	Tianjin	705.6	883.6	94.9	1,330.7
North Total		776.4	305.9	41.7	943.9
NorthEast	Heilongjiang	351.4	486.3	56.3	544.4
	Jilin	683.3	372.4	20.0	546.4
	Liaoning	564.7	524.1	50.1	939.3
NorthEast Total		518.9	472.5	44.7	700.3
NorthWest	Gansu	378.6	183.5	34.5	641.6
	Ningxia	1,214.6	333.1	169.8	2,403.2
	Qinghai	483.4	167.6	401.8	1,387.6
	Shaanxi	390.3	187.4	68.8	481.7
	Xinjiang	570.1	496.3	232.4	549.9
NorthWest Total		458.7	256.9	117.5	659.1
SouthCentral	Guangdong	233.7	565.8	7.4	1,027.9
	Guangxi	257.4	154.6	3.4	367.1
	Hainan	65.3	332.8	259.2	435.6
	Henan	471.3	103.5	30.8	488.0
	Hubei	552.0	251.8	8.3	505.7
	Hunan	470.4	144.0	8.9	360.2
SouthCentral Total		393.7	256.2	20.0	581.0
SouthWest	Chongqing	489.8	112.3	148.4	439.1
	Guizhou	689.1	83.5	18.3	559.9
	Sichuan	239.5	106.1	119.6	374.6
	Yunnan	319.3	134.9	16.0	431.3
SouthWest Total		382.4	109.1	81.0	433.0
(blank)	China	302.1	296.9	36.7	643.9
(blank) Total		302.1	296.9	36.7	643.9

N.B. The figures in this table represent final energy use, with electricity counted at the primary energy value of the average heat rate of power generation.

Table 4A.4.1. End-Use Energy Consumption by Sector (Mtce)

Mtce

Sum of	EBProcess								
EBYear	Industry	Agriculture	Transportation	Residential consumption	Commercial consumption	Construction	Non-Material Sectors	Other	Grand Total
1980	373.5	33.7	27.7	91.6	4.9	9.3	17.6		558.3
1981	364.5	33.8	28.2	96.1	5.6	7.7	17.3		553.2
1982	383.9	34.3	29.9	98.7	6.0	8.4	18.1		579.2
1983	410.5	35.4	31.2	104.2	6.7	9.4	19.6		617.0
1984	441.7	37.7	33.1	112.6	7.6	10.0	21.0		663.8
1985	470.1	39.6	35.6	127.0	7.4	12.8	23.9		716.5
1986	504.5	41.6	38.5	130.8	8.1	12.1	25.0		760.5
1987	546.1	44.0	39.9	137.9	8.9	12.4	27.1		816.3
1988	585.2	46.1	41.8	148.8	10.5	11.4	30.8		874.7
1989	612.1	46.5	43.3	148.6	11.6	12.5	32.7		907.4
1990	618.6	47.6	43.3	149.9	12.0	11.9	33.9		917.2
1991	651.7	50.2	45.5	151.8	12.2	12.6		38.9	962.8
1992	695.1	49.6	48.2	147.2	13.7	13.7		42.6	1,010.0
1993	753.1	47.4	50.8	149.5	18.5	13.1		53.3	1,085.7
1994	809.1	50.9	51.3	147.7	18.2	13.4		54.5	1,145.1
1995	896.3	55.3	56.0	157.4	20.2	13.4		45.0	1,243.6
1996	932.9	57.4	56.7	172.7	22.5	14.6		54.6	1,311.5
1997	929.7	59.0	72.1	165.1	23.8	11.8		46.4	1,307.9
1998	915.3	58.9	79.1	146.2	25.9	16.4		51.8	1,293.7
1999	877.1	60.8	89.3	152.1	29.2	20.5		55.7	1,284.7
2000	903.5	61.8	96.4	160.3	30.9	22.3		58.9	1,334.2
2001	938.7	66.0	99.7	168.3	33.5	23.4		61.8	1,391.5
2002	996.7	68.3	107.6	178.2	36.4	26.6		64.9	1,478.7
2003	1,156.5	68.7	123.8	197.3	43.2	29.8		70.5	1,689.8
2004	1,372.7	78.4	146.7	212.6	50.4	34.1		81.9	1,976.8
2005	1,550.2	82.2	161.4	236.7	52.9	35.8		92.3	2,211.5
2006	1,715.6	87.2	180.2	259.5	58.4	39.2		102.1	2,442.2

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other"; post-1999 data were revised in 2005.

Table 4A.4.2. End-Use Energy Consumption by Sector (Shares)

Shares

Sum of E	EBProcess								
EBYear	Industry	Agriculture	Transportation	Residential consumption	Commercial consumption	Construction	Non-Material Sectors	Other	Grand Total
1980	66.9%	6.0%	5.0%	16.4%	0.9%	1.7%	3.2%	-	100.0%
1981	65.9%	6.1%	5.1%	17.4%	1.0%	1.4%	3.1%	-	100.0%
1982	66.3%	5.9%	5.2%	17.0%	1.0%	1.4%	3.1%	-	100.0%
1983	66.5%	5.7%	5.1%	16.9%	1.1%	1.5%	3.2%	-	100.0%
1984	66.5%	5.7%	5.0%	17.0%	1.1%	1.5%	3.2%	-	100.0%
1985	65.6%	5.5%	5.0%	17.7%	1.0%	1.8%	3.3%	-	100.0%
1986	66.3%	5.5%	5.1%	17.2%	1.1%	1.6%	3.3%	-	100.0%
1987	66.9%	5.4%	4.9%	16.9%	1.1%	1.5%	3.3%	-	100.0%
1988	66.9%	5.3%	4.8%	17.0%	1.2%	1.3%	3.5%	-	100.0%
1989	67.5%	5.1%	4.8%	16.4%	1.3%	1.4%	3.6%	-	100.0%
1990	67.4%	5.2%	4.7%	16.3%	1.3%	1.3%	3.7%	-	100.0%
1991	67.7%	5.2%	4.7%	15.8%	1.3%	1.3%	-	4.0%	100.0%
1992	68.8%	4.9%	4.8%	14.6%	1.4%	1.4%	-	4.2%	100.0%
1993	69.4%	4.4%	4.7%	13.8%	1.7%	1.2%	-	4.9%	100.0%
1994	70.7%	4.4%	4.5%	12.9%	1.6%	1.2%	-	4.8%	100.0%
1995	72.1%	4.4%	4.5%	12.7%	1.6%	1.1%	-	3.6%	100.0%
1996	71.1%	4.4%	4.3%	13.2%	1.7%	1.1%	-	4.2%	100.0%
1997	71.1%	4.5%	5.5%	12.6%	1.8%	0.9%	-	3.5%	100.0%
1998	70.8%	4.6%	6.1%	11.3%	2.0%	1.3%	-	4.0%	100.0%
1999	68.3%	4.7%	7.0%	11.8%	2.3%	1.6%	-	4.3%	100.0%
2000	67.7%	4.6%	7.2%	12.0%	2.3%	1.7%	-	4.4%	100.0%
2001	67.5%	4.7%	7.2%	12.1%	2.4%	1.7%	-	4.4%	100.0%
2002	67.4%	4.6%	7.3%	12.0%	2.5%	1.8%	-	4.4%	100.0%
2003	68.4%	4.1%	7.3%	11.7%	2.6%	1.8%	-	4.2%	100.0%
2004	69.4%	4.0%	7.4%	10.8%	2.6%	1.7%	-	4.1%	100.0%
2005	70.1%	3.7%	7.3%	10.7%	2.4%	1.6%	-	4.2%	100.0%
2006	70.2%	3.6%	7.4%	10.6%	2.4%	1.6%	-	4.2%	100.0%

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other"; post-1999 data were revised in 2005.

Figure 4A.3. Energy End Use by Sector (Mtce), 1980-2006

Figure 4A.4. Shares of Energy End Use by Sector (Shares), 1980-2006

Table 4A.5.1. Industrial End-Use Energy by Energy Type (Mtce)

Mtce

Sum of	EBMaterial							
EBYear	Total Coal	Coke	Electricity	Total Petroleum	Natural Gas	Heat	Coke Oven Gas	Grand Total
1980	154.53	41.35	90.05	54.06	17.02	8.28	5.58	370.88
1981	153.17	37.72	91.81	50.31	14.87	8.59	5.72	362.18
1982	165.40	38.40	98.14	50.89	14.22	8.76	5.72	381.51
1983	181.22	39.99	105.79	51.25	14.44	8.96	6.39	408.03
1984	198.79	42.55	113.45	53.73	14.58	9.50	6.42	439.02
1985	212.16	44.82	120.36	58.50	13.93	10.77	6.46	467.00
1986	222.24	49.79	133.99	61.91	14.23	11.46	7.74	501.37
1987	241.68	54.22	147.24	65.87	14.70	12.64	6.73	543.08
1988	257.70	57.09	161.00	70.71	14.78	12.96	7.37	581.59
1989	265.33	60.38	171.02	75.00	13.95	14.57	7.79	608.04
1990	255.42	65.45	179.32	74.08	14.43	17.48	8.06	614.24
1991	263.44	67.71	192.82	79.32	15.97	19.30	8.92	647.48
1992	277.27	73.43	213.49	81.81	15.52	20.93	7.61	690.05
1993	289.55	81.91	236.02	87.43	16.66	26.81	8.98	747.37
1994	306.20	84.62	258.03	95.69	18.37	31.27	8.84	803.02
1995	328.80	100.35	279.38	101.47	19.03	30.53	10.34	869.89
1996	339.90	101.41	293.92	114.72	19.49	31.73	10.16	911.33
1997	315.69	102.02	306.93	122.01	19.28	32.22	10.48	908.63
1998	298.50	103.32	307.65	124.66	19.70	35.07	10.34	899.24
1999	258.57	96.49	322.02	116.86	20.78	36.71	10.18	861.61
2000	243.63	96.49	352.16	121.98	22.70	39.63	10.77	887.38
2001	236.55	101.81	383.85	121.53	24.86	41.94	11.33	921.87
2002	216.07	114.97	434.64	131.11	26.33	44.30	12.14	979.56
2003	256.91	135.67	510.62	142.41	31.79	46.20	13.88	1137.46
2004	329.03	163.00	599.28	162.22	33.60	48.12	14.96	1350.21
2005	343.01	224.62	677.72	160.80	38.80	56.53	22.16	1523.65
2006	342.77	263.15	783.31	169.82	45.99	60.10	23.07	1688.20

Table 4A.5.2. Industrial End-Use Energy by Energy Type (Shares)

Shares

Sum of EB	Material							
EBYear	Total Coal	Coke	Electricity	Total Petroleum	Natural Gas	Heat	Coke Oven Gas	Grand Total
1980	41.7%	11.1%	24.3%	14.6%	4.6%	2.2%	1.5%	100%
1981	42.3%	10.4%	25.3%	13.9%	4.1%	2.4%	1.6%	100%
1982	43.4%	10.1%	25.7%	13.3%	3.7%	2.3%	1.5%	100%
1983	44.4%	9.8%	25.9%	12.6%	3.5%	2.2%	1.6%	100%
1984	45.3%	9.7%	25.8%	12.2%	3.3%	2.2%	1.5%	100%
1985	45.4%	9.6%	25.8%	12.5%	3.0%	2.3%	1.4%	100%
1986	44.3%	9.9%	26.7%	12.3%	2.8%	2.3%	1.5%	100%
1987	44.5%	10.0%	27.1%	12.1%	2.7%	2.3%	1.2%	100%
1988	44.3%	9.8%	27.7%	12.2%	2.5%	2.2%	1.3%	100%
1989	43.6%	9.9%	28.1%	12.3%	2.3%	2.4%	1.3%	100%
1990	41.6%	10.7%	29.2%	12.1%	2.3%	2.8%	1.3%	100%
1991	40.7%	10.5%	29.8%	12.3%	2.5%	3.0%	1.4%	100%
1992	40.2%	10.6%	30.9%	11.9%	2.2%	3.0%	1.1%	100%
1993	38.7%	11.0%	31.6%	11.7%	2.2%	3.6%	1.2%	100%
1994	38.1%	10.5%	32.1%	11.9%	2.3%	3.9%	1.1%	100%
1995	37.8%	11.5%	32.1%	11.7%	2.2%	3.5%	1.2%	100%
1996	37.3%	11.1%	32.3%	12.6%	2.1%	3.5%	1.1%	100%
1997	34.7%	11.2%	33.8%	13.4%	2.1%	3.5%	1.2%	100%
1998	33.2%	11.5%	34.2%	13.9%	2.2%	3.9%	1.2%	100%
1999	30.0%	11.2%	37.4%	13.6%	2.4%	4.3%	1.2%	100%
2000	27.5%	10.9%	39.7%	13.7%	2.6%	4.5%	1.2%	100%
2001	25.7%	11.0%	41.6%	13.2%	2.7%	4.5%	1.2%	100%
2002	22.1%	11.7%	44.4%	13.4%	2.7%	4.5%	1.2%	100%
2003	22.6%	11.9%	44.9%	12.5%	2.8%	4.1%	1.2%	100%
2004	24.4%	12.1%	44.4%	12.0%	2.5%	3.6%	1.1%	100%
2005	22.5%	14.7%	44.5%	10.6%	2.5%	3.7%	1.5%	100%
2006	20.3%	15.6%	46.4%	10.1%	2.7%	3.6%	1.4%	100%

Figure 4A.5. Industrial Energy End Use by Energy Type, 1980-2006 (Mtce)

Figure 4A.6. Industrial Energy End Use by Energy Type, 1980-2006 (Shares)

Table 4A.6.1. Industrial Sector End Use by Subsector and Energy Type, 1995

Physical units

ECYear		1995						
Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	22.47	0.68	2.41	0.41	0.01	0.00	
	Petroleum and Natural Gas Extraction	2.20		0.00	0.01			
	Ferrous Metals Mining and Dressing	0.44	0.00	0.48	0.57			
	Nonferrous Metals Mining and Dressing	1.53	0.00	0.00	0.21		0.08	
	Nonmetal Mineral Mining and Dressing	3.14	0.01	0.00	0.26		0.00	
	Other Minerals Mining and Dressing	0.17		0.00	0.00			
	Logging and Transport of Wood and Bamboo	1.75	0.00	0.00	0.01			
Manufacture	Food, Beverage, and Tobacco Processing	33.72	0.66	1.17	0.32	0.00	0.04	
	Textile Industry	23.37	0.09	0.08	0.06	0.02	0.04	
	Garments and Other Fiber Products	1.12	0.01	0.00	0.01	0.00	0.00	
	Leather, Furs, Down, and Related Products	1.35	0.01	0.00	0.01			
	Products	3.38	0.01	0.00	0.01		0.00	
	Furniture Manufacturing	0.59	0.00		0.01			
	Papermaking and Paper Products	17.21	0.05	0.06	0.04	0.01	0.04	
	Printing and Record Medium Reproduction	0.80	0.00		0.01	0.00	0.00	
	Cultural, Educational, and Sports Articles	0.33	0.00		0.02		0.00	
	Petroleum Processing and Coking	4.47	0.33	0.08	0.30	1.20	0.42	0.81
	Raw Chemical Materials and Chemical Products	80.70	1.47	1.09	12.51	0.88	0.71	0.65
	Medical and Pharmaceutical Products	8.03	0.18	0.04	0.03	0.01	0.00	
	Chemical Fiber	3.74	0.04	0.00	0.24		0.00	
	Rubber Products	4.97	0.01	0.02	0.02	0.00	0.00	
	Plastic Products	2.57	0.01	0.00	0.02			
	Nonmetal Mineral Products	125.27	1.00	7.17	2.77	0.31	0.94	0.05
	Smelting and Rolling of Ferrous Metals	38.32	1.59	1.44	77.91	13.99	55.79	1.43
	Smelting and Rolling of Nonferrous Metals	8.25	0.45	0.67	1.92	0.01	1.14	
	Metal Products	4.47	0.08	0.02	1.23	0.01	0.02	
	Machinery, Electric Equipment, Electronic Manufacturing	24.30	1.13	0.44	4.00	0.24	5.63	
	Other Manufacturing Industry	8.90	0.05	0.03	0.30	0.05	0.30	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	5.35	0.17	3.45	0.04	0.26	0.00	
	Gas Production & Supply	0.29	0.16	0.10	0.13	0.42	0.20	
	Tap Water Production & Supply	0.35	0.00		0.00			
Industry Total	Industry Total	433.54	8.21	18.75	103.35	17.43	65.36	2.94

(continued)

Table 4A.6.1. Industrial Sector End Use by Subsector and Energy Type, 19

Physical units

ECYear	1995
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Sum of ECAmount		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing		0.38	0.02	0.32	0.01	0.00				1.86	39.24	35.60
	Petroleum and Natural Gas Extraction	1.75	0.59	0.01	1.47	1.66	0.13	0.25		4.16	9.94	25.89	26.30
	Ferrous Metals Mining and Dressing		0.05	0.00	0.05	0.02	0.00				0.47	3.43	2.79
	Nonferrous Metals Mining and Dressing		0.08	0.00	0.12	0.09	0.00			0.06	10.24	8.30	5.53
	Nonmetal Mineral Mining and Dressing		0.09	0.00	0.21	0.07	0.00			0.07	7.00	5.28	5.49
	Other Minerals Mining and Dressing		0.00	0.00	0.03							0.34	0.30
	Logging and Transport of Wood and Bamboo		0.17	0.00	0.08						1.20	1.30	2.19
Manufacture	Food, Beverage, and Tobacco Processing	0.02	0.72	0.03	0.43	0.22	0.02			0.11	50.33	32.29	42.68
	Textile Industry	0.01	0.43	0.03	0.35	0.32	0.07			0.40	66.86	33.52	34.97
	Garments and Other Fiber Products	0.00	0.11	0.00	0.08	0.02	0.00				12.39	4.12	3.22
	Leather, Furs, Down, and Related Products	0.00	0.05	0.00	0.06	0.01	0.00				0.97	4.29	2.92
	Products		0.05	0.01	0.06	0.02	0.03				2.17	2.59	3.78
	Furniture Manufacturing		0.04	0.00	0.01	0.00	0.00				0.45	1.32	1.06
	Papermaking and Paper Products	0.00	0.15	0.02	0.17	0.10	0.00			0.01	37.62	16.91	21.16
	Printing and Record Medium Reproduction	0.00	0.06	0.03	0.03	0.00	0.00				0.83	3.12	2.04
	Cultural, Educational, and Sports Articles		0.03	0.00	0.03	0.01	0.00				0.35	0.71	0.62
	Petroleum Processing and Coking	0.31	0.29	0.01	0.34	3.82	0.73	2.54	10.32	1.51	195.09	15.61	46.75
	Raw Chemical Materials and Chemical Products	0.33	0.63	0.08	0.94	3.44	0.39	0.38	13.63	6.27	182.77	102.81	157.45
	Medical and Pharmaceutical Products	0.00	0.09	0.00	0.04	0.39	0.02	0.00		0.03	23.38	10.75	11.88
	Chemical Fiber	0.06	0.05	0.00	0.05	0.36	0.11	0.42	1.03	0.40	49.16	9.28	11.86
	Rubber Products	0.01	0.14	0.00	0.04	0.11	0.00				6.67	5.38	6.42
	Plastic Products	0.00	0.17	0.00	0.21	0.03	0.00				2.82	7.14	5.44
	Nonmetal Mineral Products	0.17	0.82	0.03	1.49	3.25	0.13	0.01		0.23	7.21	59.96	131.68
	Smelting and Rolling of Ferrous Metals	0.03	0.43	0.00	0.69	3.95	0.00			0.36	105.95	90.54	179.08
	Smelting and Rolling of Nonferrous Metals	0.00	0.13	0.01	0.22	0.61	0.00			0.05	30.10	42.56	28.55
	Metal Products	0.00	0.18	0.03	0.23	0.11	0.01			0.05	1.11	11.35	9.98
	Machinery, Electric Equipment, Electronic Manufacturing	0.02	1.61	0.10	1.07	0.65	0.11			0.47	47.43	50.93	52.01
	Other Manufacturing Industry	0.01	0.20	0.01	0.16	0.17	0.01			0.09	10.38	10.46	12.30
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.01	0.34	0.01	0.37	0.28	0.01			0.02	31.17	79.52	41.24
	Gas Production & Supply		0.03	0.00	0.02	0.05	0.11			0.06	1.93	1.08	1.71
	Tap Water Production & Supply		0.02	0.00	0.01						0.11	11.55	4.98
Industry Total	Industry Total	2.75	8.12	0.45	9.38	19.75	1.91	3.61	24.98	14.31	897.96	691.53	891.97

(continued)

Table 4A.6.2. Industrial Sector End Use by Subsector and Energy Type, 1996

Physical units

EYear		1996						
Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	24.22	0.77	2.52	0.42	0.01		
	Petroleum and Natural Gas Extraction	2.44		0.01	0.02			
	Ferrous Metals Mining and Dressing	0.61	0.00	0.20	0.85			
	Nonferrous Metals Mining and Dressing	1.40	0.00	0.00	0.51			
	Nonmetal Mineral Mining and Dressing	3.45	0.01	0.00	0.41			
	Other Minerals Mining and Dressing	0.11		0.00	0.03			
	Logging and Transport of Wood and Bamboo	1.89	0.00	0.00	0.00			
Manufacture	Food, Beverage, and Tobacco Processing	32.59	0.68	0.85	0.41	0.01	0.01	
	Textile Industry	20.00	0.09	0.04	0.07	0.01	0.03	
	Garments and Other Fiber Products	1.49	0.02		0.02	0.00	0.00	
	Leather, Furs, Down, and Related Products	1.09	0.00		0.01			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	3.00	0.00	0.00	0.01			
	Furniture Manufacturing	0.29			0.01			
	Papermaking and Paper Products	17.01	0.01	0.07	0.02			
	Printing and Record Medium Reproduction	0.63	0.00		0.01		0.00	
	Cultural, Educational, and Sports Articles	0.37	0.00	0.01	0.02		0.00	
	Petroleum Processing and Coking	5.52	0.84	0.66	0.24	1.10	0.52	0.37
	Raw Chemical Materials and Chemical Products	85.32	0.54	0.18	14.32	1.03	0.24	0.90
	Medical and Pharmaceutical Products	6.23	0.03	0.00	0.03	0.01	0.06	0.36
	Chemical Fiber	3.21	0.04	0.00	0.26			
	Rubber Products	4.59	0.01	0.00	0.01		0.00	
	Plastic Products	2.65	0.00	0.00	0.04		0.01	
	Nonmetal Mineral Products	128.18	0.86	6.23	2.80	0.36	0.88	0.15
	Smelting and Rolling of Ferrous Metals	37.99	2.40	1.64	74.58	13.77	53.59	1.57
	Smelting and Rolling of Nonferrous Metals	8.25	0.49	0.65	2.44	0.01	1.01	
	Metal Products	4.26	0.03	0.00	1.58	0.03	0.05	
	Machinery, Electric Equipment, Electronic Manufacturing	25.49	1.07	0.40	4.12	0.22	1.88	
	Other Manufacturing Industry	7.62	0.01	0.00	0.32	0.00	0.10	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	20.52	0.69	1.94	0.03	0.14	0.05	
	Gas Production & Supply	0.86	0.20		0.88	0.44	0.07	
	Tap Water Production & Supply	0.26	0.00		0.00			
Industry Total	Industry Total	451.83	8.81	15.41	104.44	17.13	58.50	3.36

(continued)

Table 4A.6.2. Industrial Sector End Use by Subsector and Energy Type, 19

Physical units

EYear		1996											
Sum of ECAmount													
ECProcess2	ECProcess	Crude Oil Mt	Gasoline Mt	Kerosene Mt	Diesel Oil Mt	Fuel Oil Mt	Liquid Petroleum Gas Mt	Refinery Gas Mt	Petroleum Other Products Mt	Natural Gas bm3	Heat PJ	Electricity TWh	Total Energy Mtce
Mining	Coal Mining and Dressing	0.01	0.47	0.03	0.31	0.02					1.59	37.60	36.51
	Petroleum and Natural Gas Extraction	1.69	0.53	0.01	1.91	1.09	0.06	0.07		2.98	11.15	25.90	24.21
	Ferrous Metals Mining and Dressing		0.05	0.00	0.06					0.06		4.17	3.33
	Nonferrous Metals Mining and Dressing	0.00	0.08	0.00	0.16	0.00	0.00					11.10	6.33
	Nonmetal Mineral Mining and Dressing		0.14	0.00	0.18	0.02					5.87	5.14	5.65
	Other Minerals Mining and Dressing		0.00	0.00	0.01							0.77	0.44
	Logging and Transport of Wood and Bamboo		0.17	0.00	0.10	0.00					0.45	1.23	2.25
Manufacture	Food, Beverage, and Tobacco Processing	0.01	1.25	0.03	0.46	0.28	0.02			0.13	51.64	30.46	41.92
	Textile Industry	0.00	0.79	0.02	0.27	0.35	0.01			0.61	59.38	32.36	32.40
	Garments and Other Fiber Products	0.00	0.09	0.00	0.08	0.03	0.00				1.43	3.95	3.05
	Leather, Furs, Down, and Related Products		0.06	0.00	0.07	0.00					1.37	2.06	1.85
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.07	0.01	0.04	0.02					2.08	2.60	3.48
	Furniture Manufacturing		0.03	0.00	0.02	0.00	0.00				1.58	2.73	1.66
	Papermaking and Paper Products	0.00	0.11	0.02	0.16	0.09	0.00			0.01	44.74	16.78	21.08
	Printing and Record Medium Reproduction		0.06	0.03	0.03	0.00	0.00	0.08			0.57	2.98	1.96
	Cultural, Educational, and Sports Articles		0.04	0.00	0.07	0.00	0.00				0.53	0.94	0.86
	Petroleum Processing and Coking	1.09	0.20	0.02	0.33	3.03	0.99	2.68		0.80	181.32	16.58	32.32
	Raw Chemical Materials and Chemical Products	1.38	0.77	0.07	1.44	4.79	0.37	0.45	30.60	7.92	198.22	125.05	201.83
	Medical and Pharmaceutical Products	0.02	0.12	0.00	0.06	0.10	0.01			0.05	24.53	8.56	9.71
	Chemical Fiber	0.06	0.05	0.00	0.05	0.40	0.09	0.35		0.39	46.95	9.97	10.14
	Rubber Products	0.02	0.09	0.00	0.05	0.10	0.00				12.27	6.81	6.82
	Plastic Products	0.00	0.16	0.00	0.19	0.05	0.00			0.21	8.42	8.17	6.40
	Nonmetal Mineral Products	0.06	0.82	0.03	1.60	3.01	0.09	0.01		0.30	15.21	59.25	132.81
	Smelting and Rolling of Ferrous Metals	0.05	0.36	0.01	0.59	3.49	0.01	0.00		0.41	114.95	91.92	175.80
	Smelting and Rolling of Nonferrous Metals	0.01	0.14	0.01	0.24	0.63	0.00			0.04	40.91	45.42	30.62
	Metal Products	0.00	0.22	0.02	0.23	0.13	0.01			0.04	1.94	13.59	11.12
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.63	0.10	1.12	0.64	0.05	0.01		0.57	49.88	51.85	52.39
	Other Manufacturing Industry	0.00	0.17	0.01	0.14	0.10	0.00	0.00		0.10	11.33	13.36	12.30
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.14	0.21	0.01	0.72	1.12	0.00	0.00		0.00	42.34	83.46	54.96
	Gas Production & Supply		0.03	0.00	0.02	0.11	0.03			0.03	2.41	1.09	2.71
	Tap Water Production & Supply		0.03	0.00	0.02	0.00	0.00				0.17	11.67	4.98
Industry Total	Industry Total	4.53	8.95	0.43	10.74	19.62	1.75	3.62	30.60	14.66	933.24	727.52	931.89

(continued)

Table 4A.6.3. Industrial Sector End Use by Subsector and Energy Type, 1997

Physical units

ECYear		1997						
Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	20.06	2.54	1.88	0.52	0.01		
	Petroleum and Natural Gas Extraction	3.21	0.00	0.00	0.03			
	Ferrous Metals Mining and Dressing	0.51	0.00	0.18	0.70			
	Nonferrous Metals Mining and Dressing	1.14	0.04	0.00	0.21			
	Nonmetal Mineral Mining and Dressing	3.07	0.06	0.00	0.33			
	Other Minerals Mining and Dressing	0.14	0.00	0.00	0.04			
	Logging and Transport of Wood and Bamboo	1.52	0.00	0.00	0.00			
Manufacture	Food, Beverage, and Tobacco Processing	28.59	0.72	0.91	0.31	0.01	0.01	0.13
	Textile Industry	18.03	0.05	0.06	0.08	0.01	0.02	
	Garments and Other Fiber Products	1.30	0.00	0.02	0.02	0.00	0.00	
	Leather, Furs, Down, and Related Products	0.86	0.00	0.00	0.02			
	Products	2.77	0.00	0.00	0.01			0.01
	Furniture Manufacturing	0.40	0.00	0.10	0.03			
	Papermaking and Paper Products	14.71	0.00	0.10	0.07			
	Printing and Record Medium Reproduction	0.65	0.00	0.00	0.01	0.00		
	Cultural, Educational, and Sports Articles	0.19	0.00	0.01	0.02		0.09	
	Petroleum Processing and Coking	5.32	0.91	0.48	0.33	1.42	0.71	0.51
	Raw Chemical Materials and Chemical Products	69.74	0.89	0.32	13.19	0.84	0.43	0.51
	Medical and Pharmaceutical Products	5.33	0.02	0.05	0.01	0.00	0.00	
	Chemical Fiber	3.26	0.25		0.27			
	Rubber Products	3.74	0.00	0.00	0.01		0.00	
	Plastic Products	2.48	0.00	0.00	0.07		0.00	
	Nonmetal Mineral Products	120.12	0.96	6.25	2.69	0.21	0.76	0.08
	Smelting and Rolling of Ferrous Metals	35.47	3.18	1.93	78.36	14.63	49.06	1.64
	Smelting and Rolling of Nonferrous Metals	7.67	0.56	0.76	2.13	0.02	0.78	0.00
	Metal Products	3.69	0.03	0.03	1.13	0.02	0.07	
	Machinery, Electric Equipment, Electronic Manufacturing	22.04	1.01	0.32	3.49	0.15	1.58	0.00
	Other Manufacturing Industry	6.52	0.02	0.01	0.32	0.00	0.10	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	30.59	0.56	2.20	0.07	0.00	0.75	0.00
	Gas Production & Supply	0.82	0.56		0.59	0.36	0.09	0.03
	Tap Water Production & Supply	0.21		0.00	0.00			
Industry Total	Industry Total	414.13	12.37	15.61	105.06	17.68	54.43	2.91

(continued)

Table 4A.6.3. Industrial Sector End Use by Subsector and Energy Type, 19

Physical units

ECYear	1997
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Sum of ECAmount		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.01	0.33	0.03	0.35	0.05	0.00		0.00		1.52	38.10	34.63
	Petroleum and Natural Gas Extraction	3.17	0.49	0.01	1.65	1.53	0.14	0.35	0.56	4.16	10.50	31.47	32.21
	Ferrous Metals Mining and Dressing	0.12	0.06	0.00	0.06		0.00		0.00	0.01		4.93	3.52
	Nonferrous Metals Mining and Dressing		0.07	0.00	0.15	0.01	0.00		0.05		0.11	7.99	4.67
	Nonmetal Mineral Mining and Dressing		0.11	0.00	0.18	0.01			0.00	0.01	4.60	5.60	5.34
	Other Minerals Mining and Dressing		0.02	0.00	0.03				0.00			0.54	0.43
	Logging and Transport of Wood and Bamboo	0.00	0.17	0.00	0.11						1.90	1.46	2.14
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.73	0.01	0.56	0.24	0.02		0.01	0.06	48.20	29.88	38.09
	Textile Industry	0.00	0.31	0.02	0.26	0.32	0.01		0.03	0.09	60.36	34.41	30.48
	Garments and Other Fiber Products	0.00	0.09	0.00	0.08	0.05	0.00				1.14	3.59	2.78
	Leather, Furs, Down, and Related Products		0.05	0.00	0.07	0.01			0.00		1.37	1.81	1.59
	Products		0.05	0.01	0.04	0.02			0.02		2.92	2.84	3.43
	Furniture Manufacturing		0.04	0.00	0.02	0.00	0.00		0.00		1.66	2.72	1.62
	Papermaking and Paper Products	0.00	0.11	0.02	0.18	0.07	0.00		0.03	0.01	41.06	16.77	19.42
	Printing and Record Medium Reproduction		0.05	0.03	0.02	0.01	0.00		0.00		0.38	2.78	1.76
	Cultural, Educational, and Sports Articles		0.03	0.00	0.05	0.00	0.00				0.55	1.14	0.79
	Petroleum Processing and Coking	0.64	0.19	0.11	0.36	3.57	1.13	3.61	20.24	0.99	178.86	18.24	64.16
	Raw Chemical Materials and Chemical Products	0.53	0.63	0.07	0.90	3.89	0.38	0.29	12.59	7.47	216.27	114.78	155.86
	Medical and Pharmaceutical Products	0.00	0.11	0.00	0.07	0.08	0.00		0.00	0.02	22.76	7.98	8.26
	Chemical Fiber	0.07	0.03	0.00	0.05	0.38	0.05	0.38	2.26	0.37	46.10	11.14	13.94
	Rubber Products	0.00	0.09	0.00	0.05	0.05			0.00	0.00	11.71	7.05	6.20
	Plastic Products		0.15	0.00	0.21	0.03	0.00		0.09	0.00	8.98	9.73	6.79
	Nonmetal Mineral Products	0.11	0.63	0.02	1.36	2.85	0.10	0.01	0.27	0.31	15.25	60.81	127.08
	Smelting and Rolling of Ferrous Metals	0.02	0.35	0.01	0.60	3.39	0.00		0.01	0.24	119.05	93.42	178.06
	Smelting and Rolling of Nonferrous Metals	0.01	0.14	0.01	0.25	0.56	0.01		0.22	0.06	41.93	51.35	32.66
	Metal Products	0.00	0.18	0.02	0.21	0.13	0.01		0.03	0.03	2.17	14.10	10.46
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.56	0.08	1.15	0.61	0.05	0.00	0.41	0.40	49.81	58.59	52.04
	Other Manufacturing Industry		0.17	0.00	0.18	0.09	0.00		0.33	0.13	11.09	15.95	13.13
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.00	0.22	0.01	0.66	1.19	0.01		0.00	0.13	43.03	96.18	67.57
	Gas Production & Supply		0.03	0.00	0.01	0.12	0.11		0.00	0.01	4.11	1.32	2.91
	Tap Water Production & Supply		0.04	0.00	0.02	0.00	0.00		0.00	0.00	0.18	13.07	5.52
Industry Total	Industry Total	4.71	7.22	0.47	9.88	19.26	2.01	4.64	37.13	14.50	947.56	759.73	927.53

(continued)

Table 4A.6.4. Industrial Sector End Use by Subsector and Energy Type, 1998

Physical units

EYear		1998						
Sum of ECAmount		ECMaterial ECUom						
ECProcess2		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Gas not Coke Source	Coke Other Products
		Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	23.53	1.10	2.17	0.45	0.04		0.03
	Petroleum and Natural Gas Extraction	1.96	0.00	0.04	0.05			
	Ferrous Metals Mining and Dressing	0.54	0.00	0.18	0.77			
	Nonferrous Metals Mining and Dressing	1.04	0.01	0.00	0.19			
	Nonmetal Mineral Mining and Dressing	2.81	0.07	0.06	0.28			
	Other Minerals Mining and Dressing	0.09			0.03			
	Logging and Transport of Wood and Bamboo	1.49	0.00	0.00	0.00			
Manufacture	Food, Beverage, and Tobacco Processing	27.48	0.71	0.76	0.32	0.01	0.02	
	Textile Industry	15.44	0.03	0.05	0.12	0.01	0.01	
	Garments and Other Fiber Products	1.42	0.01	0.02	0.02			
	Leather, Furs, Down, and Related Products	0.95	0.00	0.00	0.04			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	2.72	0.00	0.02	0.02			0.00
	Furniture Manufacturing	0.48		0.00	0.01		0.01	0.00
	Papermaking and Paper Products	13.46	0.02	0.15	0.03		0.00	
	Printing and Record Medium Reproduction	0.63	0.00	0.00	0.00	0.00	0.00	
	Cultural, Educational, and Sports Articles	0.21	0.00		0.02			
	Petroleum Processing and Coking	6.58	1.59	0.26	0.52	0.91	0.45	0.11
	Raw Chemical Materials and Chemical Products	63.59	0.74	0.60	12.07	0.98	0.37	0.36
	Medical and Pharmaceutical Products	5.22	0.02	0.02	0.01	0.16	0.01	0.03
	Chemical Fiber	3.94	0.44	0.00	0.31			
	Rubber Products	3.75	0.01	0.00	0.07	0.00	0.00	
	Plastic Products	1.89	0.00	0.00	0.07	0.05	0.00	
	Nonmetal Mineral Products	109.97	1.12	4.37	3.02	0.22	0.73	0.14
	Smelting and Rolling of Ferrous Metals	35.73	4.75	1.65	80.30	14.56	39.23	0.96
	Smelting and Rolling of Nonferrous Metals	8.45	0.44	0.34	2.08	0.00	0.74	0.11
	Metal Products	3.38	0.05	0.00	1.42	0.01	0.04	0.00
	Machinery, Electric Equipment, Electronic Manufacturing	18.65	0.77	0.20	3.55	0.13	1.39	0.01
	Other Manufacturing Industry	4.82	0.01	0.04	0.30		0.11	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	29.43	0.30	3.56	0.09	0.00	0.63	0.00
	Gas Production & Supply	1.10	0.28	0.00	0.19	0.36	0.13	0.02
	Tap Water Production & Supply	0.29	0.01		0.03			
Industry Total	Industry Total	391.05	12.49	14.50	106.41	17.44	43.86	1.76

(continued)

Table 4A.6.4. Industrial Sector End Use by Subsector and Energy Type, 19

Physical units

EYear		1998											
Sum of ECAmount		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
ECPProcess2	ECPProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.01	0.34	0.03	0.39	0.05	0.00		0.00	42.36	9.00	42.36	94.65
	Petroleum and Natural Gas Extraction	3.40	0.39	0.01	1.17	1.54	0.15	0.44	0.33	3.94	32.87	29.50	30.34
	Ferrous Metals Mining and Dressing		0.06	0.00	0.08	0.00				0.01	0.01	5.73	3.80
	Nonferrous Metals Mining and Dressing		0.06	0.00	0.09	0.00	0.00				0.11	6.58	3.83
	Nonmetal Mineral Mining and Dressing		0.09	0.00	0.23	0.00			0.00		7.44	6.00	5.42
	Other Minerals Mining and Dressing		0.01		0.03							0.74	0.46
	Logging and Transport of Wood and Bamboo		0.16	0.00	0.08						1.69	1.11	1.92
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.80	0.00	0.57	0.26	0.03		0.03	0.05	60.17	35.77	39.98
	Textile Industry	0.02	0.38	0.03	0.29	0.49	0.05	0.00	0.02	0.08	65.03	33.07	28.70
	Garments and Other Fiber Products	0.00	0.08	0.00	0.12	0.09	0.00		0.01		7.43	4.01	3.37
	Leather, Furs, Down, and Related Products		0.06	0.00	0.10	0.02	0.00		0.03		1.43	2.43	2.07
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.04	0.01	0.06	0.02	0.00		0.00		1.93	2.44	3.22
	Furniture Manufacturing	0.00	0.03	0.00	0.02	0.01	0.00		0.00		0.12	0.93	0.82
	Papermaking and Paper Products	0.00	0.14	0.03	0.20	0.13	0.00	0.00	0.02	0.01	44.89	18.37	19.48
	Printing and Record Medium Reproduction		0.06	0.04	0.06	0.01	0.00		0.01	0.00	1.24	2.43	1.75
	Cultural, Educational, and Sports Articles		0.03	0.02	0.09	0.26	0.00		0.00		0.26	1.64	1.41
	Petroleum Processing and Coking	0.85	0.15	0.11	0.35	3.40	0.79	3.06	23.86	1.13	210.85	19.23	70.33
	Raw Chemical Materials and Chemical Products	0.34	0.47	0.07	1.13	3.04	0.44	0.34	10.79	7.77	205.99	105.33	142.82
	Medical and Pharmaceutical Products		0.11	0.00	0.05	0.06	0.01		0.01	0.01	27.54	7.68	8.30
	Chemical Fiber	0.06	0.06	0.00	0.07	0.42	0.05	0.40	2.10	0.32	47.94	15.01	16.05
	Rubber Products	0.02	0.10	0.00	0.07	0.10	0.00		0.01		8.18	8.14	6.76
	Plastic Products	0.01	0.14	0.00	0.35	0.07	0.02		0.07		1.58	9.78	6.40
	Nonmetal Mineral Products	0.12	0.50	0.02	2.28	3.12	0.42	0.04	0.60	0.35	8.11	64.91	122.99
	Smelting and Rolling of Ferrous Metals	0.07	0.56	0.03	0.59	3.07	0.00		0.02	0.28	117.63	93.66	177.48
	Smelting and Rolling of Nonferrous Metals	0.01	0.11	0.01	0.49	0.57	0.00		0.12	0.07	52.71	53.86	34.46
	Metal Products	0.00	0.19	0.02	0.31	0.09	0.04		0.01	0.02	2.56	14.29	10.68
	Machinery, Electric Equipment, Electronic Manufacturing	0.02	1.21	0.10	1.34	0.49	0.09	0.01	0.23	0.49	45.44	61.92	50.13
	Other Manufacturing Industry	0.00	0.18	0.09	0.15	0.06	0.01		0.22	0.15	9.85	13.52	10.81
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.01	0.20	0.00	0.57	1.06			0.03	0.08	55.76	85.55	63.29
	Gas Production & Supply		0.02	0.00	0.08	0.02	0.04		0.00	0.06	3.53	2.63	2.94
	Tap Water Production & Supply	0.00	0.03	0.00	0.02	0.00	0.00		0.00		0.07	12.88	5.51
Industry Total	Industry Total	4.95	6.77	0.62	11.43	18.45	2.16	4.28	38.52	14.82	1,031.37	761.50	913.84

(continued)

Table 4A.6.5. Industrial Sector End Use by Subsector and Energy Type, 1999

Physical units

EYear		1999						
Sum of ECAmount		ECMaterial		ECUom				
ECProcess2		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
		Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	19.64	1.27	2.08	0.46	0.07	0.07	0.04
	Petroleum and Natural Gas Extraction	1.91	0.00	0.04	0.05			
	Ferrous Metals Mining and Dressing	0.50	0.00	0.21	0.38			
	Nonferrous Metals Mining and Dressing	0.82	0.00	0.01	0.19			
	Nonmetal Mineral Mining and Dressing	2.37	0.02	0.02	0.23			0.01
	Other Minerals Mining and Dressing	0.08			0.00			
	Logging and Transport of Wood and Bamboo	1.05	0.00	0.00	0.00			
Manufacture	Food, Beverage, and Tobacco Processing	24.82	0.70	1.05	0.35	0.02	0.01	0.00
	Textile Industry	12.82	0.03	0.09	0.04	0.02	0.01	
	Garments and Other Fiber Products	1.28	0.00	0.00	0.02		0.00	
	Leather, Furs, Down, and Related Products	0.85	0.00	0.00	0.02			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	2.30	0.00	0.00	0.01			0.00
	Furniture Manufacturing	0.51		0.00	0.01			
	Papermaking and Paper Products	11.11	0.14	0.40	0.01			
	Printing and Record Medium Reproduction	0.52	0.00	0.00	0.00	0.00	0.00	
	Cultural, Educational, and Sports Articles	0.20	0.00		0.02		0.00	
	Petroleum Processing and Coking	6.81	1.04	0.26	0.38	1.03	0.26	0.16
	Raw Chemical Materials and Chemical Products	54.20	0.90	1.10	9.94	0.85	0.20	0.42
	Medical and Pharmaceutical Products	5.02	0.01	0.14	0.01	0.02	0.00	0.04
	Chemical Fiber	3.11	0.00	0.03	0.25	0.00		
	Rubber Products	3.38	0.01	0.01	0.02	0.00	0.00	
	Plastic Products	1.62	0.01	0.02	0.06		0.00	
	Nonmetal Mineral Products	104.07	0.94	3.75	2.87	0.27	0.55	0.12
	Smelting and Rolling of Ferrous Metals	34.41	3.42	3.11	76.90	14.14	33.22	0.94
	Smelting and Rolling of Nonferrous Metals	7.77	0.56	0.65	2.01	0.02	0.76	0.10
	Metal Products	2.80	0.06	0.01	1.30	0.01	0.03	0.00
	Machinery, Electric Equipment, Electronic Manufacturing	16.28	0.77	0.18	3.28	0.14	0.79	0.01
	Other Manufacturing Industry	3.47	0.00	0.08	0.27		0.04	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	26.38	0.20	2.30	0.09			0.00
	Gas Production & Supply	3.22	0.25	0.00	0.12	0.58	0.10	0.02
	Tap Water Production & Supply	0.35	0.01		0.07			
Industry Total	Industry Total	353.68	10.34	15.54	99.37	17.16	36.05	1.86

(continued)

Table 4A.6.5. Industrial Sector End Use by Subsector and Energy Type, 199

Physical units

ECYear		1999											
Sum of ECAmount													
ECProcess2	ECProcess	Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
		Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.02	0.37	0.05	0.45	0.06	0.00		0.02	0.01	8.42	39.52	34.63
	Petroleum and Natural Gas Extraction	3.31	0.43	0.00	1.41	1.49	0.17	0.56	0.29	4.65	47.81	29.99	32.32
	Ferrous Metals Mining and Dressing		0.07	0.00	0.11						0.03	5.89	3.51
	Nonferrous Metals Mining and Dressing		0.05	0.01	0.11	0.00	0.00				0.11	6.89	3.82
	Nonmetal Mineral Mining and Dressing		0.08	0.00	0.25	0.01				0.00	12.34	6.95	5.68
	Other Minerals Mining and Dressing		0.00		0.01							0.62	0.33
	Logging and Transport of Wood and Bamboo		0.17	0.00	0.09		0.00				1.80	1.41	1.76
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.93	0.01	0.96	0.26	0.03	0.00	0.08	0.03	45.46	33.24	37.09
	Textile Industry	0.00	0.41	0.04	0.35	0.78	0.04	0.00	0.08	0.09	59.34	30.59	26.20
	Garments and Other Fiber Products	0.00	0.09	0.00	0.13	0.12	0.01		0.01		2.00	4.37	3.29
	Leather, Furs, Down, and Related Products		0.05	0.00	0.16	0.04	0.00		0.01		0.94	2.41	1.98
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.03	0.00	0.06	0.03	0.00		0.00		7.78	2.80	3.22
	Furniture Manufacturing		0.03	0.00	0.03	0.01	0.00		0.00		1.45	1.09	0.96
	Papermaking and Paper Products	0.01	0.11	0.03	0.19	0.16	0.01	0.00	0.04	0.03	42.15	19.29	18.37
	Printing and Record Medium Reproduction		0.06	0.05	0.06	0.03	0.00		0.02	0.01	1.24	2.69	1.84
	Cultural, Educational, and Sports Articles	0.00	0.03	0.01	0.10	0.01	0.00		0.00		0.28	1.73	1.09
	Petroleum Processing and Coking	0.79	0.14	0.17	0.61	2.82	0.95	3.45	22.37	0.94	241.95	20.75	69.64
	Raw Chemical Materials and Chemical Products	0.54	0.45	0.08	1.00	3.21	0.57	0.38	8.84	8.39	206.87	105.82	133.31
	Medical and Pharmaceutical Products		0.10	0.00	0.06	0.06	0.00		0.01	0.06	29.86	7.69	8.30
	Chemical Fiber	0.07	0.04	0.00	0.08	0.50	0.04	0.60	2.32	0.00	53.43	15.88	15.94
	Rubber Products	0.00	0.09	0.00	0.07	0.11	0.00		0.03		7.06	7.68	6.23
	Plastic Products	0.00	0.13	0.00	0.33	0.10	0.02		0.03	0.01	1.39	9.39	5.97
	Nonmetal Mineral Products	0.08	0.49	0.02	2.69	3.08	0.39	0.04	0.19	0.22	9.72	66.07	118.19
	Smelting and Rolling of Ferrous Metals	0.09	0.29	0.05	0.62	2.87	0.01		0.01	0.11	113.57	100.47	173.18
	Smelting and Rolling of Nonferrous Metals	0.01	0.12	0.01	0.38	0.52	0.01		0.25	0.05	57.33	60.81	37.11
	Metal Products	0.00	0.18	0.02	0.34	0.10	0.07		0.01	0.06	2.28	16.06	10.98
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.09	0.11	1.65	0.55	0.11	0.00	0.13	0.63	49.22	59.37	47.52
	Other Manufacturing Industry	0.01	0.15	0.10	0.18	0.09	0.01	0.00	0.45	0.17	14.22	19.34	12.76
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.01	0.24	0.00	0.69	1.07	0.01	0.00	0.01	0.02	57.80	101.27	66.54
	Gas Production & Supply		0.02	0.00	0.06	0.01	0.07	0.00	0.01	0.15	3.72	2.80	4.68
	Tap Water Production & Supply		0.03	0.00	0.03	0.00			0.01	0.00	0.26	14.23	6.18
Industry Total	Industry Total	4.95	6.45	0.78	12.91	18.08	2.52	5.05	35.22	15.63	1,079.84	797.08	892.62

(continued)

Table 4A.6.6. Industrial Sector End Use by Subsector and Energy Type, 2000

Physical units

ECYear	2000
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Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	17.18	1.26	2.02	0.51	0.07	0.07	0.05
	Petroleum and Natural Gas Extraction	1.49	0.00	0.04	0.06			
	Ferrous Metals Mining and Dressing	0.48	0.00	0.16	0.50			
	Nonferrous Metals Mining and Dressing	0.69	0.00	0.01	0.21			
	Nonmetal Mineral Mining and Dressing	2.45	0.02	0.01	0.26			0.01
	Other Minerals Mining and Dressing	0.06			0.00			
	Logging and Transport of Wood and Bamboo	0.79	0.00	0.00	0.00			
Manufacture	Food, Beverage, and Tobacco Processing	19.59	0.69	0.98	0.34	0.02	0.01	0.00
	Textile Industry	11.46	0.03	0.08	0.04	0.02	0.02	
	Garments and Other Fiber Products	1.04	0.00	0.00	0.02		0.00	
	Leather, Furs, Down, and Related Products	0.63	0.00	0.00	0.02			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	1.93	0.00	0.00	0.01			0.00
	Furniture Manufacturing	0.38		0.00	0.01			
	Papermaking and Paper Products	11.17	0.11	0.47	0.02			
	Printing and Record Medium Reproduction	0.44	0.00	0.00	0.00	0.00	0.00	
	Cultural, Educational, and Sports Articles	0.16	0.00		0.02		0.00	
	Petroleum Processing and Coking	5.62	1.09	0.31	0.42	1.09	0.28	0.20
	Raw Chemical Materials and Chemical Products	48.43	0.95	1.09	10.48	0.91	0.25	0.48
	Medical and Pharmaceutical Products	4.14	0.01	0.16	0.01	0.02		0.05
	Chemical Fiber	2.87	0.00	0.02	0.26	0.00		
	Rubber Products	2.43	0.01	0.01	0.03	0.00		
	Plastic Products	1.21	0.01	0.02	0.06			
	Nonmetal Mineral Products	92.98	0.98	3.84	2.98	0.31	0.67	0.15
	Smelting and Rolling of Ferrous Metals	30.22	3.57	3.10	76.52	14.94	34.41	1.07
	Smelting and Rolling of Nonferrous Metals	6.19	0.53	0.62	1.99	0.02	0.87	0.12
	Metal Products	2.03	0.07	0.01	1.20	0.01	0.03	0.00
	Machinery, Electric Equipment, Electronic Manufacturing	11.99	0.77	0.17	3.15	0.14	0.74	0.01
	Other Manufacturing Industry	2.86	0.00	0.08	0.29		0.04	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	23.56	0.21	2.33				0.00
	Gas Production & Supply	1.96	0.21	0.00		0.60	0.11	0.02
	Tap Water Production & Supply	0.27	0.01					
Industry Total	Industry Total	306.71	10.51	15.51	99.38	18.17	37.50	2.16

(continued)

Table 4A.6.6. Industrial Sector End Use by Subsector and Energy Type, 2001

Physical units

ECYear	2000
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Sum of ECAmount		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.02	0.32	0.05	0.51	0.06	0.00		0.02	0.01	10.66	40.10	33.20
	Petroleum and Natural Gas Extraction	4.09	0.40	0.00	1.51	1.51	0.18	0.62	0.31	5.12	46.63	30.92	34.35
	Ferrous Metals Mining and Dressing		0.06	0.00	0.12						0.03	6.10	3.66
	Nonferrous Metals Mining and Dressing		0.05	0.01	0.13	0.00	0.00				0.12	7.77	4.12
	Nonmetal Mineral Mining and Dressing		0.08	0.00	0.27	0.01				0.00	11.66	8.16	6.26
	Other Minerals Mining and Dressing		0.00		0.01							0.98	0.46
	Logging and Transport of Wood and Bamboo		0.15	0.00	0.11		0.00				1.75	1.50	1.60
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.82	0.00	0.60	0.28	0.03	0.00	0.00	0.03	0.49	33.83	31.87
	Textile Industry	0.00	0.35	0.04	0.35	0.61	0.04	0.00	0.08	0.11	63.82	35.61	27.12
	Garments and Other Fiber Products	0.00	0.07	0.00	0.14	0.12	0.01		0.01		2.00	4.72	3.24
	Leather, Furs, Down, and Related Products		0.05	0.00	0.14	0.04	0.00		0.01		1.00	2.61	1.89
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.03	0.00	0.07	0.03	0.00		0.00		8.66	3.10	3.13
	Furniture Manufacturing		0.04	0.00	0.02	0.01	0.00		0.00		1.40	1.20	0.91
	Papermaking and Paper Products	0.00	0.12	0.04	0.22	0.17	0.01	0.00	0.04	0.03	46.63	22.82	20.10
	Printing and Record Medium Reproduction		0.06	0.06	0.07	0.02	0.00		0.02	0.01	1.44	3.00	1.93
	Cultural, Educational, and Sports Articles	0.00	0.02	0.01	0.11	0.01	0.00		0.00		0.30	2.00	1.18
	Petroleum Processing and Coking	1.02	0.15	0.18	0.68	2.95	1.06	3.82	23.30	1.02	256.45	23.61	73.40
	Raw Chemical Materials and Chemical Products	0.66	0.45	0.09	1.12	3.32	0.63	0.44	9.18	9.03	221.48	110.91	134.41
	Medical and Pharmaceutical Products		0.09	0.00	0.07	0.06	0.00		0.01	0.06	34.97	8.49	8.18
	Chemical Fiber	0.07	0.04	0.00	0.10	0.55	0.04	0.67	2.57	0.01	58.28	18.73	17.67
	Rubber Products	0.00	0.09	0.00	0.08	0.12	0.00		0.03		8.06	9.49	6.34
	Plastic Products	0.00	0.12	0.00	0.39	0.10	0.02		0.03	0.01	1.59	11.61	6.67
	Nonmetal Mineral Products	0.09	0.46	0.02	2.87	3.13	0.41	0.06	0.21	0.25	11.66	73.42	114.03
	Smelting and Rolling of Ferrous Metals	0.10	0.30	0.05	0.68	2.91	0.00		0.01	0.17	128.22	107.77	174.57
	Smelting and Rolling of Nonferrous Metals	0.01	0.11	0.01	0.41	0.55	0.01		0.27	0.05	63.28	67.06	38.82
	Metal Products	0.00	0.18	0.02	0.37	0.11	0.07		0.01	0.06	2.38	18.87	11.56
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	0.98	0.11	1.57	0.55	0.10	0.00	0.13	0.73	54.48	67.35	47.57
	Other Manufacturing Industry	0.01	0.14	0.11	0.20	0.09	0.02	0.00	0.37	0.17	16.66	20.90	12.97
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.02	0.24	0.00	0.68	1.11	0.01	0.00	0.02	0.02	58.28	111.26	68.56
	Gas Production & Supply		0.02	0.00	0.07	0.01	0.08	0.00	0.01	0.17	4.00	3.31	3.93
	Tap Water Production & Supply		0.02	0.00	0.03	0.00			0.01	0.00	0.30	14.51	6.15
Industry Total	Industry Total	6.12	6.01	0.84	13.69	18.44	2.74	5.62	36.71	17.07	1,165.68	871.69	901.51

(continued)

Table 4A.6.7. Industrial Sector End Use by Subsector and Energy Type, 2001

Physical units

E CYear		2001						
Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
E CProcess2	E CProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	17.29	1.22	1.87	0.48	0.08	0.07	0.05
	Petroleum and Natural Gas Extraction	1.33		0.03	0.05			
	Ferrous Metals Mining and Dressing	0.47	0.00	0.14	0.51			
	Nonferrous Metals Mining and Dressing	0.71	0.00	0.00	0.20			
	Nonmetal Mineral Mining and Dressing	2.49	0.02	0.01	0.26			0.02
	Other Minerals Mining and Dressing	0.05			0.00			
	Logging and Transport of Wood and Bamboo	0.74			0.00			
Manufacture	Food, Beverage, and Tobacco Processing	19.70	0.69	0.90	0.36	0.02	0.01	0.00
	Textile Industry	11.53	0.03	0.08	0.04	0.02	0.01	
	Garments and Other Fiber Products	1.05	0.00	0.00	0.02		0.00	
	Leather, Furs, Down, and Related Products	0.65	0.00	0.00	0.02			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	2.03	0.00	0.00	0.01			0.00
	Furniture Manufacturing	0.42		0.00	0.01			
	Papermaking and Paper Products	11.19	0.10	0.45	0.02			
	Printing and Record Medium Reproduction	0.47	0.00		0.00	0.00	0.00	
	Cultural, Educational, and Sports Articles	0.17	0.00		0.02		0.00	
	Petroleum Processing and Coking	5.71	1.02	0.29	0.41	1.15	0.32	0.23
	Raw Chemical Materials and Chemical Products	43.74	0.92	1.06	10.51	0.96	0.25	0.48
	Medical and Pharmaceutical Products	4.21	0.01	0.14	0.01	0.02		0.05
	Chemical Fiber	2.62		0.02	0.25			
	Rubber Products	2.58	0.01	0.01	0.03	0.00		
	Plastic Products	1.20	0.01	0.02	0.07			
	Nonmetal Mineral Products	84.59	0.99	3.85	3.15	0.38	0.78	0.15
	Smelting and Rolling of Ferrous Metals	28.82	3.37	2.70	81.37	15.76	35.80	1.17
	Smelting and Rolling of Nonferrous Metals	5.76	0.51	0.63	2.12	0.02	0.90	0.12
	Metal Products	1.97	0.10	0.01	1.31	0.01	0.03	0.01
	Machinery, Electric Equipment, Electronic Manufacturing	11.70	0.77	0.18	3.32	0.14	0.73	
	Other Manufacturing Industry	2.51	0.00	0.09	0.31		0.05	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	20.18	0.19	1.87				0.00
	Gas Production & Supply	2.08	0.22	0.00		0.54	0.12	0.02
	Tap Water Production & Supply	0.24	0.01					
Industry Total	Industry Total	288.24	10.20	14.37	104.85	19.11	39.08	2.31

(continued)

Table 4A.6.7. Industrial Sector End Use by Subsector and Energy Type, 201

Physical units

EYear		2001											
Sum of ECAmount		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
EProcess2	EProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.02	0.31	0.06	0.51		0.00		0.03		12.34	44.80	34.98
	Petroleum and Natural Gas Extraction	4.23	0.38	0.00	1.59	1.54	0.18	0.60	0.29	5.94	49.35	34.08	36.98
	Ferrous Metals Mining and Dressing		0.05	0.00	0.12						0.03	6.50	3.81
	Nonferrous Metals Mining and Dressing		0.05	0.01	0.12	0.00					0.11	8.58	4.43
	Nonmetal Mineral Mining and Dressing		0.08	0.00	0.31	0.01				0.00	12.34	8.93	6.68
	Other Minerals Mining and Dressing		0.00		0.01							0.88	0.41
	Logging and Transport of Wood and Bamboo		0.15		0.10		0.00				1.84	1.39	1.51
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.84	0.01	0.61	0.28	0.04		0.09	0.04	53.09	35.67	34.50
	Textile Industry	0.00	0.37	0.04	0.35	0.63	0.05	0.00	0.07	0.11	72.02	38.59	28.71
	Garments and Other Fiber Products	0.00	0.08	0.00	0.15	0.14	0.01		0.01		2.20	5.41	3.58
	Leather, Furs, Down, and Related Products		0.05	0.00	0.13	0.03	0.00		0.01		1.10	3.00	2.04
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.04	0.00	0.07	0.03	0.00		0.00		9.07	3.70	3.47
	Furniture Manufacturing		0.04	0.00	0.03	0.01	0.00		0.00		1.50	1.40	1.03
	Papermaking and Paper Products	0.01	0.12	0.04	0.21	0.19	0.01	0.00	0.03	0.03	47.35	25.14	21.06
	Printing and Record Medium Reproduction		0.06	0.06	0.07	0.02	0.00		0.02	0.01	1.53	3.50	2.16
	Cultural, Educational, and Sports Articles	0.00	0.03	0.01	0.11	0.01	0.00		0.00		0.35	2.50	1.40
	Petroleum Processing and Coking	1.04	0.15	0.18	0.70	2.86	1.15	3.84	23.55	1.17	263.40	26.63	75.59
	Raw Chemical Materials and Chemical Products	0.70	0.50	0.09	1.16	3.01	0.63	0.45	9.11	9.55	237.39	118.48	135.04
	Medical and Pharmaceutical Products		0.10	0.00	0.07	0.05	0.00		0.01	0.07	38.01	9.92	8.93
	Chemical Fiber	0.06	0.04	0.00	0.09	0.51	0.04	0.63	2.58		59.68	19.62	17.74
	Rubber Products	0.00	0.08	0.00	0.07	0.13	0.00		0.04		10.33	10.67	6.99
	Plastic Products	0.00	0.11	0.00	0.38	0.11	0.02		0.03	0.01	1.70	12.71	7.09
	Nonmetal Mineral Products	0.09	0.47	0.02	2.93	3.20	0.45	0.06	0.22	0.28	14.34	79.31	111.09
	Smelting and Rolling of Ferrous Metals	0.10	0.31	0.06	0.73	2.71	0.00		0.01	0.17	133.70	116.41	182.30
	Smelting and Rolling of Nonferrous Metals	0.01	0.11	0.01	0.42	0.59	0.01		0.27	0.05	67.72	71.69	40.74
	Metal Products	0.00	0.22	0.02	0.41	0.12	0.08		0.01	0.08	2.70	22.36	13.22
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	0.99	0.12	1.59	0.55	0.12	0.00	0.14	0.84	58.47	74.48	50.79
	Other Manufacturing Industry	0.01	0.15	0.11	0.20	0.07	0.02	0.00	0.37	0.15	15.84	21.92	13.11
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.02	0.24	0.00	0.64	1.07	0.01	0.00	0.01	0.03	61.68	114.41	67.09
	Gas Production & Supply		0.02	0.00	0.08	0.01	0.09	0.00	0.01	0.19	4.15	3.71	4.21
	Tap Water Production & Supply		0.03	0.00	0.02	0.00			0.01	0.00	0.35	14.65	6.19
Industry Total	Industry Total	6.31	6.17	0.86	13.96	17.88	2.91	5.59	36.91	18.69	1,233.66	941.12	926.92

(continued)

Table 4A.6.8. Industrial Sector End Use by Subsector and Energy Type, 2002

Physical units

EYear		2002						
Sum of ECAmount		ECMaterial ECUom						
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECPProcess2	ECPProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	16.68	1.18	1.81	0.48	0.06	0.07	0.05
	Petroleum and Natural Gas Extraction	1.19		0.03	0.05			
	Ferrous Metals Mining and Dressing	0.46	0.00	0.12	0.52			
	Nonferrous Metals Mining and Dressing	0.68	0.00	0.00	0.28			
	Nonmetal Mineral Mining and Dressing	2.29	0.02	0.01	0.33			0.02
	Other Minerals Mining and Dressing	0.02			0.00			
	Logging and Transport of Wood and Bamboo	0.65			0.00			
Manufacture	Food, Beverage, and Tobacco Processing	18.78	0.56	0.92	0.33	0.03	0.01	
	Textile Industry	11.12	0.02	0.08	0.05	0.03		0.02
	Garments and Other Fiber Products	1.01	0.00	0.00	0.02		0.00	
	Leather, Furs, Down, and Related Products	0.63	0.00		0.02			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	1.95	0.00	0.00	0.02			0.00
	Furniture Manufacturing	0.38		0.00	0.01			
	Papermaking and Paper Products	11.20	0.10	0.48	0.02			
	Printing and Record Medium Reproduction	0.45	0.01		0.00	0.00	0.00	
	Cultural, Educational, and Sports Articles	0.10	0.00		0.02			
	Petroleum Processing and Coking	5.29	1.12	0.31	0.46	1.35	0.38	0.21
	Raw Chemical Materials and Chemical Products	43.50	0.98	0.95	11.62	1.23	0.30	0.45
	Medical and Pharmaceutical Products	4.06	0.01	0.15	0.01	0.02		0.05
	Chemical Fiber	2.53		0.03	0.26			
	Rubber Products	2.46	0.01	0.01	0.02	0.00		
	Plastic Products	1.00	0.01	0.01	0.05			
	Nonmetal Mineral Products	81.85	1.10	3.99	3.72	0.34	0.76	0.22
	Smelting and Rolling of Ferrous Metals	27.80	3.38	2.67	92.53	16.59	35.67	1.36
	Smelting and Rolling of Nonferrous Metals	5.56	0.52	0.69	2.23	0.02	0.81	0.10
	Metal Products	1.90	0.10	0.01	1.53	0.02	0.03	0.00
	Machinery, Electric Equipment, Electronic Manufacturing	11.05	0.74	0.17	3.57	0.16	0.75	0.01
	Other Manufacturing Industry	2.18	0.00	0.09	0.28		0.04	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	19.00	0.18	1.97				0.00
	Gas Production & Supply	2.01	0.21	0.00		0.64	0.12	0.02
	Tap Water Production & Supply	0.22						
Industry Total	Industry Total	278.01	10.25	14.50	118.41	20.48	38.96	2.50

(continued)

Table 4A.6.8. Industrial Sector End Use by Subsector and Energy Type, 20

Physical units

ECYear		2002											
Sum of ECAmount													
		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.01	0.30	0.06	0.55		0.00		0.03		6.61	49.88	36.35
	Petroleum and Natural Gas Extraction	4.45	0.39	0.00	1.80	1.44	0.20	0.64	0.35	6.09	47.13	34.95	37.99
	Ferrous Metals Mining and Dressing		0.06	0.00	0.16						0.03	7.56	4.29
	Nonferrous Metals Mining and Dressing		0.05	0.01	0.14	0.00					0.12	8.80	4.61
	Nonmetal Mineral Mining and Dressing		0.09	0.00	0.34	0.01				0.00	13.03	9.56	6.92
	Other Minerals Mining and Dressing		0.00		0.01							0.94	0.41
	Logging and Transport of Wood and Bamboo		0.15		0.11		0.00				1.32	1.10	1.32
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.83	0.01	0.69	0.26	0.04		0.11	0.04	54.87	40.80	35.98
	Textile Industry	0.00	0.35	0.04	0.37	0.64	0.04	0.00	0.06	0.08	84.26	45.41	31.56
	Garments and Other Fiber Products	0.00	0.08	0.01	0.15	0.15	0.01		0.01		2.22	5.90	3.79
	Leather, Furs, Down, and Related Products		0.05	0.00	0.13	0.03	0.00		0.01		0.91	3.57	2.24
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.03	0.00	0.06	0.03	0.00		0.00		9.58	3.76	3.43
	Furniture Manufacturing		0.04	0.00	0.03	0.01	0.00		0.00		2.05	1.12	0.93
	Papermaking and Paper Products	0.01	0.16	0.03	0.29	0.20	0.01	0.00	0.04	0.03	63.16	28.50	23.16
	Printing and Record Medium Reproduction		0.07	0.06	0.07	0.02	0.00		0.02	0.01	1.55	3.38	2.10
	Cultural, Educational, and Sports Articles	0.00	0.03	0.01	0.12	0.01	0.00		0.00		0.27	3.21	1.65
	Petroleum Processing and Coking	1.10	0.16	0.17	0.75	2.61	1.26	3.91	26.64	1.15	245.39	33.06	81.98
	Raw Chemical Materials and Chemical Products	0.65	0.55	0.10	1.23	3.15	0.70	0.47	11.69	10.20	280.15	135.56	149.43
	Medical and Pharmaceutical Products		0.11	0.00	0.07	0.05	0.00		0.02	0.10	38.71	9.79	8.84
	Chemical Fiber	0.07	0.04	0.00	0.10	0.52	0.04	0.61	3.03		58.97	20.65	18.73
	Rubber Products	0.00	0.08	0.00	0.07	0.12			0.04		7.64	10.89	6.91
	Plastic Products	0.01	0.12	0.00	0.37	0.09	0.02		0.03	0.01	1.60	14.35	7.55
	Nonmetal Mineral Products	0.10	0.56	0.02	2.97	3.34	0.49	0.06	0.27	0.35	15.86	87.96	114.05
	Smelting and Rolling of Ferrous Metals	0.13	0.31	0.06	0.80	2.35	0.01		0.01	0.23	132.50	132.31	199.20
	Smelting and Rolling of Nonferrous Metals	0.01	0.11	0.01	0.43	0.66	0.01		0.29	0.07	79.60	82.38	45.60
	Metal Products	0.00	0.20	0.02	0.44	0.13	0.08		0.03	0.08	3.00	28.21	15.82
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.00	0.12	1.81	0.55	0.14	0.00	0.15	1.01	62.01	87.51	56.55
Other Manufacturing Industry	0.00	0.13	0.11	0.24	0.07	0.02		0.44	0.13	18.96	22.85	13.40	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.01	0.24	0.01	0.65	1.08	0.00	0.00	0.02	0.02	67.14	130.82	73.14
	Gas Production & Supply		0.01		0.11	0.01	0.11	0.00	0.01	0.19	3.80	3.70	4.26
	Tap Water Production & Supply		0.02	0.00	0.02	0.00			0.01	0.00	0.40	13.99	5.90
Industry Total	Industry Total	6.58	6.31	0.87	15.05	17.53	3.19	5.70	43.32	19.79	1,302.82	1,062.45	998.09

(continued)

Table 4A.6.9. Industrial Sector End Use by Subsector and Energy Type, 2003

Physical units

ECYear		2003						
Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	20.44	1.47	2.83	0.43	0.11		0.06
	Petroleum and Natural Gas Extraction	1.30		0.03	0.07			
	Ferrous Metals Mining and Dressing	0.84	0.01	0.12	0.57			
	Nonferrous Metals Mining and Dressing	0.70	0.00		0.28			
	Nonmetal Mineral Mining and Dressing	3.00	0.02	0.01	0.22			0.03
	Other Minerals Mining and Dressing	0.73			0.00			
Manufacturing	Manufacturing	254.51	9.35	37.69	138.15	22.49	43.43	2.93
Manufacture	Food, Beverage, and Tobacco Processing	18.46	0.56	1.02	0.31	0.03		
	Textile Industry	12.57	0.03	0.15	0.03	0.10		
	Garments and Other Fiber Products	1.16	0.00	0.00	0.01			
	Leather, Furs, Down, and Related Products	0.65	0.00		0.03			
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	2.42	0.00		0.02			
	Furniture Manufacturing	0.46			0.01			
	Papermaking and Paper Products	11.18	0.12	0.50	0.02			
	Printing and Record Medium Reproduction	0.58	0.01					
	Cultural, Educational, and Sports Articles	0.17	0.00		0.01			
	Petroleum Processing and Coking	6.29	1.51	0.45	0.56	1.77	0.36	0.22
	Raw Chemical Materials and Chemical Products	50.76	0.94	2.23	11.16	1.25	0.34	0.58
	Medical and Pharmaceutical Products	4.26	0.02	0.19	0.01			0.06
	Chemical Fiber	2.71		0.03	0.30			
	Rubber Products	2.62	0.01	0.01	0.02			
	Plastic Products	1.29	0.01	0.02	0.01			
	Nonmetal Mineral Products	84.22	1.35	23.56	2.85	0.27	0.87	0.25
	Smelting and Rolling of Ferrous Metals	31.48	3.51	8.65	115.21	19.02	39.74	1.73
	Smelting and Rolling of Nonferrous Metals	8.07	0.40	0.54	2.25		1.20	0.08
	Metal Products	1.77	0.09	0.01	1.27			
	Machinery, Electric Equipment, Electronic Manufacturing	11.26	0.79	0.22	3.75	0.06	0.93	0.01
	Other Manufacturing Industry	2.11	0.00	0.10	0.30			
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	24.01	0.33	1.38		0.80	0.20	0.02
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	22.19	0.15	1.38				
	Gas Production & Supply	1.60	0.18			0.80	0.20	0.02
	Tap Water Production & Supply	0.22						
Industry Total	Industry Total	305.53	11.17	42.05	139.72	23.40	43.63	3.04

(continued)

Table 4A.6.9. Industrial Sector End Use by Subsector and Energy Type, 2003

Physical units

ECYear		2003												
Sum of ECAmount								Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
ECProcess2	ECProcess	Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil								
		Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
Mining	Coal Mining and Dressing	0.01	0.32	0.06	0.50					0.02		60.00	52.28	40.85
	Petroleum and Natural Gas Extraction	5.52	0.38	0.00	1.60	1.25	0.21	0.60	0.20	6.37	50.02	34.93	39.26	
	Ferrous Metals Mining and Dressing		0.06		0.19							10.90	6.01	
	Nonferrous Metals Mining and Dressing		0.05	0.01	0.16						0.10	12.70	6.23	
	Nonmetal Mineral Mining and Dressing		0.08	0.00	0.44	0.01					11.59	11.25	8.09	
	Other Minerals Mining and Dressing		0.14		0.11						2.38	2.92	2.15	
Manufacturing	Manufacturing	2.38	4.85	0.79	11.75	16.38	3.26	5.25	40.31	17.11	1199.79	951.70	948.83	
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.65	0.01	0.67	0.24	0.03	0.00	0.10		51.64	36.00	33.38	
	Textile Industry	0.00	0.26	0.04	0.35	0.52	0.06		0.05	0.09	85.38	54.48	36.05	
	Garments and Other Fiber Products	0.00	0.09	0.01	0.18	0.12	0.01				3.65	6.59	4.22	
	Leather, Furs, Down, and Related Products		0.04	0.00	0.17	0.04	0.00				0.87	4.25	2.59	
	Timber Processing, Bamboo, Cane, Palm, and Straw Products		0.03	0.00	0.07	0.03					7.21	5.33	4.34	
	Furniture Manufacturing		0.04		0.04	0.01	0.00				1.50	1.50	1.12	
	Papermaking and Paper Products	0.01	0.19	0.02	0.35	0.21	0.01		0.03		64.18	31.16	24.38	
	Printing and Record Medium Reproduction		0.06	0.06	0.06	0.02	0.00		0.02		2.13	7.80	3.95	
	Cultural, Educational, and Sports Articles	0.00	0.03	0.02	0.14	0.01	0.00				0.13	2.90	1.59	
	Petroleum Processing and Coking	1.34	0.22	0.17	0.87	3.23	1.49	4.08	25.66	1.60	207.47	33.56	83.59	
	Raw Chemical Materials and Chemical Products	0.73	0.44	0.10	1.28	3.34	0.75	0.50	13.19	13.20	332.06	163.03	174.84	
	Medical and Pharmaceutical Products		0.13	0.00	0.05	0.05	0.00		0.02	0.10	46.07	12.40	10.33	
	Chemical Fiber	0.07	0.03	0.00	0.09	0.49	0.03	0.60	0.01		67.99	20.75	14.84	
	Rubber Products	0.00	0.09	0.08	0.08	0.14			0.03		8.02	12.77	7.82	
	Plastic Products	0.01	0.10	0.01	0.40	0.11	0.02		0.02		1.61	17.10	8.86	
	Nonmetal Mineral Products	0.10	0.58	0.02	2.87	3.74	0.55	0.07	0.20	0.39	13.47	103.09	135.82	
	Smelting and Rolling of Ferrous Metals	0.08	0.36	0.03	0.94	2.55	0.01		0.02	0.33	135.87	164.80	245.18	
	Smelting and Rolling of Nonferrous Metals	0.01	0.12	0.01	0.52	0.72	0.02		0.39	0.08	87.85	107.17	58.13	
	Metal Products		0.21	0.02	0.44	0.10	0.08		0.02	0.10	1.98	35.59	18.40	
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.13	0.16	1.96	0.68	0.16	0.00	0.12	1.12	62.73	107.24	65.70	
	Other Manufacturing Industry	0.00	0.06	0.13	0.20	0.06	0.02	0.00	0.45	0.10	18.00	24.20	13.70	
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	0.01	0.29	0.01	0.85	1.35	0.13	0.01	0.03	0.42	88.97	187.21	101.99	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.01	0.25	0.01	0.70	1.33	0.00	0.00	0.02	0.03	84.50	169.85	91.80	
	Gas Production & Supply		0.01		0.12	0.01	0.13	0.01	0.01	0.40	4.04	2.92	4.09	
	Tap Water Production & Supply		0.03		0.03	0.00					0.43	14.44	6.09	
Industry Total	Industry Total	7.93	6.17	0.88	15.59	18.98	3.60	5.86	40.57	23.90	1358.85	1263.90	1153.39	

(continued)

Table 4A.6.10. Industrial Sector End Use by Subsector and Energy Type, 2004

Physical units

EYear		2004						
Sum of ECAmount		ECMaterial	ECUom					
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	38.05	1.62	2.75	0.24	0.07	0.26	0.02
	Petroleum and Natural Gas Extraction	1.34	0.00		0.00			
	Ferrous Metals Mining and Dressing	0.88	0.04	0.00	0.62	0.04	0.01	
	Nonferrous Metals Mining and Dressing	0.78	0.07	0.02	0.12	0.00		
	Nonmetal Mineral Mining and Dressing	2.92	0.10	0.04	0.09			
	Other Minerals Mining and Dressing	0.02						
Manufacturing	Manufacturing	326.04	18.08	41.77	166.72	24.28	46.60	3.87
Manufacture	Food, Beverage, and Tobacco Processing	21.00	0.25	0.74	0.11	0.00	0.03	
	Textile Industry	15.60	0.10	0.12	0.02	0.05	0.01	
	Garments and Other Fiber Products	1.51	0.03	0.02	0.01	0.00	0.00	
	Leather, Furs, Down, and Related Products	0.80	0.00	0.01	0.00	0.00	0.00	
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	3.33	0.03	0.02	0.01			
	Furniture Manufacturing	0.25	0.00	0.00	0.01			
	Papermaking and Paper Products	15.46	0.29	0.83	0.07	0.01	0.00	
	Printing and Record Medium Reproduction	0.35	0.00	0.00	0.00		0.01	
	Cultural, Educational, and Sports Articles	0.16	0.00	0.00	0.03			
	Petroleum Processing and Coking	7.36	1.82	0.83	0.53	1.91	0.50	0.51
	Raw Chemical Materials and Chemical Products	59.85	3.17	1.64	11.21	0.64	0.56	1.25
	Medical and Pharmaceutical Products	4.22	0.16	0.04	0.01	0.01	0.00	
	Chemical Fiber	1.99	0.02	0.00	0.35			
	Rubber Products	3.01	0.04	0.07	0.03		0.01	
	Plastic Products	2.14	0.03	0.02	0.02	0.00		
	Nonmetal Mineral Products	120.98	3.14	35.49	2.04	0.34	1.18	0.39
	Smelting and Rolling of Ferrous Metals	39.32	7.69	1.09	145.01	20.61	40.67	1.53
	Smelting and Rolling of Nonferrous Metals	9.14	0.57	0.48	2.56	0.45	2.01	0.19
	Metal Products	2.41	0.07	0.05	0.73	0.02	0.02	
	Machinery, Electric Equipment, Electronic Manufacturing	13.72	0.54	0.20	3.90	0.21	1.57	
	Other Manufacturing Industry	3.43	0.11	0.10	0.06		0.02	
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	24.19	0.04	0.67	0.07	0.84	0.39	0.05
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	23.13	0.04	0.66	0.06	0.10	0.11	0.02
	Gas Production & Supply	0.77	0.00	0.00	0.02	0.74	0.28	0.03
	Tap Water Production & Supply	0.30	0.00	0.00	0.00			
Industry Total	Industry Total	394.21	19.95	45.25	167.87	25.23	47.25	3.94

(continued)

Table 4A.6.10. Industrial Sector End Use by Subsector and Energy Type, 2004

Physical units

ECYear		2004												
Sum of ECAmount														
		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy	
		Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce	
Mining	Coal Mining and Dressing		0.18	0.04	0.62	0.06	0.00		0.02	0.11	4.73	57.62	55.57	
	Petroleum and Natural Gas Extraction	4.99	0.37	0.00	1.76	0.34	0.02	0.37	0.22	5.16	53.42	35.90	35.67	
	Ferrous Metals Mining and Dressing		0.07	0.01	0.33	0.01	0.00		0.00	0.00	0.01	14.00	7.54	
	Nonferrous Metals Mining and Dressing		0.03	0.01	0.17	0.00	0.00		0.00	0.00	0.00	14.45	6.88	
	Nonmetal Mineral Mining and Dressing		0.07	0.01	0.55	0.01	0.00		0.00	0.00	9.25	13.16	8.82	
	Other Minerals Mining and Dressing		0.00	0.00	0.01	0.00						2.01	0.84	
Manufacturing	Manufacturing	3.45	4.04	0.54	12.44	18.41	3.99	6.30	51.64	19.43	1243.95	1130.30	1139.45	
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.33	0.01	0.83	0.37	0.08	0.12	0.05	0.25	63.46	40.00	37.05	
	Textile Industry	0.00	0.21	0.02	0.54	0.58	0.03	0.00	0.03	0.05	109.89	71.93	46.22	
	Garments and Other Fiber Products	0.00	0.08	0.01	0.26	0.05	0.01		0.01	0.01	5.64	7.26	4.87	
	Leather, Furs, Down, and Related Products	0.00	0.04	0.00	0.17	0.11	0.00		0.00	0.00	1.08	4.54	2.93	
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	0.00	0.03	0.01	0.09	0.02	0.00		0.00	0.01	7.48	6.16	5.43	
	Furniture Manufacturing	0.00	0.02	0.00	0.06	0.00	0.01			0.00	0.40	2.06	1.18	
	Papermaking and Paper Products	0.00	0.09	0.01	0.25	0.26	0.08		0.00	0.04	80.26	35.93	30.20	
	Printing and Record Medium Reproduction		0.06	0.01	0.08	0.01	0.01		0.00	0.02	1.12	7.84	3.73	
	Cultural, Educational, and Sports Articles	0.00	0.03	0.00	0.14	0.02	0.01		0.00		0.21	3.83	2.01	
	Petroleum Processing and Coking	1.82	0.25	0.02	0.89	4.29	1.60	5.56	33.69	1.52	223.12	41.29	104.60	
	Raw Chemical Materials and Chemical Products	1.39	0.46	0.09	1.34	3.57	0.83	0.58	16.46	13.03	390.23	184.92	199.93	
	Medical and Pharmaceutical Products		0.08	0.01	0.10	0.06	0.00		0.00	0.07	36.73	13.09	10.16	
	Chemical Fiber	0.08	0.01	0.01	0.08	0.25	0.01	0.02	0.01	0.02	50.02	22.53	13.27	
	Rubber Products	0.01	0.10	0.00	0.10	0.17	0.02		0.02	0.04	8.09	14.94	9.21	
	Plastic Products	0.00	0.15	0.01	0.42	0.16	0.02		0.07	0.04	2.78	23.02	12.22	
	Nonmetal Mineral Products	0.12	0.34	0.03	2.31	4.78	0.68	0.02	0.54	1.96	6.34	120.93	181.52	
	Smelting and Rolling of Ferrous Metals	0.00	0.22	0.02	0.84	1.99	0.07		0.05	0.76	118.35	206.36	293.93	
	Smelting and Rolling of Nonferrous Metals	0.00	0.07	0.02	0.61	0.84	0.04		0.55	0.28	72.48	125.79	67.71	
	Metal Products	0.00	0.20	0.03	0.52	0.11	0.10		0.01	0.08	1.85	43.28	21.58	
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.19	0.22	2.65	0.67	0.37	0.01	0.10	1.25	55.20	132.52	79.25	
	Other Manufacturing Industry	0.00	0.08	0.01	0.16	0.06	0.03		0.05	0.00	9.22	22.08	12.46	
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	0.01	0.32	0.00	0.82	0.34	0.81	0.01	0.05	0.55	103.80	215.93	113.41	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.00	0.27	0.00	0.63	0.34	0.00	0.00	0.05	0.04	100.28	194.99	101.29	
	Gas Production & Supply	0.01	0.02	0.00	0.17	0.00	0.81	0.01	0.00	0.50	3.04	3.43	4.73	
	Tap Water Production & Supply		0.04	0.00	0.02	0.00	0.00			0.00	0.48	17.51	7.39	
Industry Total	Industry Total	8.45	5.07	0.61	16.70	19.17	4.82	6.69	51.93	25.26	1415.17	1483.37	1368.18	

(continued)

Table 4A.6.11. Industrial Sector End Use by Subsector and Energy Type, 2005

Physical units

ECYear		2005							
Sum of ECAmount		ECMaterial	ECUom						
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products	
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt	
Mining	Coal Mining and Dressing	38.87	1.67	2.92	0.35	0.10	0.26	0.03	
	Petroleum and Natural Gas Extraction	1.34	0.00		0.00		0.00		
	Ferrous Metals Mining and Dressing	1.05	0.05	0.03	0.79	0.05	0.01		
	Nonferrous Metals Mining and Dressing	0.78	0.08	0.02	0.15				
	Nonmetal Mineral Mining and Dressing	3.55	0.10	0.03	0.12				
	Other Minerals Mining and Dressing	0.02							
Manufacturing	Manufacturing	337.86	18.70	44.26	229.85	36.46	58.31	3.84	
Manufacture	Food, Beverage, and Tobacco Processing	22.00	0.26	0.78	0.14	0.00	0.03		
	Textile Industry	15.60	0.11	0.09	0.03	0.03	0.01		
	Garments and Other Fiber Products	1.71	0.04	0.01	0.01	0.00	0.01		
	Leather, Furs, Down, and Related Products	0.80	0.00	0.01	0.00	0.00	0.00		
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	3.33	0.03	0.02	0.02		0.00		
	Furniture Manufacturing	0.25	0.00	0.00	0.01				
	Papermaking and Paper Products	15.46	0.30	0.58	0.04	0.02	0.00		
	Printing and Record Medium Reproduction	0.35	0.00	0.00	0.00	0.00	0.01		
	Cultural, Educational, and Sports Articles	0.16	0.00	0.00	0.03				
	Petroleum Processing and Coking	8.39	2.36	0.54	0.62	4.39	0.50	0.42	
	Raw Chemical Materials and Chemical Products	63.73	3.28	1.73	16.09	0.82	0.56	1.47	
	Medical and Pharmaceutical Products	4.22	0.17	0.03	0.01	0.01	0.01		
	Chemical Fiber	1.99	0.02	0.00	0.48				
	Rubber Products	3.01	0.04	0.04	0.02	0.00	0.01		
	Plastic Products	2.14	0.02	0.02	0.02	0.00			
	Nonmetal Mineral Products	122.60	3.25	37.94	1.96	0.36	1.62	0.40	
	Smelting and Rolling of Ferrous Metals	44.17	7.49	1.58	200.13	29.95	52.01	1.28	
	Smelting and Rolling of Nonferrous Metals	9.33	0.59	0.63	3.45	0.63	1.95	0.27	
	Metal Products	2.41	0.08	0.05	0.74	0.03	0.03		
	Machinery, Electric Equipment, Electronic Manufacturing	13.72	0.53	0.15	6.00	0.21	1.55		
	Other Manufacturing Industry	2.48	0.12	0.07	0.06	0.00	0.04		
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	26.72	0.04	0.87	0.07	0.76	0.46	0.03	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	25.65	0.04	0.86	0.06	0.06	0.07	0.01	
	Gas Production & Supply	0.77	0.00	0.00	0.02	0.70	0.40	0.02	
	Tap Water Production & Supply	0.30	0.00	0.00	0.00				
Industry Total	Industry Total	410.19	20.64	48.13	231.33	37.38	59.04	3.90	

(continued)

Table 4A.6.11. Industrial Sector End Use by Subsector and Energy Type, 2005

Physical units

ECYear		2005												
Sum of ECAmount														
		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy	
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce	
Mining	Coal Mining and Dressing		0.15	0.03	0.66	0.05	0.00	0.00	0.01	0.17	2.94	58.81	56.92	
	Petroleum and Natural Gas Extraction	5.04	0.27	0.00	1.97	0.29	0.03	0.39	0.19	5.34	51.82	38.44	37.05	
	Ferrous Metals Mining and Dressing		0.05	0.01	0.35	0.01			0.00	0.00	0.01	20.51	10.49	
	Nonferrous Metals Mining and Dressing	0.00	0.05	0.01	0.14	0.00	0.00		0.00	0.00	0.00	15.73	7.40	
	Nonmetal Mineral Mining and Dressing		0.04	0.01	0.65	0.01	0.00		0.00	0.00	12.68	11.39	8.79	
	Other Minerals Mining and Dressing		0.00	0.00	0.01							2.80	1.16	
Manufacturing	Manufacturing	3.66	3.81	0.51	12.77	16.64	4.40	7.51	50.53	23.15	1487.86	1309.48	1306.20	
Manufacture	Food, Beverage, and Tobacco Processing	0.01	0.30	0.01	1.01	0.45	0.07	0.11	0.03	0.25	82.79	47.94	41.96	
	Textile Industry	0.00	0.18	0.02	0.42	0.42	0.03	0.00	0.02	0.06	146.45	82.16	51.14	
	Garments and Other Fiber Products	0.00	0.10	0.01	0.30	0.07	0.01		0.01	0.01	6.20	8.74	5.72	
	Leather, Furs, Down, and Related Products	0.00	0.05	0.00	0.15	0.12	0.00		0.00	0.00	1.65	5.47	3.31	
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	0.00	0.05	0.01	0.12	0.03	0.00		0.00	0.01	4.76	10.53	7.16	
	Furniture Manufacturing	0.00	0.03	0.00	0.09	0.00	0.01			0.00	0.54	2.42	1.39	
	Papermaking and Paper Products	0.01	0.08	0.01	0.25	0.28	0.08		0.00	0.05	98.39	40.68	32.60	
	Printing and Record Medium Reproduction		0.07	0.01	0.07	0.02	0.01		0.00	0.02	0.97	6.06	3.02	
	Cultural, Educational, and Sports Articles	0.00	0.04	0.00	0.12	0.03	0.01		0.00		0.31	4.24	2.16	
	Petroleum Processing and Coking	1.55	0.22	0.02	0.54	2.55	1.70	6.77	34.04	1.48	284.36	31.27	103.90	
	Raw Chemical Materials and Chemical Products	1.82	0.44	0.06	1.46	3.03	0.99	0.58	14.98	15.16	449.80	212.47	222.23	
	Medical and Pharmaceutical Products		0.08	0.01	0.09	0.05	0.01		0.00	0.11	40.23	15.29	11.19	
	Chemical Fiber	0.11	0.01	0.01	0.08	0.33	0.01	0.01	0.01	0.03	50.12	23.27	13.86	
	Rubber Products	0.01	0.10	0.00	0.10	0.18	0.01		0.01	0.04	8.32	20.88	11.58	
	Plastic Products	0.00	0.13	0.01	0.39	0.18	0.02		0.11	0.06	3.54	32.17	15.97	
	Nonmetal Mineral Products	0.14	0.25	0.03	2.68	5.26	0.73	0.02	0.40	2.60	6.25	141.61	194.69	
	Smelting and Rolling of Ferrous Metals	0.00	0.22	0.02	0.97	1.87	0.11		0.07	1.07	153.55	254.44	380.70	
	Smelting and Rolling of Nonferrous Metals	0.00	0.06	0.02	0.56	0.90	0.06		0.72	0.42	75.86	146.96	78.06	
	Metal Products	0.00	0.18	0.03	0.55	0.16	0.12		0.01	0.08	2.03	50.60	24.66	
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.17	0.22	2.67	0.69	0.39	0.01	0.09	1.69	66.22	144.12	86.92	
	Other Manufacturing Industry	0.00	0.08	0.01	0.13	0.04	0.03		0.02	0.00	5.53	28.16	14.00	
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	0.00	0.26	0.00	0.69	0.33	0.86	0.02	0.06	0.51	107.36	220.36	116.95	
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.00	0.20	0.00	0.56	0.32	0.00	0.00	0.06	0.05	104.55	198.71	104.64	
	Gas Production & Supply	0.00	0.02	0.00	0.10	0.01	0.86	0.01	0.00	0.46	2.17	2.98	4.45	
	Tap Water Production & Supply	0.00	0.03	0.00	0.03	0.00	0.00			0.01	0.64	18.68	7.87	
Industry Total	Industry Total	8.70	4.61	0.58	17.25	17.33	5.29	7.91	50.79	29.18	1662.68	1677.52	1544.97	

(continued)

Table 4A.6.12. Industrial Sector End Use by Subsector and Energy Type, 2006

Physical units

EYear		2006						
Sum of ECAmount		ECMaterial ECUom						
		Coal Raw	Coal Cleaned	Coal Washed	Coke	Coke Oven Gas	Coal Gas not Coke Source	Coke Other Products
ECProcess2	ECProcess	Mt	Mt	Mt	Mt	bm3	bm3	Mt
Mining	Coal Mining and Dressing	38.89	1.55	2.99	0.41	0.10	0.26	0.03
	Petroleum and Natural Gas Extraction	1.34	0.00		0.00		0.00	
	Ferrous Metals Mining and Dressing	1.05	0.04	0.03	0.97	0.05	0.01	
	Nonferrous Metals Mining and Dressing	0.78	0.07	0.02	0.18			
	Nonmetal Mineral Mining and Dressing	3.55	0.09	0.04	0.14			
	Other Minerals Mining and Dressing	0.02						
Manufacturing	Manufacturing	337.86	17.36	45.29	269.23	38.00	61.00	4.82
Manufacture	Food, Beverage, and Tobacco Processing	22.00	0.24	0.77	0.15	0.00	0.03	
	Textile Industry	15.60	0.11	0.09	0.03	0.03	0.01	
	Garments and Other Fiber Products	1.71	0.04	0.01	0.01	0.00	0.01	
	Leather, Furs, Down, and Related Products	0.80	0.00	0.01	0.00	0.00	0.00	
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	3.33	0.03	0.02	0.02		0.00	
	Furniture Manufacturing	0.25	0.00	0.00	0.01			
	Papermaking and Paper Products	15.46	0.28	0.58	0.04	0.02	0.00	
	Printing and Record Medium Reproduction	0.35	0.00	0.00	0.00	0.00	0.01	
	Cultural, Educational, and Sports Articles	0.16	0.00	0.00	0.04			
	Petroleum Processing and Coking	8.39	1.96	0.54	0.74	4.50	0.50	0.54
	Raw Chemical Materials and Chemical Products	63.73	3.05	1.73	19.91	0.82	0.57	1.88
	Medical and Pharmaceutical Products	4.22	0.16	0.03	0.01	0.01	0.01	
	Chemical Fiber	1.99	0.02	0.00	0.57			
	Rubber Products	3.01	0.04	0.04	0.02	0.00	0.01	
	Plastic Products	2.14	0.02	0.02	0.03	0.00		
	Nonmetal Mineral Products	122.60	3.02	38.97	2.35	0.36	1.62	0.54
	Smelting and Rolling of Ferrous Metals	44.17	7.17	1.58	233.07	31.38	54.69	1.48
	Smelting and Rolling of Nonferrous Metals	9.33	0.55	0.63	4.14	0.63	1.96	0.37
	Metal Products	2.41	0.07	0.05	0.86	0.03	0.03	
	Machinery, Electric Equipment, Electronic Manufacturing	13.72	0.50	0.15	7.16	0.21	1.55	
	Other Manufacturing Industry	2.48	0.11	0.07	0.06	0.00	0.04	
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	26.72	0.04	0.89	0.09	0.76	0.45	0.04
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	25.65	0.04	0.88	0.07	0.06	0.07	0.02
	Gas Production & Supply	0.77	0.00	0.00	0.02	0.70	0.38	0.02
	Tap Water Production & Supply	0.30	0.00	0.00	0.00			
Industry Total	Industry Total	410.21	19.15	49.26	271.01	38.91	61.71	4.89

(continued)

Table 4A.6.12. Industrial Sector End Use by Subsector and Energy Type, 2006

Physical units

EYear		2006											
Sum of ECAmount													
		Crude Oil	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Liquid Petroleum Gas	Refinery Gas	Petroleum Other Products	Natural Gas	Heat	Electricity	Total Energy
		Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	PJ	TWh	Mtce
ECPProcess2	ECPProcess	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	PJ	TWh	Mtce
Mining	Coal Mining and Dressing		0.16	0.03	0.62	0.06	0.00	0.00	0.01	0.19	3.68	57.99	56.64
	Petroleum and Natural Gas Extraction	5.65	0.28	0.00	1.87	0.32	0.04	0.43	0.22	5.98	36.27	31.60	35.52
	Ferrous Metals Mining and Dressing		0.05	0.01	0.34	0.01			0.00	0.00	0.01	24.86	12.39
	Nonferrous Metals Mining and Dressing		0.04	0.01	0.14	0.00	0.00		0.00	0.00	0.00	17.36	8.07
	Nonmetal Mineral Mining and Dressing		0.04	0.01	0.62	0.01	0.00		0.00	0.00	15.86	12.26	9.23
	Other Minerals Mining and Dressing		0.00	0.00	0.01							3.71	1.53
Manufacturing	Manufacturing	4.10	3.87	0.42	12.21	18.59	4.44	7.74	54.16	27.82	1594.44	1537.15	1456.96
Manufacture	Food, Beverage, and Tobacco Processing	0.00	0.30	0.01	0.95	0.46	0.07	0.10	0.02	0.26	103.64	55.35	45.56
	Textile Industry	0.00	0.18	0.02	0.41	0.45	0.03	0.00	0.02	0.06	167.30	103.12	60.33
	Garments and Other Fiber Products	0.00	0.10	0.01	0.29	0.08	0.01		0.00	0.01	7.44	10.87	6.62
	Leather, Furs, Down, and Related Products	0.00	0.05	0.00	0.14	0.14	0.00		0.00	0.00	2.54	6.43	3.74
	Timber Processing, Bamboo, Cane, Palm, and Straw Products	0.00	0.05	0.01	0.12	0.02	0.00		0.00	0.01	6.19	12.72	8.10
	Furniture Manufacturing	0.00	0.03	0.00	0.08	0.00	0.01			0.01	0.68	2.85	1.56
	Papermaking and Paper Products	0.01	0.09	0.01	0.24	0.31	0.07		0.00	0.06	113.15	44.73	34.74
	Printing and Record Medium Reproduction		0.07	0.01	0.07	0.02	0.01		0.00	0.03	1.19	6.65	3.27
	Cultural, Educational, and Sports Articles	0.00	0.04	0.00	0.11	0.03	0.01		0.00		0.41	4.34	2.20
	Petroleum Processing and Coking	1.74	0.22	0.02	0.50	2.94	1.52	6.94	34.35	1.75	260.33	35.70	106.46
	Raw Chemical Materials and Chemical Products	2.06	0.45	0.05	1.41	3.67	1.04	0.66	17.97	19.00	474.83	243.68	250.43
	Medical and Pharmaceutical Products		0.08	0.00	0.09	0.06	0.01		0.00	0.13	46.27	15.94	11.68
	Chemical Fiber	0.12	0.01	0.00	0.08	0.37	0.01	0.01	0.01	0.04	57.63	24.46	14.76
	Rubber Products	0.01	0.10	0.00	0.10	0.20	0.01		0.01	0.04	9.98	23.70	12.80
	Plastic Products	0.00	0.13	0.01	0.37	0.20	0.02		0.09	0.07	4.07	35.48	17.32
	Nonmetal Mineral Products	0.15	0.25	0.03	2.59	6.04	0.85	0.02	0.51	2.60	7.03	167.38	207.55
	Smelting and Rolling of Ferrous Metals	0.00	0.24	0.02	0.92	1.68	0.13		0.09	1.23	162.18	303.59	434.39
	Smelting and Rolling of Nonferrous Metals	0.00	0.06	0.02	0.53	0.99	0.07		0.94	0.50	87.23	182.76	94.18
	Metal Products	0.00	0.18	0.02	0.53	0.17	0.12		0.01	0.09	2.58	60.52	28.81
	Machinery, Electric Equipment, Electronic Manufacturing	0.01	1.18	0.18	2.55	0.73	0.41	0.01	0.11	1.93	73.93	167.63	98.02
	Other Manufacturing Industry	0.00	0.07	0.01	0.13	0.04	0.03		0.02	0.01	5.82	29.28	14.44
Electric Power, Gas, and Water	Electric Power, Gas, and Water Production & Supply	0.01	0.26	0.00	0.68	0.37	0.86	0.02	0.06	0.59	117.26	253.96	131.05
Electric Power, Gas and Water	Electric Power, Steam, and Hot Water Production & Supply	0.01	0.20	0.00	0.55	0.36	0.00	0.00	0.06	0.04	114.44	230.42	117.87
	Gas Production & Supply	0.00	0.03	0.00	0.10	0.01	0.85	0.02	0.00	0.54	2.28	3.14	4.62
	Tap Water Production & Supply		0.03	0.00	0.03	0.00				0.01	0.54	20.41	8.56
Industry Total	Industry Total	9.77	4.68	0.48	16.49	19.35	5.34	8.18	54.45	34.58	1767.52	1938.89	1711.39

(continued)

Figure 4.A.7. Subsectoral Shares of Industrial Sector End-Use Energy Consumption

Table 4A.7.1. Industrial Sector Energy End Use by Province and Energy Source, 2002

Physical Units, Mtce

EBYear	2002
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity	Total Energy
		Mt	Mt	bm3	TWh	Mtce
East	Shanghai	8.47	5.19	0.09	41.36	39.15
	Jiangsu	24.51	7.77	0.10	86.26	74.01
	Zhejiang	22.02	3.24		70.91	61.44
	Anhui	32.31	1.30		27.95	43.28
	Fujian	10.35	1.73		34.08	25.26
	Jiangxi	7.50	0.77		15.75	17.44
	Shandong	33.08	8.24	0.13	93.79	86.48
East Total		138.25	28.25	0.32	370.10	347.07
North	Beijing	6.22	3.58	0.10	16.48	25.50
	Tianjin	8.09	3.09	0.12	18.97	21.19
	Hebei	39.39	2.68	0.73	61.47	81.90
	Shanxi	25.17	0.72		47.61	65.06
	Inner Mongolia	18.59	0.57	0.00	25.30	37.02
North Total		97.45	10.64	0.96	169.84	230.67
NorthEast	Liaoning	19.10	5.72	1.88	60.73	72.79
	Jilin	12.00	2.31	0.29	20.56	32.01
	Heilongjiang	13.41	5.06	1.34	32.68	36.49
NorthEast Total		44.51	13.09	3.51	113.97	141.29
NorthWest	Shaanxi	10.67	2.46	0.72	23.46	23.62
	Gansu	6.81	1.06	0.18	22.12	19.38
	Qinghai	1.82	0.12	0.31	11.06	6.52
	Xinjiang	4.89	1.83	1.98	14.65	17.39
NorthWest Total		24.18	5.46	3.19	71.29	66.92
SouthCentral	Henan	28.83	2.29	1.12	60.96	59.58
	Hubei	30.50		0.09	39.14	45.41
	Hunan	20.41	1.63		31.26	37.93
	Guangdong	20.88	10.74		100.50	74.97
	Guangxi	12.19	0.71		22.88	23.06
SouthCentral Total		112.81	15.37	1.21	254.73	240.95
SouthWest	Chongqing	17.32	0.31	2.05	16.62	25.33
	Sichuan	18.03	0.46	4.89	39.22	42.31
	Guizhou	12.67	0.20	0.54	36.20	26.87
	Yunnan	7.35	0.53	0.51	27.40	24.92
SouthWest Total		55.38	1.49	7.99	119.45	119.42
(blank)	China	302.62	91.68	19.79	1,075.85	996.66
(blank) Total		302.62	91.68	19.79	1,075.85	996.66

N.B. The sum of provincial figures differ in cases from national totals reported by NBS.

Table 4A.7.2. Industrial Sector Energy End Use by Province and Energy Source, 2003

Physical Units, Mtce

EBYear	2003
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity	Total Energy
		Mt	Mt	bm3	TWh	Mtce
East	Shanghai	7.77	5.83	0.12	46.47	42.07
	Jiangsu	26.44	8.84	0.05	105.99	86.24
	Zhejiang	22.22	3.21		86.96	61.82
	Anhui	32.92	1.68		32.74	46.71
	Fujian	11.83	2.10		40.76	29.34
	Jiangxi	8.24	0.99		18.35	19.64
	Shandong	44.81	9.70	0.60	107.09	100.60
East Total		154.23	32.35	0.76	438.36	386.43
North	Beijing	5.90	3.27	0.16	17.02	26.14
	Tianjin	8.09	2.87	0.02	21.10	21.70
	Hebei	43.02	2.93	0.74	73.67	93.53
	Shanxi	27.84	0.79		5.61	53.67
	Inner Mongolia	22.10	0.63	0.00	33.22	38.24
North Total		106.95	10.49	0.92	150.61	233.28
NorthEast	Liaoning	24.47	5.56	1.88	6.34	55.10
	Jilin	13.67	3.52	0.29	21.03	26.35
	Heilongjiang	15.00	3.04	1.18	35.66	35.22
NorthEast Total		53.14	12.13	3.35	63.03	116.66
NorthWest	Shaanxi	10.72	0.77	0.41	26.39	22.31
	Gansu	6.85	0.83	0.59	26.63	20.93
	Ningxia	18.88	1.16	1.00	18.80	24.68
	Qinghai	1.87	0.27	0.34	13.35	7.86
	Xinjiang	5.29	2.28	3.02	16.50	20.55
NorthWest Total		43.61	5.30	5.36	101.67	96.32
SouthCentral	Henan	30.84	2.49	1.26	70.84	65.99
	Hubei	33.73	2.66	0.09	45.19	54.38
	Hunan	20.87	1.56		33.32	36.42
	Guangdong	29.92	13.82	0.13	116.61	93.10
	Guangxi	14.76	0.62		26.94	28.21
	Hainan	1.56	0.23	1.56	2.74	4.86
SouthCentral Total		131.67	21.39	3.04	295.64	282.96
SouthWest	Chongqing	10.67	0.31	2.17	17.86	20.45
	Sichuan	26.44	0.62	5.09	47.08	52.61
	Guizhou	17.48	0.25	0.54	40.63	32.28
	Yunnan	10.51	0.53	0.56	28.04	28.71
SouthWest Total		65.10	1.71	8.35	133.62	134.05
(blank)	China	359.81	99.59	23.90	1,263.90	1,156.48
(blank) Total		359.81	99.59	23.90	1,263.90	1,156.48

N.B. The sum of provincial figures differ in cases from national totals reported by NBS.

Table 4A.7.3. Industrial Sector Energy End Use by Province and Energy Source, 2004

Physical Units, Mtce

EBYear	2004
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity	Total Energy
		Mt	Mt	bm3	TWh	Mtce
East	Shanghai	8.35	6.41	0.37	51.07	45.05
	Jiangsu	38.21	10.22	0.24	130.10	111.66
	Zhejiang	31.25	4.31		102.23	76.78
	Anhui	30.71	1.72	0.02	3.85	33.23
	Fujian	12.22	2.62	0.01	41.37	31.39
	Jiangxi	10.35	1.04		25.24	25.59
	Shandong	53.24	9.46	0.85	133.42	123.36
East Total		184.31	35.79	1.47	487.27	447.07
North	Beijing	6.00	4.02	0.17	1.96	20.94
	Tianjin	8.38	2.50	0.39	23.80	24.85
	Hebei	45.60	2.73	0.87	86.28	111.22
	Shanxi	29.48	0.89		64.67	80.45
	Inner Mongolia	28.67	0.87	0.04	43.85	50.02
North Total		118.14	11.01	1.47	220.57	287.48
NorthEast	Liaoning	24.46	7.14	1.40	75.56	82.91
	Jilin	14.23	3.30	0.39	25.45	32.56
	Heilongjiang	15.42	5.54	1.22	38.13	39.70
NorthEast Total		54.11	15.98	3.00	139.14	155.17
NorthWest	Shaanxi	14.95	0.88	1.55	28.84	28.03
	Gansu	8.22	1.41	0.65	32.43	28.07
	Ningxia	7.83	0.23	1.15	0.50	14.06
	Qinghai	2.14	0.26	0.49	17.17	9.93
	Xinjiang	7.37	1.85	3.93	17.29	23.01
NorthWest Total		40.52	4.64	7.77	96.22	103.10
SouthCentral	Henan	44.75	2.74	1.42	89.65	84.96
	Hubei	38.45	2.75	0.09	50.96	60.40
	Hunan	25.12	1.79	0.01	46.34	46.22
	Guangdong	22.70	14.50	0.11	146.30	102.83
	Guangxi	16.18	0.99		30.31	32.16
	Hainan	2.73	0.22	1.76	3.43	6.23
SouthCentral Total		149.92	22.98	3.40	366.99	332.80
SouthWest	Chongqing	10.81	0.28	2.33	20.01	21.74
	Sichuan	28.84	0.75	5.10	53.28	58.92
	Guizhou	23.82	0.28	0.50	42.61	38.00
	Yunnan	7.73	0.42	0.52	21.95	20.70
SouthWest Total		71.19	1.73	8.45	137.85	139.35
(blank)	China	460.83	113.44	25.26	1,483.37	1,372.70
(blank) Total		460.83	113.44	25.26	1,483.37	1,372.70

N.B. The sum of provincial figures differ in cases from national totals reported by NBS.

Table 4A.7.4. Industrial Sector Energy End Use by Province and Energy Source, 2005

Physical Units, Mtce

EBYear	2005
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity	Total Energy
		Mt	Mt	bm3	TWh	Mtce
East	Shanghai	8.79	7.87	0.70	56.83	51.20
	Jiangsu	43.74	11.27	0.87	159.90	138.00
	Zhejiang	33.56	6.33	0.09	118.87	90.31
	Anhui	33.12	1.71	0.05	43.10	51.23
	Fujian	20.56	3.35	0.05	48.07	44.79
	Jiangxi	12.29	0.90	0.00	25.48	26.87
	Shandong	81.46	9.02	1.07	158.76	165.85
East Total		233.52	40.44	2.83	611.01	568.27
North	Beijing	6.38	4.49	0.25	20.99	27.47
	Tianjin	8.41	2.52	0.40	26.95	26.97
	Hebei	61.15	2.91	0.83	101.77	145.55
	Shanxi	31.12	0.86		73.35	86.59
	Inner Mongolia	28.88	0.79	0.57	56.67	57.19
North Total		135.94	11.57	2.05	279.73	343.77
NorthEast	Liaoning	27.14	7.92	1.48	78.33	91.70
	Jilin	17.10	4.43	0.47	26.20	38.75
	Heilongjiang	17.12	5.33	1.48	37.45	42.20
NorthEast Total		61.36	17.68	3.43	141.98	172.66
NorthWest	Shaanxi	20.11	0.60	0.96	33.18	32.84
	Gansu	9.45	1.83	0.73	34.29	31.76
	Ningxia	9.60	0.39	0.61	26.01	19.66
	Qinghai	2.10	0.28	0.37	18.78	10.41
	Xinjiang	8.06	5.34	2.80	19.40	31.44
NorthWest Total		49.32	8.44	5.48	131.66	126.12
SouthCentral	Henan	61.77	2.96	1.62	99.80	104.99
	Hubei	38.29	4.13	0.41	56.25	67.88
	Hunan	45.32	2.23	0.03	38.01	60.85
	Guangdong	26.65	17.89	0.14	171.79	120.89
	Guangxi	17.74	1.18		34.19	35.35
	Hainan	0.96	0.23	1.43	4.76	4.99
SouthCentral Total		190.72	28.61	3.63	404.81	394.94
SouthWest	Chongqing	13.73	0.38	2.60	20.87	29.06
	Sichuan	23.60	1.04	5.61	58.25	58.78
	Guizhou	26.02	0.32	0.50	39.17	38.89
	Yunnan	19.28	0.34	0.59	37.44	43.81
SouthWest Total		82.63	2.09	9.30	155.72	170.54
(blank)	China	480.41	112.45	29.18	1,677.52	1,550.20
(blank) Total		480.41	112.45	29.18	1,677.52	1,550.20

N.B. The sum of provincial figures differ in cases from national totals reported by NBS.

Table 4A.7.5. Industrial Sector Energy End Use by Province and Energy Source, 2006

Physical Units, Mtce

EBYear	2006
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Sum of EBAmount		EBMaterial	EBUom			
scoProvRegion	EBScopeName	Total Coal	Total Petroleum	Natural Gas	Electricity	Total Energy
		Mt	Mt	bm3	TWh	Mtce
East	Shanghai	8.88	10.76	0.94	60.46	57.17
	Jiangsu	45.19	11.25	1.27	190.12	156.50
	Zhejiang	33.68	6.43	0.10	139.95	101.46
	Anhui	36.53	1.82	0.11	48.99	57.90
	Fujian	23.06	3.52	0.06	54.95	49.72
	Jiangxi	13.67	1.21	0.02	27.93	31.47
	Shandong	90.23	8.46	1.47	184.65	185.11
East Total		251.25	43.46	3.97	707.05	639.33
North	Beijing	7.00	4.58	0.36	22.75	28.05
	Tianjin	8.24	2.41	0.49	30.52	30.38
	Hebei	61.91	3.90	0.16	120.95	162.14
	Shanxi	33.24	0.97	0.36	86.10	97.78
	Inner Mongolia	27.81	0.82	1.20	77.08	67.84
North Total		138.20	12.69	2.56	337.40	386.18
NorthEast	Liaoning	29.47	9.57	1.31	86.54	102.73
	Jilin	23.17	5.19	0.47	28.73	45.17
	Heilongjiang	19.31	6.34	1.80	39.88	48.40
NorthEast Total		71.94	21.11	3.58	155.15	196.30
NorthWest	Shaanxi	18.60	0.51	0.95	35.19	33.41
	Gansu	9.77	2.05	0.93	37.29	34.83
	Ningxia	8.82	0.42	0.68	32.55	22.80
	Qinghai	3.17	0.38	0.51	22.39	13.55
	Xinjiang	12.68	4.42	4.14	22.03	36.04
NorthWest Total		53.03	7.78	7.20	149.44	140.63
SouthCentral	Henan	73.59	3.00	2.45	110.60	122.76
	Hubei	41.30	4.40	0.44	61.79	75.07
	Hunan	47.73	2.50	0.33	42.03	66.97
	Guangdong	32.08	22.26	0.31	188.07	139.08
	Guangxi	20.69	0.73	0.07	39.12	40.63
	Hainan	0.72	0.22	1.58	4.76	5.53
SouthCentral Total		216.11	33.11	5.18	446.36	450.03
SouthWest	Chongqing	14.51	0.46	2.75	23.64	31.01
	Sichuan	25.11	1.30	5.65	71.17	66.87
	Guizhou	28.40	0.35	0.49	45.39	44.82
	Yunnan	19.97	0.38	0.53	44.16	47.00
SouthWest Total		87.99	2.49	9.41	184.36	189.70
(blank)	China	480.07	118.75	34.58	1,938.89	1,715.57
(blank) Total		480.07	118.75	34.58	1,938.89	1,715.57

N.B. The sum of provincial figures differ in cases from national totals reported by NBS.

Table 4A.8.1. Energy Used as Feedstock

Physical units

Sum of EBYear	EBMaterial	EBUom					
	Total Coal	Coke	Crude Oil	Fuel Oil	Natural Gas	Coke Other Products	Petroleum Other Products
	Mt	Mt	Mt	Mt	bm3	Mt	Mt
1990			2.19				
1991	29.48	5.25	1.29	2.68	5.44	2.55	16.88
1992	32.23	5.94	0.92	2.68	5.00	2.98	17.71
1993	28.90	4.91	1.23	2.65	3.84	2.81	16.99
1994	27.19	5.96	0.76	2.35	5.09	3.16	22.73
1995	17.77	7.60	0.28	1.03	3.76	2.94	24.98
1996	16.09	9.66	0.27	0.96	4.81	3.36	30.60
1997	12.92	8.83	0.48	1.06	3.83	2.91	37.13
1998	12.64	6.82	0.67	0.91	4.89	1.76	38.52
1999	23.18	6.54	0.66	1.08	4.80	0.47	16.68
2000	21.78	6.25	0.81	1.11	4.92	0.55	17.15
2001	21.06	7.75	0.84	1.07	5.85	0.59	16.85
2002	19.15	8.01	0.88	1.05	6.00	0.64	19.63
2003	22.67	8.62	0.11	1.14	6.68	0.77	21.85
2004	29.16	8.23	1.12	1.15	7.63	1.00	27.97
2005	30.38	9.25	1.16	1.04	8.77	0.99	27.35
2006	30.35	10.84	1.30	1.16	8.65	1.24	29.32

Table 4A.8.2. Energy Used as Feedstock (Mtce)

Mtce

Sum of	EBMaterial							
EBYear	Total Coal	Coke	Crude Oil	Fuel Oil	Natural Gas	Coke Other Products	Petroleum Other Products	Grand Total
1990			3.12					3.12
1991	21.05	5.10	1.84	3.82	7.24	2.82	22.12	63.99
1992	23.01	5.77	1.32	3.83	6.65	3.29	23.20	67.07
1993	20.63	4.77	1.75	3.79	5.11	3.11	22.26	61.42
1994	19.41	5.79	1.09	3.36	6.76	3.50	29.78	69.70
1995	12.69	7.38	0.39	1.47	5.00	3.26	32.73	62.92
1996	11.49	9.38	0.39	1.37	6.39	3.72	40.08	72.82
1997	9.23	8.58	0.69	1.51	5.09	3.23	48.64	76.96
1998	9.02	6.62	0.96	1.31	6.50	1.95	50.46	76.82
1999	16.55	6.35	0.94	1.55	6.38	0.53	21.85	54.15
2000	15.55	6.07	1.16	1.58	6.54	0.61	22.47	53.97
2001	15.04	7.53	1.20	1.53	7.78	0.65	22.08	55.80
2002	13.68	7.78	1.25	1.50	7.98	0.70	25.72	58.61
2003	16.19	8.37	0.15	1.63	8.88	0.86	28.62	64.70
2004	20.82	7.99	1.61	1.64	10.15	1.11	36.63	79.96
2005	21.69	8.98	1.65	1.49	11.66	1.10	35.83	82.41
2006	21.67	10.53	1.86	1.66	11.50	1.38	38.41	87.00

N. B. 1990 total is partial.

Table 4A.9.1. Thermal Electric Utility Fuel Use

Physical units

Sum of EBYear	EBUom									
	Total Coal	Crude Oil	Fuel Oil	Gasoline	Diesel Oil	Liquid Petroleum Gas	Refinery Gas	Natural Gas	Coke Other Products	Coke Oven Gas
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	bm3	Mt	bm3
1980	126.48	5.74	14.19		0.72			0.24		0.89
1981	126.99	5.41	13.50		1.21			0.24		0.86
1982	134.27	4.80	13.21		0.73			0.21		0.91
1983	143.11	3.96	13.56		0.55			0.20		0.98
1984	159.35	3.35	13.55		0.70			0.20		1.02
1985	164.41	2.80	10.42		1.04	0.00		0.27		0.93
1986	180.12	2.46	10.46		0.59	0.00	0.03	0.47	0.00	1.13
1987	202.89	2.59	10.19	0.00	0.92	0.00	0.04	0.76	0.00	0.89
1988	228.34	2.34	10.73	0.00	1.96	0.01	0.09	0.57	0.06	0.67
1989	251.51	1.63	10.47	0.00	2.24	0.02	0.09	1.03	0.03	0.71
1990	272.04	1.25	9.77	0.00	1.25	0.01	0.07	0.73	0.00	0.67
1991	301.19	0.97	9.47	0.00	2.14	0.01	0.12	0.64	0.01	0.82
1992	334.59	0.95	8.53	0.00	3.40	0.00	0.11	0.65	0.00	1.61
1993	368.32	0.95	12.03	0.00	2.91	0.01	0.11	0.82		0.51
1994	400.53	0.65	8.93	0.00	2.01	0.00	0.19	0.83		1.15
1995	444.40	0.62	10.72	0.00	2.05	0.00	0.20	0.79		0.84
1996	488.09	0.68	8.89	0.01	2.53	0.04	0.24	0.75		1.07
1997	489.79	0.64	8.39	0.01	7.39	0.01	0.18	2.13		1.26
1998	494.89	0.74	9.94	0.01	2.04	0.03	0.29	1.61		1.24
1999	524.58	0.80	9.06	0.01	2.15	0.02	0.24	1.27		0.93
2000	558.11	0.85	8.14	0.01	2.28	0.02	0.25	1.52		1.07
2001	597.98	0.82	8.39	0.01	2.40	0.01	0.23	1.30	0.01	1.06
2002	686.00	0.78	9.13	0.01	2.26	0.02	0.20	1.11		1.37
2003	819.76	0.94	10.57	0.00	2.71	0.02	0.17	1.32		1.14
2004	919.62	0.18	14.29	0.00	3.35	0.02	0.30	1.90		2.51
2005	1,032.63	0.21	11.06	0.01	3.67	0.00	0.37	3.15		3.58
2006	1,187.64	0.23	9.28	0.00	3.13	0.00	0.35	3.76		5.39

Table 4A.9.2. Thermal Electric Utility Fuel Use (Mtce)

Mtce

Sum of EBMtce		EBMaterial												Grand Total
EYYear		Crude		Gasolin	Diesel	Liquid		Natural	Coke	Coke	Petroleum	Total		
		Total Coal	Oil			Petroleum	Refinery						Gas	
			Fuel Oil	e	Oil	Gas	Gas	Gas	Products	Gas	Products	Petroleum		
1980		90.31	8.20	20.28	1.05			0.32		0.53		29.54	120.69	
1981		90.67	7.73	19.30	1.76			0.32		0.51		28.77	120.27	
1982		95.87	6.86	18.87	1.06			0.28		0.54		26.79	123.48	
1983		102.18	5.65	19.37	0.80			0.27		0.58		25.82	128.85	
1984		113.78	4.79	19.36	1.02			0.27		0.60		25.16	139.81	
1985		117.39	3.99	14.89	1.51	0.00		0.36		0.55		20.38	138.68	
1986		128.61	3.51	14.95	0.86	0.00	0.05	0.63	0.00	0.67	0.07	19.43	149.33	
1987		144.86	3.70	14.56	0.00	1.34	0.01	0.07	1.01	0.00	0.53	0.00	19.66	166.06
1988		163.03	3.35	15.33	0.00	2.85	0.01	0.15	0.76	0.07	0.40	21.63	185.89	
1989		179.58	2.33	14.96	0.00	3.26	0.04	0.14	1.37	0.03	0.42	0.00	20.68	202.08
1990		194.24	1.78	13.97	0.00	1.81	0.02	0.10	0.97	0.00	0.40	0.00	17.65	213.26
1991		215.05	1.38	13.53	0.00	3.12	0.01	0.18	0.85	0.01	0.49	0.00	18.17	234.56
1992		238.90	1.36	12.19	0.01	4.95	0.01	0.16	0.86	0.00	0.95		18.59	259.31
1993		262.98	1.35	17.20	0.00	4.24	0.02	0.17	1.09		0.30		22.90	287.27
1994		285.98	0.93	12.76	0.00	2.93	0.01	0.30	1.11		0.68		16.85	304.62
1995		317.30	0.88	15.31	0.00	2.98	0.00	0.31	1.05		0.50		19.43	338.28
1996		348.49	0.97	12.70	0.01	3.69	0.07	0.37	0.99		0.63		17.71	367.83
1997		349.71	0.92	11.99	0.01	10.77	0.02	0.28	2.83		0.75		23.77	377.06
1998		353.35	1.06	14.20	0.01	2.97	0.05	0.46	2.13		0.74		18.66	374.88
1999		374.55	1.15	12.95	0.01	3.14	0.03	0.37	1.69		0.55		17.57	394.36
2000		398.49	1.21	11.64	0.01	3.32	0.03	0.39	2.02		0.63	0.31	16.85	418.00
2001		426.96	1.17	11.98	0.01	3.50	0.02	0.36	1.73	0.01	0.63	0.37	17.35	446.68
2002		489.80	1.12	13.04	0.01	3.29	0.03	0.32	1.47		0.81	0.47	18.24	510.33
2003		585.31	1.34	15.10	0.01	3.95	0.03	0.27	1.76		0.67	0.66	21.33	609.08
2004		656.61	0.26	20.42	0.00	4.88	0.04	0.48	2.53		1.49	0.64	26.66	687.28
2005		737.30	0.30	15.81	0.01	5.34	0.00	0.57	4.19		2.12	0.92	22.91	766.53
2006		847.97	0.33	13.26	0.00	4.56	0.00	0.54	5.00		3.20	0.59	19.21	875.38

Figure 4A.8. Fossil Fuel Use in Electricity Generation, 1980-2006

Table 4A.10.1. Transportation Energy Use

Physical units

Sum of	EBMaterial	EBUom								
	Total Coal	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Crude Oil	Electricity	Natural Gas	Liquid Petroleum Gas	Total Energy
EBYear	Mt	Mt	Mt	Mt	Mt	Mt	TWh	bm3	Mt	Mtce
1980	19.34	4.05	0.31	3.16	1.09	0.27	2.65	0.01		27.69
1981	20.86	3.61	0.36	3.03	1.12	0.29	2.91	0.01		28.15
1982	21.73	3.85	0.39	3.31	1.32	0.27	2.99	0.01		29.87
1983	21.92	4.21	0.41	3.66	1.36	0.19	3.58	0.01		31.21
1984	22.80	4.40	0.52	3.91	1.40	0.32	4.14	0.01		33.11
1985	23.07	4.77	0.56	4.54	1.44	0.20	6.34	0.01		35.59
1986	22.95	5.09	0.53	5.81	1.73	0.32	6.69	0.03	0.00	38.48
1987	22.42	5.33	0.68	6.50	1.76	0.23	7.67	0.03		39.93
1988	22.59	5.65	0.69	6.90	1.84	0.22	8.95	0.06	0.00	41.76
1989	22.84	5.92	0.72	7.21	2.00	0.18	9.87	0.03	0.01	43.33
1990	21.61	6.20	0.93	7.09	2.08	0.12	10.59	0.05		43.33
1991	20.25	7.04	1.32	7.60	2.26	0.12	11.72	0.05		45.54
1992	18.76	8.08	1.65	8.28	2.28	0.12	13.61	0.04	0.00	48.20
1993	17.51	8.37	1.76	10.02	2.15	0.21	14.62	0.08	0.01	50.84
1994	15.15	9.00	2.00	9.98	2.28	0.24	16.40	0.08	0.01	51.30
1995	13.15	9.82	2.50	12.47	2.27	0.22	18.23	0.07	0.00	56.01
1996	11.76	9.91	2.99	12.61	2.24	0.24	19.79	0.12	0.02	56.75
1997	14.31	11.83	4.20	13.80	5.82	0.17	25.59	0.02	0.02	72.10
1998	13.91	12.17	3.90	19.02	5.66	0.19	25.56	0.03	0.01	79.13
1999	12.86	12.66	5.06	22.22	8.40	0.19	25.48	0.08	0.01	89.30
2000	11.32	13.88	5.36	25.44	8.50	0.20	28.12	0.10	0.15	96.44
2001	10.41	14.19	5.61	26.71	8.55	0.19	30.93	0.12	0.16	99.67
2002	10.55	15.04	6.17	29.65	8.72	0.18	33.80	0.16	0.27	107.61
2003	10.67	18.62	6.22	34.85	9.40	0.14	39.69	0.18	0.35	123.79
2004	8.32	23.08	8.20	41.82	11.50		44.97	0.50	0.35	146.71
2005	8.15	24.70	8.82	50.19	11.61		43.03	0.58	0.47	161.45
2006	7.25	27.22	10.01	57.47	12.81		46.74	0.80	0.53	180.19

N.B. Unadjusted figures for transport sector(understates actual consumption), excluded small volumes of coke, coal gas and delivered heat.

Table 4A.10.2. Transportation Energy Use (Mtce)

Mtce

Sum of E	BMaterial									
EBYear	Total Coal	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Crude Oil	Electricity	Natural Gas	Liquid Petroleum Gas	Total Energy
1980	13.81	5.96	0.46	4.61	1.56	0.39	1.07	0.01		27.69
1981	14.89	5.31	0.52	4.42	1.60	0.41	1.18	0.01		28.15
1982	15.52	5.67	0.58	4.82	1.89	0.39	1.21	0.01		29.87
1983	15.65	6.19	0.60	5.33	1.94	0.26	1.45	0.01		31.21
1984	16.28	6.48	0.76	5.69	2.01	0.46	1.67	0.01		33.11
1985	16.47	7.02	0.83	6.62	2.06	0.29	2.56	0.01		35.59
1986	16.39	7.48	0.78	8.46	2.47	0.46	2.70	0.04	0.00	38.48
1987	16.00	7.83	1.00	9.47	2.52	0.33	3.10	0.04		39.93
1988	16.13	8.32	1.01	10.05	2.63	0.31	3.62	0.08	0.00	41.76
1989	16.31	8.71	1.06	10.50	2.86	0.26	3.99	0.04	0.02	43.33
1990	15.43	9.12	1.37	10.34	2.98	0.18	4.28	0.07		43.33
1991	14.46	10.35	1.94	11.07	3.24	0.17	4.73	0.07		45.54
1992	13.39	11.88	2.43	12.06	3.26	0.17	5.50	0.05	0.00	48.20
1993	12.50	12.32	2.59	14.60	3.07	0.30	5.91	0.10	0.01	50.84
1994	10.82	13.24	2.94	14.54	3.25	0.34	6.63	0.10	0.01	51.30
1995	9.39	14.45	3.68	18.16	3.25	0.31	7.36	0.09	0.01	56.01
1996	8.40	14.58	4.40	18.37	3.21	0.35	7.99	0.16	0.03	56.75
1997	10.22	17.40	6.18	20.10	8.32	0.24	10.34	0.03	0.03	72.10
1998	9.93	17.90	5.74	27.71	8.08	0.28	10.33	0.03	0.01	79.13
1999	9.18	18.62	7.44	32.37	12.00	0.28	10.29	0.11	0.01	89.30
2000	8.08	20.41	7.88	37.06	12.15	0.28	11.36	0.13	0.25	96.44
2001	7.43	20.88	8.25	38.92	12.22	0.27	12.50	0.16	0.27	99.67
2002	7.53	22.12	9.07	43.20	12.46	0.25	13.66	0.21	0.46	107.61
2003	7.62	27.38	9.14	50.78	13.44	0.20	16.04	0.23	0.60	123.79
2004	5.94	33.96	12.06	60.94	16.44		18.17	0.67	0.60	146.71
2005	5.82	36.33	12.98	73.13	16.59		17.39	0.77	0.81	161.45
2006	5.18	40.05	14.72	83.74	18.30		18.88	1.07	0.91	180.19

N.B. Unadjusted figures for transport sector(understates actual consumption), excluded small volumes of coke, coal gas and delivered heat.

Table 4A.10.3. Transportation Energy Use (Shares)

Shares

Sum of E	Material								
EBYear	Total Coal	Gasoline	Kerosene	Diesel Oil	Crude Oil	Fuel Oil	Electricity	Natural Gas	Liquid Petroleum Gas
1980	49.6%	21.4%	1.7%	16.5%	1.4%	5.6%	3.8%	0.0%	0.0%
1981	52.5%	18.7%	1.8%	15.6%	1.5%	5.6%	4.1%	0.0%	0.0%
1982	51.6%	18.8%	1.9%	16.0%	1.3%	6.3%	4.0%	0.0%	0.0%
1983	49.8%	19.7%	1.9%	16.9%	0.8%	6.2%	4.6%	0.0%	0.0%
1984	48.8%	19.4%	2.3%	17.1%	1.4%	6.0%	5.0%	0.0%	0.0%
1985	45.9%	19.6%	2.3%	18.5%	0.8%	5.7%	7.1%	0.0%	0.0%
1986	42.2%	19.3%	2.0%	21.8%	1.2%	6.4%	7.0%	0.1%	0.0%
1987	39.7%	19.4%	2.5%	23.5%	0.8%	6.2%	7.7%	0.1%	0.0%
1988	38.3%	19.7%	2.4%	23.9%	0.7%	6.2%	8.6%	0.2%	0.0%
1989	37.3%	19.9%	2.4%	24.0%	0.6%	6.5%	9.1%	0.1%	0.1%
1990	35.3%	20.8%	3.1%	23.6%	0.4%	6.8%	9.8%	0.2%	0.0%
1991	31.4%	22.5%	4.2%	24.0%	0.4%	7.0%	10.3%	0.1%	0.0%
1992	27.5%	24.4%	5.0%	24.7%	0.3%	6.7%	11.3%	0.1%	0.0%
1993	24.3%	24.0%	5.0%	28.4%	0.6%	6.0%	11.5%	0.2%	0.0%
1994	20.8%	25.5%	5.7%	28.0%	0.7%	6.3%	12.8%	0.2%	0.0%
1995	16.6%	25.5%	6.5%	32.0%	0.6%	5.7%	13.0%	0.2%	0.0%
1996	14.6%	25.4%	7.6%	32.0%	0.6%	5.6%	13.9%	0.3%	0.0%
1997	14.0%	23.9%	8.5%	27.6%	0.3%	11.4%	14.2%	0.0%	0.0%
1998	12.4%	22.4%	7.2%	34.6%	0.3%	10.1%	12.9%	0.0%	0.0%
1999	10.2%	20.6%	8.2%	35.8%	0.3%	13.3%	11.4%	0.1%	0.0%
2000	8.3%	20.9%	8.1%	38.0%	0.3%	12.4%	11.6%	0.1%	0.3%
2001	7.4%	20.7%	8.2%	38.6%	0.3%	12.1%	12.4%	0.2%	0.3%
2002	6.9%	20.3%	8.3%	39.6%	0.2%	11.4%	12.5%	0.2%	0.4%
2003	6.1%	21.8%	7.3%	40.5%	0.2%	10.7%	12.8%	0.2%	0.5%
2004	4.0%	22.8%	8.1%	41.0%	0.0%	11.1%	12.2%	0.4%	0.4%
2005	3.6%	22.2%	7.9%	44.6%	0.0%	10.1%	10.6%	0.5%	0.5%
2006	2.8%	21.9%	8.0%	45.8%	0.0%	10.0%	10.3%	0.6%	0.5%

N.B. Unadjusted figures for transport sector (understates actual consumption), excluded small volumes of coke, coal gas and delivered heat.

Figure 4A.9. Transportation Sector Energy Consumption by Fuel, Mtce, 1980-2006

Figure 4A.10. Transportation Sector Energy Consumption by Fuel, Shares, 1980-2006

Table 4A.11.1. Agricultural Energy Consumption

Physical units, Mtce

Sum of EBYear	EBMaterial	EBUom			
	Total Coal	Electricity	Diesel Oil	Gasoline	Total Energy
	Mt	TWh	Mt	Mt	Mtce
1980	15.50	27.00	7.49	0.53	33.73
1981	15.69	28.16	7.05	0.58	33.77
1982	17.14	28.64	6.54	0.61	34.28
1983	18.35	28.64	6.65	0.72	35.36
1984	20.18	28.84	7.05	0.89	37.72
1985	22.09	31.74	6.29	1.22	39.64
1986	22.97	32.19	6.71	1.42	41.58
1987	22.87	35.96	7.30	1.46	43.96
1988	23.78	37.89	7.67	1.54	46.14
1989	21.81	41.05	8.26	1.34	46.53
1990	20.95	42.68	8.82	1.46	47.57
1991	21.25	47.98	8.93	1.68	50.16
1992	17.68	52.24	8.86	1.79	49.58
1993	16.02	48.10	9.19	1.39	47.43
1994	17.83	53.06	9.34	1.51	50.88
1995	18.57	58.24	10.01	1.80	55.25
1996	19.17	61.83	10.28	1.80	57.37
1997	19.27	63.98	10.76	1.76	58.99
1998	19.23	62.35	11.20	1.73	58.92
1999	17.36	66.04	12.42	1.78	60.84
2000	16.48	67.30	13.10	1.85	61.78
2001	16.00	76.24	13.76	1.91	66.02
2002	16.23	77.62	14.84	1.88	68.28
2003	16.83	77.32	14.84	1.95	68.69
2004	22.51	80.89	17.74	2.20	78.35
2005	23.15	87.63	18.38	2.28	82.22
2006	23.10	94.70	19.65	2.40	87.21

N.B. Excludes small volumes of coke, natural gas, delivered heat and biomass.

Table 4A.11.2. Agricultural Energy Consumption (Mtce)

Mtce

Sum of E	EBMaterial				
EBYear	Total Coal	Electricity	Diesel Oil	Gasoline	Total Energy
1980	11.07	10.91	10.91	0.78	33.73
1981	11.20	11.38	10.27	0.85	33.77
1982	12.24	11.57	9.53	0.89	34.28
1983	13.10	11.57	9.69	1.06	35.36
1984	14.41	11.65	10.27	1.31	37.72
1985	15.77	12.82	9.17	1.80	39.64
1986	16.40	13.00	9.78	2.09	41.58
1987	16.33	14.53	10.63	2.15	43.96
1988	16.98	15.31	11.18	2.26	46.14
1989	15.57	16.58	12.03	1.97	46.53
1990	14.96	17.24	12.84	2.15	47.57
1991	15.17	19.38	13.02	2.48	50.16
1992	12.63	21.10	12.90	2.63	49.58
1993	11.44	19.43	13.39	2.05	47.43
1994	12.73	21.44	13.61	2.23	50.88
1995	13.26	23.53	14.59	2.64	55.25
1996	13.69	24.98	14.98	2.65	57.37
1997	13.76	25.85	15.67	2.59	58.99
1998	13.73	25.19	16.32	2.54	58.92
1999	12.39	26.68	18.09	2.62	60.84
2000	11.76	27.19	19.09	2.71	61.78
2001	11.42	30.80	20.04	2.80	66.02
2002	11.59	31.36	21.63	2.76	68.28
2003	12.02	31.24	21.63	2.87	68.69
2004	16.07	32.68	25.85	3.24	78.35
2005	16.53	35.40	26.77	3.35	82.22
2006	16.49	38.26	28.63	3.53	87.21

N.B. Excludes small volumes of coke, natural gas, delivered heat and biomass.

Table 4A.11.3. Agricultural Energy Consumption (Shares)

Shares

Sum of E	EBMaterial			
EBYear	Total Coal	Electricity	Diesel Oil	Gasoline
1980	32.9%	32.4%	32.4%	2.3%
1981	33.3%	33.8%	30.5%	2.5%
1982	35.8%	33.8%	27.8%	2.6%
1983	37.0%	32.7%	27.4%	3.0%
1984	38.3%	31.0%	27.3%	3.5%
1985	39.9%	32.4%	23.2%	4.5%
1986	39.7%	31.5%	23.7%	5.1%
1987	37.4%	33.3%	24.4%	4.9%
1988	37.1%	33.5%	24.4%	4.9%
1989	33.7%	35.9%	26.1%	4.3%
1990	31.7%	36.5%	27.2%	4.5%
1991	30.3%	38.7%	26.0%	4.9%
1992	25.6%	42.8%	26.2%	5.3%
1993	24.7%	42.0%	28.9%	4.4%
1994	25.5%	42.9%	27.2%	4.5%
1995	24.5%	43.6%	27.0%	4.9%
1996	24.3%	44.4%	26.6%	4.7%
1997	23.8%	44.7%	27.1%	4.5%
1998	23.8%	43.6%	28.2%	4.4%
1999	20.7%	44.6%	30.3%	4.4%
2000	19.4%	44.7%	31.4%	4.5%
2001	17.6%	47.3%	30.8%	4.3%
2002	17.2%	46.6%	32.1%	4.1%
2003	17.7%	46.1%	31.9%	4.2%
2004	20.6%	42.0%	33.2%	4.2%
2005	20.1%	43.1%	32.6%	4.1%
2006	19.0%	44.0%	32.9%	4.1%

N.B. Excludes small volumes of coke, natural gas, delivered heat and biomass.

Figure 4A.11. Agricultural Energy Consumption by Fuel, Mtce, 1980-2006

Figure 4A.12. Agricultural Energy Consumption by Fuel, Shares, 1980-2006

Table 4A.12.1. Residential Energy Consumption

Physical units

Sum of E	EBUom							
	EBMaterial	Electricity	Heat	Kerosene	Liquid Petroleum Gas	Natural Gas	Coke Oven Gas	Coal Gas not Coke Source
EBYear	Mt	TWh	PJ	Mt	Mt	bm3	bm3	bm3
1980	115.74	10.52	45.72	0.99	0.43	0.20	1.37	
1981	120.89	11.80	47.41	1.16	0.46	0.22	1.43	
1982	124.57	12.05	48.33	1.00	0.49	0.20	1.48	
1983	130.64	13.73	49.43	1.25	0.61	0.14	1.49	
1984	139.83	15.91	52.43	1.48	0.61	0.45	1.63	
1985	156.24	22.25	56.51	1.22	0.91	0.43	0.48	0.85
1986	158.22	24.79	65.96	1.34	1.14	0.65	0.68	0.71
1987	164.86	28.65	78.16	1.28	1.24	0.77	0.70	1.00
1988	175.25	34.33	77.29	1.20	1.32	1.53	1.30	0.42
1989	170.43	39.52	83.67	1.28	1.54	1.68	1.88	0.84
1990	167.00	48.08	89.72	1.05	1.59	1.86	1.95	0.92
1991	164.52	54.36	97.61	0.94	2.02	1.81	2.40	1.24
1992	147.81	64.00	114.10	0.87	2.39	2.15	3.58	1.58
1993	145.15	73.71	113.57	0.70	2.99	1.73	3.55	1.87
1994	130.47	86.70	142.62	0.69	3.85	2.00	3.53	4.04
1995	135.30	100.56	126.37	0.64	5.34	1.94	2.22	3.45
1996	143.99	113.30	166.69	0.65	7.03	1.97	2.42	2.35
1997	122.38	125.32	164.32	0.63	7.42	2.12	4.01	5.98
1998	88.84	132.45	187.11	0.63	7.69	2.41	3.67	7.41
1999	84.08	148.08	201.27	0.71	8.78	2.57	3.51	8.14
2000	79.07	167.20	232.34	0.72	9.88	3.23	3.70	8.95
2001	78.30	183.92	233.69	0.75	10.06	4.41	3.54	8.36
2002	76.03	200.14	266.13	0.61	11.69	5.12	3.62	8.96
2003	81.75	223.80	336.66	0.56	12.93	5.69	3.91	9.20
2004	81.73	246.45	413.95	0.27	13.50	6.72	4.12	9.69
2005	87.39	282.48	517.44	0.25	13.29	7.94	4.42	10.06
2006	83.86	325.16	569.48	0.23	14.56	10.26	4.58	11.06

N.B. Excludes gasoline and diesel.

Table 4A.12.2. Residential Energy Consumption (Mtce)

Mtce

Sum of E	Material								
EBYear	Total Coal	Electricity	Heat	Kerosene	Liquid Petroleum Gas	Natural Gas	Coke Oven Gas	Coal Gas not Coke Source	Grand Total
1980	82.64	4.25	1.55	1.45	0.74	0.27	0.81		91.71
1981	86.32	4.77	1.61	1.70	0.78	0.29	0.85		96.32
1982	88.94	4.87	1.64	1.48	0.84	0.27	0.88		98.91
1983	93.28	5.55	1.68	1.83	1.04	0.19	0.88		104.44
1984	99.84	6.43	1.78	2.18	1.04	0.60	0.97		112.84
1985	111.56	8.99	1.92	1.79	1.56	0.57	0.28	0.24	126.91
1986	112.97	10.02	2.24	1.98	1.96	0.86	0.40	0.20	130.63
1987	117.71	11.57	2.66	1.88	2.13	1.02	0.42	0.29	137.68
1988	125.13	13.87	2.63	1.77	2.25	2.03	0.77	0.12	148.58
1989	121.69	15.97	2.84	1.89	2.63	2.23	1.11	0.24	148.61
1990	119.24	19.42	3.05	1.54	2.72	2.47	1.16	0.26	149.86
1991	117.47	21.96	3.32	1.38	3.47	2.41	1.42	0.36	151.79
1992	105.53	25.86	3.88	1.28	4.10	2.86	2.12	0.46	146.09
1993	103.64	29.78	3.86	1.03	5.12	2.30	2.10	0.54	148.37
1994	93.16	35.03	4.85	1.01	6.60	2.65	2.09	1.16	146.55
1995	96.61	40.63	4.30	0.95	9.15	2.58	1.32	0.99	156.51
1996	102.81	45.77	5.67	0.95	12.06	2.62	1.43	0.68	171.99
1997	87.38	50.63	5.59	0.92	12.72	2.82	2.38	1.72	164.16
1998	63.43	53.51	6.36	0.93	13.18	3.21	2.18	2.13	144.94
1999	60.04	59.82	6.84	1.04	15.06	3.42	2.08	2.35	150.65
2000	56.46	67.55	7.90	1.06	16.94	4.30	2.19	2.58	158.97
2001	55.91	74.30	7.95	1.10	17.24	5.87	2.10	2.41	166.88
2002	54.28	80.86	9.05	0.89	20.04	6.80	2.15	2.58	176.65
2003	58.37	90.42	11.45	0.83	22.16	7.57	2.32	2.65	195.75
2004	58.36	99.57	14.07	0.40	23.15	8.94	2.44	2.79	209.72
2005	62.40	114.12	17.59	0.37	22.77	10.56	2.62	2.90	233.34
2006	59.88	131.36	19.36	0.33	24.96	13.65	2.72	3.18	255.45

N.B. Excludes gasoline and diesel.

Table 4A.12.3. Residential Energy Consumption (Shares)

Shares

Sum of E	BMaterial								
EBYear	Total Coal	Electricity	Heat	Kerosene	Liquid Petroleum Gas	Natural Gas	Coal Gas not Coke	Coke Oven Gas	Grand Total
1980	90.1%	4.6%	1.7%	1.6%	0.8%	0.3%	0.0%	0.9%	100%
1981	89.6%	4.9%	1.7%	1.8%	0.8%	0.3%	0.0%	0.9%	100%
1982	89.9%	4.9%	1.7%	1.5%	0.8%	0.3%	0.0%	0.9%	100%
1983	89.3%	5.3%	1.6%	1.8%	1.0%	0.2%	0.0%	0.8%	100%
1984	88.5%	5.7%	1.6%	1.9%	0.9%	0.5%	0.0%	0.9%	100%
1985	87.9%	7.1%	1.5%	1.4%	1.2%	0.5%	0.2%	0.2%	100%
1986	86.5%	7.7%	1.7%	1.5%	1.5%	0.7%	0.2%	0.3%	100%
1987	85.5%	8.4%	1.9%	1.4%	1.5%	0.7%	0.2%	0.3%	100%
1988	84.2%	9.3%	1.8%	1.2%	1.5%	1.4%	0.1%	0.5%	100%
1989	81.9%	10.7%	1.9%	1.3%	1.8%	1.5%	0.2%	0.8%	100%
1990	79.6%	13.0%	2.0%	1.0%	1.8%	1.7%	0.2%	0.8%	100%
1991	77.4%	14.5%	2.2%	0.9%	2.3%	1.6%	0.2%	0.9%	100%
1992	72.2%	17.7%	2.7%	0.9%	2.8%	2.0%	0.3%	1.5%	100%
1993	69.9%	20.1%	2.6%	0.7%	3.5%	1.5%	0.4%	1.4%	100%
1994	63.6%	23.9%	3.3%	0.7%	4.5%	1.8%	0.8%	1.4%	100%
1995	61.7%	26.0%	2.7%	0.6%	5.8%	1.6%	0.6%	0.8%	100%
1996	59.8%	26.6%	3.3%	0.6%	7.0%	1.5%	0.4%	0.8%	100%
1997	53.2%	30.8%	3.4%	0.6%	7.7%	1.7%	1.0%	1.4%	100%
1998	43.8%	36.9%	4.4%	0.6%	9.1%	2.2%	1.5%	1.5%	100%
1999	39.9%	39.7%	4.5%	0.7%	10.0%	2.3%	1.6%	1.4%	100%
2000	35.5%	42.5%	5.0%	0.7%	10.7%	2.7%	1.6%	1.4%	100%
2001	33.5%	44.5%	4.8%	0.7%	10.3%	3.5%	1.4%	1.3%	100%
2002	30.7%	45.8%	5.1%	0.5%	11.3%	3.9%	1.5%	1.2%	100%
2003	29.8%	46.2%	5.8%	0.4%	11.3%	3.9%	1.4%	1.2%	100%
2004	27.8%	47.5%	6.7%	0.2%	11.0%	4.3%	1.3%	1.2%	100%
2005	26.7%	48.9%	7.5%	0.2%	9.8%	4.5%	1.2%	1.1%	100%
2006	23.4%	51.4%	7.6%	0.1%	9.8%	5.3%	1.2%	1.1%	100%

N.B. Excludes gasoline and diesel.

Figure 4A.13. Residential Energy Consumption by Fuel, Mtce, 1980-2006

Figure 4A.14. Residential Energy Consumption by Fuel, Shares, 1980-2006

Table 4A.13.1. Urban and Rural Residential Energy Consumption (Coal)

Coal, Physical units, Shares

Sum of E	EBProce: EBUom				
	Urban	Rural	Total	Urban Share	Rural Share
EBYear	Mt	Mt	Mt		
1980			115.74		
1981			120.89		
1982			124.57		
1983			130.64		
1984			139.83		
1985	87.45	68.80	156.24	56.0%	44.0%
1986	89.53	68.69	158.22	56.6%	43.4%
1987	90.83	74.04	164.86	55.1%	44.9%
1988	93.78	81.47	175.25	53.5%	46.5%
1989	89.88	80.55	170.43	52.7%	47.3%
1990	88.94	78.06	167.00	53.3%	46.7%
1991	85.66	78.87	164.52	52.1%	47.9%
1992	72.48	75.33	147.81	49.0%	51.0%
1993	68.44	76.71	145.15	47.1%	52.9%
1994	56.59	73.88	130.47	43.4%	56.6%
1995	58.55	76.75	135.30	43.3%	56.7%
1996	60.77	83.22	143.99	42.2%	57.8%
1997	51.06	71.32	122.38	41.7%	58.3%
1998	35.85	52.99	88.84	40.4%	59.6%
1999	34.29	49.80	84.08	40.8%	59.2%
2000	30.76	48.31	79.07	38.9%	61.1%
2001	30.48	47.82	78.30	38.9%	61.1%
2002	28.30	47.73	76.03	37.2%	62.8%
2003	29.68	52.07	81.75	36.3%	63.7%
2004	26.16	55.58	81.73	32.0%	68.0%
2005	25.11	62.28	87.39	28.7%	71.3%
2006	23.93	59.93	83.86	28.5%	71.5%

Table 4A.13.2. Urban and Rural Residential Energy Consumption (Electricity)

Electricity, Physical units, Shares

Sum of E	EBProc:EBUom				
	Urban	Rural	Total	Urban Share	Rural Share
EBYear	TWh	TWh	TWh		
1980			10.52		
1981			11.80		
1982			12.05		
1983			13.73		
1984			15.91		
1985	12.25	10.00	22.25	55.1%	44.9%
1986	14.43	10.36	24.79	58.2%	41.8%
1987	16.23	12.42	28.65	56.6%	43.4%
1988	19.44	14.89	34.33	56.6%	43.4%
1989	22.51	17.01	39.52	57.0%	43.0%
1990	27.22	20.86	48.08	56.6%	43.4%
1991	31.97	22.39	54.36	58.8%	41.2%
1992	35.98	28.02	64.00	56.2%	43.8%
1993	41.33	32.38	73.71	56.1%	43.9%
1994	46.80	39.90	86.70	54.0%	46.0%
1995	57.47	43.09	100.56	57.1%	42.9%
1996	66.16	47.14	113.30	58.4%	41.6%
1997	73.44	51.88	125.32	58.6%	41.4%
1998	78.65	53.80	132.45	59.4%	40.6%
1999	86.17	61.91	148.08	58.2%	41.8%
2000	99.70	67.50	167.20	59.6%	40.4%
2001	106.62	77.31	183.92	58.0%	42.0%
2002	116.89	83.25	200.14	58.4%	41.6%
2003	135.74	88.07	223.80	60.6%	39.4%
2004	148.33	98.12	246.45	60.2%	39.8%
2005	171.44	111.04	282.48	60.7%	39.3%
2006	193.56	131.60	325.16	59.5%	40.5%

Table 4A.13.3. Urban and Rural Total Residential Energy Consumption (Mtce)

Mtce, Shares

Sum of EB	EBProcess				
EBYear	Urban	Rural	Total	Urban Share	Rural Share
1980			91.55		
1981			96.14		
1982			98.73		
1983			104.22		
1984			112.60		
1985	71.76	55.27	127.02	56.5%	43.5%
1986	75.57	55.24	130.81	57.8%	42.2%
1987	78.03	59.86	137.89	56.6%	43.4%
1988	82.75	66.07	148.82	55.6%	44.4%
1989	82.28	66.34	148.62	55.4%	44.6%
1990	84.27	65.66	149.94	56.2%	43.8%
1991	85.07	66.72	151.79	56.0%	44.0%
1992	79.62	67.53	147.16	54.1%	45.9%
1993	79.85	69.64	149.48	53.4%	46.6%
1994	76.85	70.87	147.72	52.0%	48.0%
1995	82.96	74.49	157.45	52.7%	47.3%
1996	91.19	81.56	172.75	52.8%	47.2%
1997	89.96	75.18	165.15	54.5%	45.5%
1998	83.25	63.00	146.24	56.9%	43.1%
1999	87.48	64.66	152.14	57.5%	42.5%
2000	94.20	66.07	160.27	58.8%	41.2%
2001	98.46	69.89	168.35	58.5%	41.5%
2002	105.70	72.46	178.16	59.3%	40.7%
2003	119.36	77.99	197.35	60.5%	39.5%
2004	127.85	84.77	212.62	60.1%	39.9%
2005	141.41	95.32	236.73	59.7%	40.3%
2006	157.14	102.39	259.53	60.5%	39.5%

Table 4A.14.1. Residential Energy Consumption by Province and Energy Source, 2002

Physical units, Total Mtce

Sum of EBAmount		EBMaterial EBUom						
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
		Mt	TWh	Mt	bm3	bm3	bm3	Mtce
East	Anhui	5.41	5.89	0.16	0.46			6.75
	Fujian	1.46	8.44	0.47				5.23
	Jiangsu	1.31	12.99	0.73	0.62		0.00	7.60
	Jiangxi	2.89	2.80	0.01	0.01	0.42		4.16
	Shandong	3.82	14.31	0.39			0.34	9.78
	Shanghai	1.02	6.19	0.19	0.03	1.24	0.11	4.83
	Zhejiang	0.64	12.48	1.09		0.05		8.35
East Total		16.55	63.09	3.04	1.11	1.72	0.45	46.71
North	Beijing	2.19	6.26	0.23	0.07		0.34	6.26
	Hebei	15.06	10.71	0.33	0.60	0.95		17.51
	Inner Mongolia	1.35	2.63	0.04	0.63		0.02	3.23
	Shanxi	5.68	3.35	0.02	0.60	0.61	0.19	7.93
	Tianjin	0.01	2.93	0.10	0.10		0.29	3.20
North Total		24.29	25.88	0.72	2.00	1.56	0.83	38.13
NorthEast	Heilongjiang	1.02	7.33	0.53			0.10	6.58
	Jilin	2.03	5.45	0.25	0.11	2.76		5.76
	Liaoning	5.35	9.92	0.45				10.24
NorthEast Total		8.39	22.70	1.23	0.11	2.76	0.10	22.57
NorthWest	Gansu	3.90	2.32	0.04	0.02		0.02	4.11
	Qinghai	0.89	0.68	0.10		0.67	0.46	1.90
	Shaanxi	2.09	3.99	0.38	0.02	0.20	0.68	4.68
	Xinjiang	6.10	1.92	0.14			0.03	6.55
NorthWest Total		12.98	8.91	0.66	0.04	0.87	1.20	17.24
SouthCentral	Guangdong	0.86	23.36	3.00		0.58		15.27
	Guangxi	0.11	5.53	0.43	0.03			3.34
	Henan	8.45	9.54	0.20	0.06	0.04	0.28	10.98
	Hubei	0.09	2.76					1.63
	Hunan	3.19		0.06	0.03			3.00
SouthCentral Total		12.71	41.18	3.70	0.11	0.62	0.28	34.22
SouthWest	Guizhou	10.66	4.69	0.07	0.06		0.01	9.67
	Sichuan	5.80	11.65				1.48	10.86
	Yunnan	4.31	4.69	0.04	0.17	0.02	0.00	5.19
	Chongqing	1.71	5.31				0.65	4.32
SouthWest Total		22.48	26.34	0.11	0.22	0.02	2.13	30.04
(blank)	China	76.03	200.14	11.69	3.62	8.96	5.12	178.16
(blank) Total		76.03	200.14	11.69	3.62	8.96	5.12	178.16

N.B. No data were reported for Hainan, Ningxia, and Tibet for 2002.

Table 4A.14.2. Residential Energy Consumption by Province and Energy Source, 2002

Physical units/capita

Sum of EBAmount/capita		kg/capita	kwh/capita	kg/capita	cu m/capita	cu m/capita	cu m/capita	kgce/capita
		EBMaterial						
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
East	Anhui	85.42	92.87	2.56	7.23	0.00	0.00	106.45
	Fujian	42.18	243.62	13.45	0.00	0.00	0.00	151.03
	Jiangsu	17.79	176.02	9.87	8.40	0.00	0.05	103.02
	Jiangxi	68.33	66.32	0.13	0.12	10.04	0.00	98.61
	Shandong	42.06	157.52	4.34	0.00	0.00	3.69	107.71
	Shanghai	62.89	380.62	11.60	1.60	76.49	6.58	296.93
	Zhejiang	13.73	268.52	23.50	0.00	1.16	0.00	179.69
East Total		45.03	171.62	8.26	5.67	16.40	2.47	127.05
North	Beijing	153.90	439.92	16.04	4.92	0.00	23.82	440.16
	Hebei	223.67	158.98	4.89	8.95	14.15	0.00	260.01
	Inner Mongolia	56.60	110.68	1.68	26.52	0.00	0.63	135.89
	Shanxi	172.36	101.55	0.75	18.15	18.43	5.83	240.67
	Tianjin	0.79	291.36	9.52	9.63	0.00	28.40	317.34
North Total		163.68	174.41	4.84	13.47	15.55	10.27	256.99
NorthEast	Heilongjiang	26.69	192.13	13.88	0.00	0.00	2.49	172.44
	Jilin	75.05	202.00	9.30	4.11	102.37	0.00	213.34
	Liaoning	127.32	235.97	10.75	0.00	0.00	0.00	243.55
NorthEast Total		78.34	211.82	11.50	4.11	102.37	2.49	210.64
NorthWest	Gansu	150.21	89.47	1.50	0.58	0.00	0.73	158.33
	Qinghai	168.24	129.11	18.90	0.00	127.03	87.71	359.52
	Shaanxi	56.92	108.55	10.30	0.60	5.33	18.62	127.48
	Xinjiang	320.21	100.79	7.46	0.00	0.00	1.68	343.89
NorthWest Total		149.13	102.41	7.58	0.59	20.65	13.78	198.16
SouthCentral	Guangdong	10.99	297.25	38.20	0.00	7.38	0.00	194.25
	Guangxi	2.32	114.70	8.94	0.56	0.00	0.00	69.34
	Henan	87.92	99.21	2.10	0.62	0.44	2.89	114.27
	Hubei	1.53	46.01	0.00	0.00	0.00	0.00	27.18
	Hunan	48.09	0.00	0.93	0.41	0.00	0.00	45.25
SouthCentral Total		36.40	145.62	12.78	0.54	3.56	2.89	98.03
SouthWest	Guizhou	277.74	122.28	1.75	1.43	0.00	0.13	252.00
	Sichuan	66.89	134.30	0.00	0.00	0.00	17.01	125.25
	Yunnan	99.47	108.22	0.99	3.85	0.51	0.07	119.76
	Chongqing	55.14	170.97	0.00	0.00	0.00	20.92	138.94
SouthWest Total		112.69	132.04	1.34	2.72	0.51	10.69	150.57
(blank)	China	59.19	155.81	9.10	2.82	6.97	3.98	138.70
(blank) Total		59.19	155.81	9.10	2.82	6.97	3.98	138.70

N.B. No data were reported for Hainan, Ningxia, and Tibet for 2002.

Table 4A.14.3. Residential Energy Consumption by Province and Energy Source, 2003

Physical units, Total Mtce

EYear	2003
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Sum of EBAmount		EBMaterial	EBUom					
		Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
scoProvRegion	EBScopeName	Mt	TWh	Mt	bm3	bm3	bm3	Mtce
East	Anhui	6.18	6.30	0.19	0.11			7.29
	Fujian	1.39	9.81	0.54				5.87
	Jiangsu	1.20	14.95	0.79	1.01		0.02	8.65
	Jiangxi	3.14	4.26	0.51		0.50		4.91
	Shandong	3.67	15.46	0.43	0.13		0.23	10.84
	Shanghai	0.80	8.29	0.19	0.04	1.35	0.13	5.59
	Zhejiang	0.53	15.30	1.21		0.06		8.49
East Total		16.90	74.37	3.86	1.29	1.90	0.38	51.65
North	Beijing	2.70	7.03	0.29	0.07		0.41	7.27
	Hebei	15.10	11.55	0.34	0.06	0.10	0.05	17.43
	Inner Mongolia	1.30	2.86	0.05	0.72		0.20	3.69
	Shanxi	6.76	0.36	0.04	0.60	0.60	0.25	7.31
	Tianjin	0.80	3.17	0.11	0.10		0.02	3.66
North Total		26.66	24.97	0.82	1.55	0.70	0.93	39.35
NorthEast	Heilongjiang	1.12	7.79	0.57			0.16	7.30
	Jilin	2.22	5.90	0.30	0.12			5.45
	Liaoning	5.28	1.08	0.45				7.17
NorthEast Total		8.62	14.77	1.32	0.12		0.16	19.91
NorthWest	Gansu	3.87	2.37	0.04	0.02	0.02	0.03	4.43
	Ningxia	1.08	0.80	0.03			0.01	1.45
	Qinghai	0.85	0.80			0.70	0.61	1.98
	Shaanxi	2.25	4.39	0.33	0.01	0.00	0.73	5.27
	Xinjiang	6.25	2.04	0.17	0.02		0.10	6.88
NorthWest Total		14.29	10.40	0.57	0.05	0.72	1.47	20.02
SouthCentral	Guangdong	0.71	25.77	3.42		0.63		16.86
	Guangxi	0.13	6.15	0.46	0.04			3.78
	Hainan		0.85	0.06			0.00	0.44
	Henan	8.19	10.55	0.20	0.06	0.04	0.32	11.37
	Hubei	5.50	8.79	0.33				7.96
	Hunan	3.33	8.23	0.08	0.02	0.07		5.88
SouthCentral Total		17.87	60.33	4.56	0.12	0.74	0.32	46.29
SouthWest	Guizhou	10.53	5.20	0.07	0.08		0.01	9.80
	Sichuan	8.50	11.88				1.59	13.06
	Yunnan	4.35	4.88	0.08	0.17		0.00	5.79
	Chongqing	1.72	4.84				0.65	4.13
SouthWest Total		25.10	26.80	0.15	0.25		2.25	32.78
(blank)	China	81.75	223.80	12.93	3.91	9.20	5.69	197.35
(blank) Total		81.75	223.80	12.93	3.91	9.20	5.69	197.35

Table 4A.14.4. Residential Energy Consumption by Province and Energy Source, 2003

Physical units/capita

Sum of EBAmount/capita		kg/capita	kwh/capita	kg/capita	cu m/capita	cu m/capita	cu m/capita	kgce/capita
EBMaterial								
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
East	Anhui	96.41	98.27	2.96	1.65	0.00	0.00	113.76
	Fujian	39.76	281.28	15.42	0.00	0.00	0.00	168.28
	Jiangsu	16.18	201.85	10.63	13.68	0.00	0.22	116.85
	Jiangxi	73.86	100.19	11.92	0.00	11.64	0.00	115.46
	Shandong	40.22	169.41	4.71	1.42	0.00	2.53	118.79
	Shanghai	46.59	484.34	11.30	2.22	79.14	7.66	326.56
	Zhejiang	11.24	326.99	25.91	0.00	1.18	0.00	181.46
East Total		45.58	200.60	10.41	5.22	17.89	2.07	139.31
North	Beijing	185.67	482.76	19.95	4.46	0.00	28.09	499.07
	Hebei	223.01	170.68	4.97	0.91	1.42	0.77	257.46
	Inner Mongolia	54.58	120.13	2.05	30.42	0.00	8.45	155.07
	Shanxi	204.01	10.79	1.13	18.23	18.11	7.54	220.52
	Tianjin	79.00	313.85	10.58	9.59	0.00	2.17	361.90
North Total		178.55	167.26	5.49	10.39	6.90	6.26	263.58
NorthEast	Heilongjiang	29.33	204.12	15.06	0.00	0.00	4.06	191.30
	Jilin	82.20	218.34	10.99	4.51	0.00	0.00	201.40
	Liaoning	125.34	25.71	10.69	0.00	0.00	0.00	170.24
NorthEast Total		80.33	137.70	12.32	4.51	0.00	4.06	185.58
NorthWest	Gansu	148.52	91.16	1.61	0.81	0.58	0.96	170.33
	Ningxia	186.21	137.93	5.52	0.00	0.00	1.72	250.21
	Qinghai	158.80	149.06	0.00	0.00	130.52	114.61	371.65
	Shaanxi	60.86	119.00	9.02	0.27	0.11	19.70	142.86
	Xinjiang	323.19	105.33	8.59	0.88	0.00	5.07	355.61
NorthWest Total		152.98	111.30	6.51	0.58	10.49	15.76	214.31
SouthCentral	Guangdong	8.95	323.93	42.98	0.00	7.87	0.00	212.02
	Guangxi	2.75	126.58	9.42	0.74	0.00	0.00	77.85
	Hainan	0.00	104.81	7.71	0.00	0.00	0.25	53.69
	Henan	84.76	109.08	2.10	0.64	0.40	3.31	117.59
	Hubei	91.69	146.52	5.58	0.00	0.00	0.00	132.70
	Hunan	49.95	123.47	1.25	0.33	1.07	0.00	88.24
SouthCentral Total		50.85	167.79	12.68	0.57	3.03	3.07	128.75
SouthWest	Chongqing	54.87	154.76	0.00	0.00	0.00	20.77	131.99
	Guizhou	272.18	134.34	1.68	2.02	0.00	0.13	253.12
	Sichuan	97.71	136.59	0.00	0.00	0.00	18.24	150.11
	Yunnan	99.35	111.45	1.87	3.84	0.00	0.07	132.38
SouthWest Total		125.02	133.51	1.78	2.98	0.00	11.18	163.28
(blank)	China	63.26	173.19	10.00	3.03	7.12	4.40	152.71
(blank) Total		63.26	173.19	10.00	3.03	7.12	4.40	152.71

Table 4A.14.5. Residential Energy Consumption by Province and Energy Source, 2004

Physical units, Total Mtce

EYear	2004
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Sum of EBAmount		EBMaterial	EBUom					
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
		Mt	TWh	Mt	bm3	bm3	bm3	Mtce
East	Anhui	6.22	0.72	0.25	0.08			5.41
	Fujian	1.36	11.01	0.58				6.51
	Jiangsu	0.89	17.10	0.81	0.64		0.03	9.12
	Jiangxi	2.10	4.69	0.27		0.11		3.89
	Shandong	3.27	17.21	0.48	0.26		0.24	11.69
	Shanghai	0.91	9.06	0.20		1.22	0.20	6.39
	Zhejiang	0.23	14.48	1.40		0.09	0.03	8.30
East Total		14.98	74.28	4.01	0.98	1.42	0.49	51.31
North	Beijing	2.47	0.81	0.33	0.04		0.49	5.05
	Hebei	14.48	12.88	0.34	0.07	1.00	0.06	17.82
	Inner Mongolia	10.31	3.31	0.05	0.43	0.60	0.40	11.11
	Shanxi	6.73	3.90	0.05	0.62	0.37	0.03	8.62
	Tianjin	0.84	3.35	0.09	0.08		0.21	4.20
North Total		34.84	24.23	0.85	1.24	1.97	1.19	46.81
NorthEast	Heilongjiang	1.07	8.04	0.54			0.19	7.89
	Jilin	2.30	6.11	0.31	0.13			5.64
	Liaoning	5.21	11.78	0.47		1.59	0.19	13.09
NorthEast Total		8.59	25.93	1.32	0.13	1.59	0.38	26.63
NorthWest	Gansu	3.84	2.74	0.04		0.03	0.03	4.52
	Ningxia	0.94						3.88
	Qinghai	0.78	0.85	0.07		0.67	0.69	2.16
	Shaanxi	1.81	4.54	0.33			0.80	5.33
	Xinjiang	6.05	2.43	0.17		3.02	0.10	7.88
NorthWest Total		13.41	10.56	0.62		3.72	1.62	23.77
SouthCentral	Guangdong	0.79	28.74	3.43		0.63		18.38
	Guangxi	0.18	6.01	0.50			0.00	3.86
	Hainan		1.02	0.04			0.00	0.52
	Henan	7.97	12.05	0.23		0.05	0.50	12.04
	Hubei	4.21	9.45	0.52				7.60
	Hunan	2.71	8.57	0.13				5.57
SouthCentral Total		15.86	65.82	4.85		0.68	0.51	47.97
SouthWest	Guizhou	10.45	5.59	0.07	0.09			9.89
	Sichuan	8.57	13.11				1.99	14.16
	Yunnan	4.62	3.29		0.16	0.01		4.75
	Chongqing	1.72	5.36				0.65	4.34
SouthWest Total		25.35	27.35	0.07	0.24	0.01	2.64	33.14
(blank)	China	81.73	246.45	13.50	4.12	9.69	6.72	212.62
(blank) Total		81.73	246.45	13.50	4.12	9.69	6.72	212.62

Table 4A.14.6. Residential Energy Consumption by Province and Energy Source, 2004

Physical units/capita

Sum of EBAmount/capita		kg/capita	kwh/capita	kg/capita	cu m/capita	cu m/capita	cu m/capita	kgce/capita
EBMaterial								
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
East	Anhui	96.27	11.22	3.93	1.24	0.00	0.00	83.73
	Fujian	38.73	313.64	16.57	0.00	0.00	0.00	185.35
	Jiangsu	11.98	230.07	10.96	8.58	0.00	0.35	122.76
	Jiangxi	48.95	109.41	6.25	0.00	2.47	0.00	90.70
	Shandong	35.63	187.47	5.23	2.86	0.00	2.58	127.35
	Shanghai	52.03	520.32	11.69	0.00	70.21	11.31	367.05
	Zhejiang	4.98	306.80	29.75	0.00	1.91	0.66	175.87
East Total		40.13	198.98	10.73	4.25	13.20	2.13	137.46
North	Beijing	165.51	53.95	21.92	2.55	0.00	32.48	338.45
	Hebei	212.66	189.12	4.96	1.04	14.70	0.90	261.70
	Inner Mongolia	432.52	138.72	2.08	18.16	25.04	16.86	466.11
	Shanxi	201.87	116.85	1.43	18.68	11.15	0.83	258.45
	Tianjin	82.29	326.66	8.72	7.42	0.00	20.70	410.57
North Total		231.55	161.06	5.66	8.25	15.72	7.89	311.12
NorthEast	Heilongjiang	28.04	210.64	14.27	0.00	0.00	5.06	206.79
	Jilin	85.06	225.54	11.35	4.95	0.00	0.00	208.35
	Liaoning	123.56	279.35	11.04	0.00	37.63	4.41	310.43
NorthEast Total		79.91	241.37	12.26	4.95	37.63	4.72	247.87
NorthWest	Gansu	146.52	104.66	1.60	0.00	1.26	1.11	172.47
	Ningxia	159.86	0.00	0.00	0.00	0.00	0.00	659.11
	Qinghai	143.97	158.07	13.41	0.00	124.49	128.39	400.42
	Shaanxi	48.78	122.54	9.01	0.00	0.00	21.51	143.95
	Xinjiang	308.20	123.59	8.66	0.00	153.74	5.09	401.51
NorthWest Total		142.45	119.64	7.00	0.00	72.68	18.33	252.45
SouthCentral	Guangdong	9.55	346.05	41.26	0.00	7.59	0.00	221.35
	Guangxi	3.63	122.87	10.28	0.00	0.00	0.04	78.88
	Hainan	0.00	124.21	5.22	0.00	0.00	0.37	63.88
	Henan	82.07	123.99	2.37	0.00	0.50	5.17	123.93
	Hubei	70.02	157.08	8.65	0.00	0.00	0.00	126.31
	Hunan	40.39	127.87	1.88	0.00	0.00	0.00	83.22
SouthCentral Total		44.53	180.62	13.30	0.00	3.77	3.29	131.65
SouthWest	Chongqing	55.02	171.56	0.00	0.00	0.00	20.82	138.97
	Guizhou	267.66	143.14	1.74	2.20	0.00	0.00	253.43
	Sichuan	98.17	150.29	0.00	0.00	0.00	22.77	162.24
	Yunnan	104.62	74.59	0.00	3.53	0.18	0.00	107.67
SouthWest Total		125.72	135.62	1.74	2.91	0.18	22.26	164.34
(blank)	China	62.88	189.59	10.39	3.17	7.46	5.17	163.57
(blank) Total		62.88	189.59	10.39	3.17	7.46	5.17	163.57

Table 4A.14.7. Residential Energy Consumption by Province and Energy Source, 2005

Physical units, Total Mtce

EYear	2005
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Sum of EBAmount		EBMaterial	EBUom					
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
		Mt	TWh	Mt	bm3	bm3	bm3	Mtce
East	Anhui	5.80	8.97	0.28	0.24		0.04	8.58
	Fujian	2.56	12.20	0.54				7.85
	Jiangsu	1.20	20.07	0.79	0.36	0.20	0.14	11.92
	Jiangxi	2.62	6.55	0.24		0.11	0.01	5.15
	Shandong	6.23	21.00	1.49	0.40		0.46	18.31
	Shanghai	0.73	10.92	0.25	0.03	1.12	0.29	7.33
	Zhejiang	1.30	17.32	1.47			0.07	11.14
East Total		20.44	97.03	5.06	1.02	1.43	1.00	70.29
North	Beijing	2.34	8.89	0.32	0.03		0.57	8.73
	Hebei	14.21	15.31	0.34	0.74		0.08	19.35
	Inner Mongolia	8.11	4.18	0.12	0.32	0.15	0.02	9.14
	Shanxi	8.18	4.60	0.05	0.97	0.40	0.05	9.69
	Tianjin	0.89	3.80	0.07	0.07		0.31	4.65
North Total		33.72	36.77	0.90	2.14	0.55	1.02	51.56
NorthEast	Heilongjiang	1.17	8.83	0.55			0.21	8.64
	Jilin	2.61	5.82	0.45	0.41		0.06	6.87
	Liaoning	5.47	13.14	0.55		1.06		14.11
NorthEast Total		9.26	27.79	1.54	0.41	1.06	0.27	29.63
NorthWest	Gansu	3.96	3.25	0.05	0.04	0.00	0.04	4.87
	Ningxia	1.20	1.00	0.03			0.02	1.46
	Qinghai	0.79	0.91			0.44	0.84	2.21
	Shaanxi	4.00	5.54	0.44		0.38	0.18	7.05
	Xinjiang	4.31	2.71	0.13	0.02		0.15	6.36
NorthWest Total		14.25	13.39	0.65	0.05	0.83	1.23	21.94
SouthCentral	Guangdong	0.96	32.86	4.00		0.69		21.96
	Guangxi	0.19	6.94	0.54			0.11	4.52
	Hainan		1.16	0.05			0.01	0.60
	Henan	12.20	12.56	0.26	0.08	0.05	0.54	15.51
	Hubei	4.68	11.29	0.41			0.20	8.82
	Hunan	6.01	11.05	0.15			0.03	10.51
SouthCentral Total		24.04	75.87	5.41	0.08	0.75	0.88	61.91
SouthWest	Guizhou	10.36	5.97	0.07	0.09		0.04	10.03
	Sichuan	5.80	14.35				2.19	12.95
	Yunnan	3.88	7.35	0.09	0.20	0.04	0.02	6.69
	Chongqing	1.55	6.09				0.80	4.72
SouthWest Total		21.58	33.75	0.15	0.29	0.04	3.05	34.39
(blank)	China	87.39	282.48	13.29	4.42	10.06	7.94	236.73
(blank) Total		87.39	282.48	13.29	4.42	10.06	7.94	236.73

Table 4A.14.8. Residential Energy Consumption by Province and Energy Source, 2005

Physical units/capita

Sum of EBAmount/capita		kg/capita	kwh/capita	kg/capita	cu m/capita	cu m/capita	cu m/capita	kgce/capita
EBMaterial								
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
East	Anhui	94.77	146.57	4.59	3.92	0.00	0.65	140.27
	Fujian	72.39	345.04	15.19	0.00	0.00	0.00	222.01
	Jiangsu	16.10	268.52	10.56	4.75	2.68	1.82	159.53
	Jiangxi	60.84	152.01	5.62	0.00	2.53	0.12	119.49
	Shandong	67.34	227.08	16.06	4.33	0.00	4.97	198.02
	Shanghai	40.96	614.17	14.24	1.57	63.16	16.25	412.12
	Zhejiang	26.54	353.63	30.07	0.00	0.00	1.47	227.51
East Total		54.71	259.69	13.54	4.15	10.56	2.96	188.12
North	Beijing	151.82	578.15	20.51	2.21	0.00	36.80	567.30
	Hebei	207.35	223.40	4.94	10.74	0.00	1.15	282.51
	Inner Mongolia	340.00	175.19	5.08	13.54	6.12	0.80	383.25
	Shanxi	243.76	137.02	1.51	28.94	11.92	1.43	288.77
	Tianjin	85.31	363.95	6.84	7.09	0.00	29.82	445.37
North Total		222.24	242.34	5.91	14.09	9.51	6.74	339.80
NorthEast	Heilongjiang	30.72	231.15	14.31	0.00	0.00	5.39	226.28
	Jilin	96.27	214.40	16.48	15.21	0.00	2.25	253.10
	Liaoning	129.63	311.21	12.95	0.00	25.09	0.00	334.33
NorthEast Total		86.08	258.33	14.33	15.21	25.09	4.09	275.45
NorthWest	Gansu	152.54	125.13	1.90	1.43	0.08	1.54	187.65
	Ningxia	201.69	166.95	5.40	0.00	0.00	3.52	244.79
	Qinghai	144.57	166.67	0.00	0.00	81.77	153.78	406.42
	Shaanxi	107.60	148.79	11.75	0.00	10.19	4.81	189.61
	Xinjiang	214.32	134.83	6.45	0.80	0.00	7.46	316.30
NorthWest Total		150.64	141.51	7.26	1.15	12.03	12.95	231.90
SouthCentral	Guangdong	10.49	357.43	43.46	0.00	7.54	0.00	238.80
	Guangxi	3.98	149.01	11.64	0.00	0.00	2.40	96.89
	Hainan	0.00	140.10	6.36	0.00	0.00	0.60	72.22
	Henan	130.06	133.90	2.72	0.82	0.57	5.70	165.37
	Hubei	81.96	197.74	7.16	0.00	0.00	3.50	154.44
	Hunan	95.05	174.74	2.43	0.00	0.00	0.47	166.09
SouthCentral Total		68.17	210.18	14.99	0.82	4.02	3.28	171.49
SouthWest	Chongqing	55.40	217.66	0.00	0.00	0.00	28.59	168.73
	Guizhou	277.69	159.95	1.75	2.44	0.00	1.10	269.01
	Sichuan	70.58	174.70	0.00	0.00	0.00	26.61	157.70
	Yunnan	87.09	165.12	1.98	4.54	0.85	0.45	150.30
SouthWest Total		112.45	175.87	1.88	3.58	0.85	15.87	179.23
(blank)	China	66.83	216.04	10.16	3.38	7.69	6.07	181.05
(blank) Total		66.83	216.04	10.16	3.38	7.69	6.07	181.05

Table 4A.14.9. Residential Energy Consumption by Province and Energy Source, 2006

Physical units, Total Mtce

EBYear	2006
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Sum of EBAmount		EBMaterial	EBUom					
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
		Mt	TWh	Mt	bm3	bm3	bm3	Mtce
East	Anhui	4.92	10.23	0.30	0.18		0.08	8.45
	Fujian	2.35	14.11	0.54				8.48
	Jiangsu	0.93	23.43	0.71			0.23	13.04
	Jiangxi	2.44	7.51	0.27	0.03	0.11	0.03	5.52
	Shandong	6.44	23.93	1.54	0.42		0.48	19.87
	Shanghai	0.65	12.24	0.28	0.03	1.06	0.53	8.40
	Zhejiang	1.05	20.16	1.55			0.17	12.55
East Total		18.78	111.60	5.20	0.65	1.17	1.53	76.31
North	Beijing	2.67	9.59	0.24	0.02		0.84	9.86
	Hebei	12.01	17.83	0.34	0.74		0.03	18.56
	Inner Mongolia	6.48	4.65	0.12	0.22	0.50	0.19	9.77
	Shanxi	8.42	5.35	0.05	1.07	0.22	0.11	10.41
	Tianjin	0.76	4.30	0.07	0.05		0.32	4.86
North Total		30.34	41.71	0.82	2.10	0.73	1.49	53.46
NorthEast	Heilongjiang	1.80	10.01	0.69				9.98
	Jilin	2.75	6.38	0.42	0.17		0.06	7.27
	Liaoning	5.21	14.57	0.55		1.17		15.47
NorthEast Total		9.77	30.96	1.66	0.17	1.17	0.06	32.72
NorthWest	Gansu	3.99	3.37	0.05	0.04	0.00	0.07	4.96
	Ningxia	1.09	1.11	0.04			0.10	1.59
	Qinghai	0.80	0.99	0.05		0.11	0.84	2.25
	Shaanxi	4.22	6.21	0.44		0.23	0.98	8.54
	Xinjiang	2.11	3.19	0.14	0.02		0.26	5.28
NorthWest Total		12.21	14.87	0.71	0.06	0.34	2.24	22.62
SouthCentral	Guangdong	0.78	36.60	3.73		0.76	0.21	23.88
	Guangxi	0.26	8.05	0.66			0.05	5.20
	Hainan	0.03	1.27	0.05			0.01	0.71
	Henan	12.19	14.30	0.25	0.15	0.13	0.50	16.27
	Hubei	5.65	13.35	0.44			0.20	10.39
	Hunan	4.96	13.95	0.16		0.16	0.07	11.26
SouthCentral Total		23.87	87.52	5.30	0.15	1.04	1.04	67.71
SouthWest	Guizhou	9.47	6.27	0.06	0.09		0.01	9.46
	Sichuan	5.79	13.82				2.20	12.76
	Yunnan	3.55	7.67	0.10	0.22	0.03	0.02	6.70
	Chongqing	1.55	7.65	0.04			0.80	5.41
SouthWest Total		20.36	35.41	0.20	0.32	0.03	3.03	34.34
(blank)	China	83.86	325.16	14.56	4.58	11.06	10.26	259.53
(blank) Total		83.86	325.16	14.56	4.58	11.06	10.26	259.53

Table 4A.14.10. Residential Energy Consumption by Province and Energy Source, 2006

Physical units/capita

Sum of EBAmount/capita		kg/capita	kwh/capita	kg/capita	cu m/capita	cu m/capita	cu m/capita	kgce/capita
EBMaterial								
scoProvRegion	EBScopeName	Total Coal	Electricity	Liquid Petroleum Gas	Coke Oven Gas	Coal Gas not Coke Source	Natural Gas	Total Energy
East	Anhui	83.02	129.43	3.73	5.11	0.00	1.36	122.10
	Fujian	54.27	321.13	14.30	0.00	0.00	0.00	195.31
	Jiangsu	14.99	243.92	9.63	8.40	0.00	1.57	138.25
	Jiangxi	62.23	120.45	3.23	0.41	6.18	0.74	113.11
	Shandong	55.77	207.89	10.53	4.47	0.00	4.45	161.25
	Shanghai	48.72	535.52	13.66	1.48	67.06	18.58	384.30
	Zhejiang	17.54	338.97	27.44	0.00	1.16	3.39	217.09
East Total		47.48	234.73	11.06	4.27	17.36	3.78	165.30
North	Beijing	161.66	527.53	15.55	2.86	0.00	39.25	536.74
	Hebei	198.60	209.31	4.91	9.86	14.15	0.49	264.58
	Inner Mongolia	163.82	152.39	3.35	17.86	20.98	4.23	272.33
	Shanxi	211.43	130.33	1.09	24.98	12.45	4.57	275.02
	Tianjin	36.82	347.65	7.99	7.25	0.00	28.91	386.79
North Total		181.08	224.08	5.09	13.59	14.47	9.91	303.65
NorthEast	Heilongjiang	36.96	227.07	15.95	0.00	0.00	2.49	216.79
	Jilin	88.15	218.19	12.40	5.22	102.37	2.20	240.22
	Liaoning	124.66	288.99	11.78	0.00	27.46	0.00	303.42
NorthEast Total		84.37	249.20	13.41	5.22	56.47	2.37	256.78
NorthWest	Gansu	151.68	109.44	1.71	1.04	0.08	1.71	174.42
	Ningxia	180.36	183.28	6.27	0.00	0.00	15.73	262.83
	Qinghai	156.69	155.71	13.62	0.00	72.33	120.89	385.29
	Shaanxi	85.18	137.59	11.02	0.60	5.75	22.45	178.51
	Xinjiang	207.59	129.20	7.16	0.78	0.00	7.38	299.22
NorthWest Total		138.04	130.33	7.53	0.84	10.88	18.86	218.51
SouthCentral	Guangdong	9.60	349.37	39.25	0.00	7.78	2.29	228.08
	Guangxi	3.87	142.38	11.40	0.56	0.00	1.04	89.59
	Hainan	3.71	151.79	6.52	0.00	0.00	0.96	84.61
	Henan	108.60	125.41	2.38	1.08	0.88	4.09	143.42
	Hubei	49.17	137.90	7.65	0.00	0.00	3.51	102.89
	Hunan	62.84	155.00	1.74	0.41	2.46	1.02	129.08
SouthCentral Total		51.38	189.42	13.79	0.85	3.90	2.86	146.66
SouthWest	Chongqing	55.17	219.09	1.50	0.00	0.00	24.51	164.45
	Guizhou	264.97	144.35	1.65	1.95	0.00	0.16	251.96
	Sichuan	68.82	151.22	0.00	0.00	0.00	21.84	140.29
	Yunnan	89.20	140.20	1.61	4.41	0.59	0.26	134.91
SouthWest Total		109.38	157.66	1.61	3.27	0.59	13.18	164.38
(blank)	China	63.21	196.66	10.15	3.18	7.53	5.50	166.86
(blank) Total		63.21	196.66	10.15	3.18	7.53	5.50	166.86

Table 4A.15.1. Commercial Sector Energy Consumption

Physical units

Sum of E	EBMaterial	EBUom				
	Total Coal	Coke	Electricity	Total Petroleum	Natural Gas	Heat
EBYear	Mt	Mt	TWh	Mt	bm3	PJ
1980	4.55	0.01	1.68	0.29		17.00
1981	5.24	0.01	1.91	0.34		17.63
1982	5.66	0.01	2.03	0.37		17.98
1983	6.35	0.00	2.39	0.39		18.38
1984	7.33	0.01	2.87	0.39		19.50
1985	7.38	0.03	3.80	0.38		0.39
1986	7.79	0.09	4.12	0.50		0.47
1987	8.25	0.09	4.91	0.60		0.89
1988	9.32	0.06	6.25	0.83	0.01	0.87
1989	10.24	0.09	6.87	0.92		1.35
1990	10.58	0.08	7.62	0.78		1.67
1991	9.95	0.09	9.00	0.87		2.57
1992	9.58	0.15	11.13	1.40		3.11
1993	10.27	0.22	13.57	3.26	0.49	2.75
1994	10.20	0.25	17.92	2.27	0.03	1.86
1995	9.77	0.26	19.95	3.34	0.06	1.22
1996	10.74	0.28	22.31	3.68	0.10	3.20
1997	8.63	0.35	26.51	4.17	0.10	8.68
1998	9.48	0.39	29.34	4.26	0.25	7.91
1999	8.96	0.37	34.28	5.37	0.29	10.98
2000	8.15	0.36	39.37	5.45	0.34	11.24
2001	8.11	0.40	44.49	5.67	0.50	11.64
2002	8.09	0.43	50.00	5.93	0.61	14.66
2003	8.60	0.47	62.30	6.82	0.69	15.44
2004	8.72	0.53	73.54	8.19	0.92	22.07
2005	8.74	0.64	75.23	9.16	1.08	22.07
2006	8.91	0.65	84.73	9.92	1.32	26.92

Table 4A.15.2. Commercial Sector Energy Consumption (Mtce)

Mtce

Sum of E	EBMaterial					
EBYear	Total Coal	Coke	Electricity	Total Petroleum	Natural Gas	Heat
1980	3.25	0.01	0.68	0.41		0.58
1981	3.74	0.01	0.77	0.49		0.60
1982	4.04	0.01	0.82	0.53		0.61
1983	4.53	0.00	0.97	0.56		0.62
1984	5.24	0.01	1.16	0.56		0.66
1985	5.27	0.03	1.54	0.54		0.01
1986	5.56	0.09	1.66	0.72		0.02
1987	5.89	0.09	1.98	0.86		0.03
1988	6.66	0.06	2.53	1.19	0.01	0.03
1989	7.31	0.08	2.78	1.32		0.05
1990	7.56	0.07	3.08	1.11		0.06
1991	7.10	0.09	3.64	1.24		0.09
1992	6.84	0.15	4.50	2.00		0.11
1993	7.33	0.21	5.48	4.67	0.66	0.09
1994	7.29	0.24	7.24	3.25	0.05	0.06
1995	6.98	0.25	8.06	4.77	0.07	0.04
1996	7.67	0.27	9.01	5.26	0.13	0.11
1997	6.16	0.34	10.71	5.96	0.13	0.30
1998	6.77	0.38	11.85	6.09	0.34	0.27
1999	6.40	0.35	13.85	7.68	0.39	0.37
2000	5.82	0.35	15.90	7.79	0.46	0.38
2001	5.79	0.39	17.97	8.11	0.67	0.40
2002	5.78	0.41	20.20	8.48	0.81	0.50
2003	6.14	0.46	25.17	9.76	0.91	0.52
2004	6.22	0.52	29.71	11.71	1.22	0.75
2005	6.24	0.62	30.39	13.09	1.44	0.75
2006	6.37	0.63	34.23	14.19	1.75	0.92

Table 4A.15.3. Commercial Sector Energy Consumption (Shares)

Shares

Sum of EEBMaterial							
EYear	Total Coal	Coke	Total Petroleum	Electricity	Natural Gas	Heat	Grand Total
1980	65.9%	0.2%	8.4%	13.8%	0.0%	11.7%	100%
1981	66.7%	0.2%	8.8%	13.7%	0.0%	10.7%	100%
1982	67.2%	0.2%	8.8%	13.7%	0.0%	10.2%	100%
1983	67.8%	0.1%	8.4%	14.4%	0.0%	9.3%	100%
1984	68.7%	0.1%	7.3%	15.2%	0.0%	8.7%	100%
1985	71.3%	0.4%	7.4%	20.8%	0.0%	0.2%	100%
1986	69.1%	1.1%	8.9%	20.7%	0.0%	0.2%	100%
1987	66.6%	1.0%	9.7%	22.4%	0.0%	0.3%	100%
1988	63.5%	0.6%	11.4%	24.1%	0.1%	0.3%	100%
1989	63.4%	0.7%	11.4%	24.1%	0.0%	0.4%	100%
1990	63.6%	0.6%	9.3%	25.9%	0.0%	0.5%	100%
1991	58.5%	0.7%	10.2%	29.9%	0.0%	0.7%	100%
1992	50.4%	1.1%	14.7%	33.1%	0.0%	0.8%	100%
1993	39.8%	1.1%	25.3%	29.7%	3.6%	0.5%	100%
1994	40.2%	1.3%	17.9%	39.9%	0.2%	0.3%	100%
1995	34.6%	1.2%	23.7%	39.9%	0.4%	0.2%	100%
1996	34.2%	1.2%	23.4%	40.1%	0.6%	0.5%	100%
1997	26.1%	1.4%	25.2%	45.4%	0.6%	1.3%	100%
1998	26.3%	1.5%	23.7%	46.1%	1.3%	1.0%	100%
1999	22.0%	1.2%	26.4%	47.7%	1.3%	1.3%	100%
2000	18.9%	1.1%	25.4%	51.8%	1.5%	1.2%	100%
2001	17.4%	1.2%	24.3%	53.9%	2.0%	1.2%	100%
2002	16.0%	1.1%	23.4%	55.8%	2.2%	1.4%	100%
2003	14.3%	1.1%	22.7%	58.6%	2.1%	1.2%	100%
2004	12.4%	1.0%	23.4%	59.3%	2.4%	1.5%	100%
2005	11.9%	1.2%	24.9%	57.9%	2.7%	1.4%	100%
2006	11.0%	1.1%	24.4%	58.9%	3.0%	1.6%	100%

Figure 4A.15. Commerical Sector Energy Consumption by Fuel, 1980-2006

Figure 4A.16. Commerical Sector Energy Consumption by Fuel, Shares, 1980-2006

Table 4A.16.1. Construction Energy Consumption

Physical units, Total Mtce

Sum of EB	EBMaterial	EBUom				
	Total Coal	Diesel Oil	Gasoline	Petroleum Other Products	Electricity	Total Energy
EBYear	Mt	Mt	Mt	Mt	TWh	Mtce
1980	5.56	0.77	0.54		4.71	9.30
1981	3.59	0.73	0.49		4.66	7.69
1982	4.14	0.79	0.55		5.00	8.39
1983	4.67	0.95	0.62		5.27	9.37
1984	4.71	1.07	0.64		5.77	10.04
1985	5.32	1.25	0.73		7.12	12.81
1986	4.98	1.50	0.79		5.35	12.06
1987	4.53	1.55	0.88		5.84	12.44
1988	4.45	1.42	0.87		6.27	11.40
1989	4.53	1.47	0.96		6.52	12.52
1990	4.38	1.33	0.90		6.50	11.92
1991	4.32	1.51	0.96		7.42	12.59
1992	4.66	1.70	1.08		8.25	13.66
1993	5.00	1.03	1.26		12.92	13.05
1994	5.04	1.12	1.05		14.97	13.43
1995	4.40	1.18	1.04		15.96	13.39
1996	4.46	1.30	1.06		18.18	14.61
1997	3.83	1.46	1.08		11.74	11.75
1998	6.12	1.53	1.13		18.88	16.40
1999	5.22	1.78	1.14	4.24	14.23	20.47
2000	5.37	1.96	1.16	4.86	15.48	22.30
2001	5.35	2.23	1.17	5.61	14.49	23.41
2002	5.54	2.52	1.22	6.86	16.41	26.64
2003	5.77	2.76	1.24	8.00	18.98	29.75
2004	6.02	3.33	1.56	9.03	22.21	34.10
2005	6.04	3.87	1.72	9.23	23.39	35.78
2006	5.82	4.29	1.81	10.15	27.11	39.25

N.B. Total energy includes additional sources not listed in this table.

Table 4A.16.2. Construction Energy Consumption (Mtce)

Mtce

Sum of	EBMaterial					
EBYear	Total Coal	Diesel Oil	Gasoline	Petroleum Other Products	Electricity	Total Energy
1980	3.97	1.11	0.80		1.90	9.30
1981	2.56	1.06	0.73		1.88	7.69
1982	2.96	1.16	0.81		2.02	8.39
1983	3.33	1.38	0.91		2.13	9.37
1984	3.36	1.56	0.94		2.33	10.04
1985	3.80	1.82	1.07		2.88	12.81
1986	3.56	2.19	1.17		2.16	12.06
1987	3.24	2.26	1.30		2.36	12.44
1988	3.18	2.07	1.28		2.53	11.40
1989	3.23	2.14	1.40		2.63	12.52
1990	3.12	1.94	1.32		2.63	11.92
1991	3.09	2.20	1.41		3.00	12.59
1992	3.33	2.48	1.59		3.33	13.66
1993	3.57	1.50	1.85		5.22	13.05
1994	3.60	1.64	1.54		6.05	13.43
1995	3.14	1.72	1.52		6.45	13.39
1996	3.19	1.89	1.56		7.35	14.61
1997	2.73	2.13	1.58		4.74	11.75
1998	4.37	2.23	1.66		7.63	16.40
1999	3.73	2.59	1.67	5.56	5.75	20.47
2000	3.83	2.85	1.70	6.37	6.25	22.30
2001	3.82	3.25	1.72	7.36	5.85	23.41
2002	3.95	3.67	1.80	8.99	6.63	26.64
2003	4.12	4.02	1.82	10.48	7.67	29.75
2004	4.29	4.85	2.30	11.82	8.97	34.10
2005	4.31	5.63	2.53	12.09	9.45	35.78
2006	4.16	6.25	2.66	13.30	10.95	39.25

N.B. Total energy includes additional sources not listed in this table.

Table 4A.16.3. Construction Energy Consumption (Shares)

Shares

Sum of E	EBMaterial					
EBYear	Total Coal	Diesel Oil	Gasoline	Petroleum Other Products	Electricity	Total Energy
1980	42.7%	12.0%	8.6%	-	20.5%	100%
1981	33.3%	13.8%	9.4%	-	24.5%	100%
1982	35.2%	13.8%	9.6%	-	24.1%	100%
1983	35.6%	14.7%	9.7%	-	22.7%	100%
1984	33.5%	15.5%	9.4%	-	23.2%	100%
1985	29.6%	14.2%	8.4%	-	22.5%	100%
1986	29.5%	18.1%	9.7%	-	17.9%	100%
1987	26.0%	18.1%	10.4%	-	19.0%	100%
1988	27.9%	18.2%	11.2%	-	22.2%	100%
1989	25.8%	17.1%	11.2%	-	21.0%	100%
1990	26.2%	16.3%	11.0%	-	22.0%	100%
1991	24.5%	17.5%	11.2%	-	23.8%	100%
1992	24.4%	18.1%	11.6%	-	24.4%	100%
1993	27.3%	11.5%	14.2%	-	40.0%	100%
1994	26.8%	12.2%	11.5%	-	45.0%	100%
1995	23.5%	12.9%	11.4%	-	48.2%	100%
1996	21.8%	12.9%	10.7%	-	50.3%	100%
1997	23.3%	18.1%	13.5%	-	40.4%	100%
1998	26.6%	13.6%	10.1%	-	46.5%	100%
1999	18.2%	12.7%	8.2%	27.2%	28.1%	100%
2000	17.2%	12.8%	7.6%	28.6%	28.0%	100%
2001	16.3%	13.9%	7.3%	31.4%	25.0%	100%
2002	14.8%	13.8%	6.8%	33.7%	24.9%	100%
2003	13.9%	13.5%	6.1%	35.2%	25.8%	100%
2004	12.6%	14.2%	6.8%	34.7%	26.3%	100%
2005	12.0%	15.7%	7.1%	33.8%	26.4%	100%
2006	10.6%	15.9%	6.8%	33.9%	27.9%	100%

N.B. Total energy includes additional sources not listed in this table.

Figure 4A.17. Construction Sector Energy Consumption by Fuel, Mtce, 1980-2006

Figure 4A.18. Construction Sector Energy Consumption by Fuel, Shares, 1980-2006

Table 4A.17.1. End Use Energy Consumption by Source (Mtce)

Mtce

Sum of E	BMaterial									
E	Total		Total	Natural	Coal Gas	Coke			Other	Total
Year	Coal	Coke	Petroleum	Gas	not Coke	Oven	Electricity	Heat	Energy	Energy
					Source	Gas				
1980	277.06	41.70	90.25	18.17		6.39	111.64	10.51		558.30
1981	279.81	38.04	84.91	15.92		6.56	114.76	10.90		553.21
1982	297.62	38.73	85.67	15.22		6.60	121.92	11.11		579.24
1983	320.40	40.21	88.67	15.49		7.27	131.06	11.36		616.97
1984	348.29	42.94	93.59	16.12		7.39	140.75	12.05		663.84
1985	376.31	45.42	101.01	16.45	0.62	6.89	154.06	12.99		716.50
1986	389.06	50.89	109.06	17.09	1.05	8.27	168.67	14.05		760.49
1987	413.21	55.27	117.49	17.05	1.13	7.28	186.81	15.77		816.30
1988	439.39	58.14	125.48	17.97	1.31	8.30	205.53	16.06		874.69
1989	442.84	61.46	133.33	18.22	1.72	9.06	220.26	17.86		907.42
1990	429.87	66.48	133.06	18.54	1.70	9.38	234.15	21.05		917.19
1991	435.32	68.52	145.62	19.83	1.78	10.54	255.19	23.22		962.85
1992	433.16	75.65	155.83	19.70	2.29	9.98	284.55	25.52		1009.97
1993	443.84	84.93	171.23	20.71	3.36	11.57	315.42	31.55		1085.73
1994	451.89	87.46	178.27	21.48	3.76	11.22	350.04	37.32	0.12	1145.05
1995	472.35	103.39	195.57	21.98	19.90	11.91	374.87	35.92	4.50	1243.65
1996	488.76	104.39	218.82	22.81	17.61	12.12	403.79	38.43	1.03	1311.47
1997	441.19	105.34	239.81	22.34	17.52	13.22	423.64	39.41	2.21	1307.91
1998	402.32	106.89	250.45	23.38	14.87	12.86	436.62	42.84	1.50	1293.69
1999	354.96	100.04	266.90	24.87	12.85	12.55	462.31	45.15	3.04	1284.74
2000	334.30	99.99	284.48	27.79	13.49	13.27	506.40	49.09	2.97	1334.16
2001	325.67	105.31	291.10	31.74	13.79	13.73	553.08	51.48	3.05	1391.51
2002	303.97	118.53	314.45	34.24	13.92	14.55	617.99	55.14	3.11	1478.66
2003	350.18	139.10	344.10	40.59	15.35	16.47	717.95	59.59	3.08	1689.79
2004	425.14	165.78	401.29	46.49	16.59	17.64	830.25	64.71	4.52	1976.78
2005	443.78	227.00	417.41	52.98	20.08	25.15	938.65	76.93	5.23	2211.51
2006	440.42	265.70	452.08	64.38	21.15	26.15	1079.86	82.90	4.18	2442.23

Table 4A.17.2. End Use Energy Consumption by Source (Shares)

Shares

Sum of	EBMaterial									
EBYear	Total Coal	Coke	Total Petroleum	Natural Gas	Coal Gas not Coke Source	Coke Oven Gas	Electricity	Heat	Other Energy	Grand Total
1980	49.9%	7.5%	16.2%	3.3%	0.0%	1.2%	20.1%	1.9%	0.0%	100%
1981	50.8%	6.9%	15.4%	2.9%	0.0%	1.2%	20.8%	2.0%	0.0%	100%
1982	51.6%	6.7%	14.9%	2.6%	0.0%	1.1%	21.1%	1.9%	0.0%	100%
1983	52.1%	6.5%	14.4%	2.5%	0.0%	1.2%	21.3%	1.8%	0.0%	100%
1984	52.7%	6.5%	14.2%	2.4%	0.0%	1.1%	21.3%	1.8%	0.0%	100%
1985	52.7%	6.4%	14.2%	2.3%	0.1%	1.0%	21.6%	1.8%	0.0%	100%
1986	51.3%	6.7%	14.4%	2.3%	0.1%	1.1%	22.2%	1.9%	0.0%	100%
1987	50.8%	6.8%	14.4%	2.1%	0.1%	0.9%	22.9%	1.9%	0.0%	100%
1988	50.4%	6.7%	14.4%	2.1%	0.1%	1.0%	23.6%	1.8%	0.0%	100%
1989	48.9%	6.8%	14.7%	2.0%	0.2%	1.0%	24.3%	2.0%	0.0%	100%
1990	47.0%	7.3%	14.6%	2.0%	0.2%	1.0%	25.6%	2.3%	0.0%	100%
1991	45.3%	7.1%	15.2%	2.1%	0.2%	1.1%	26.6%	2.4%	0.0%	100%
1992	43.0%	7.5%	15.5%	2.0%	0.2%	1.0%	28.3%	2.5%	0.0%	100%
1993	41.0%	7.8%	15.8%	1.9%	0.3%	1.1%	29.1%	2.9%	0.0%	100%
1994	39.6%	7.7%	15.6%	1.9%	0.3%	1.0%	30.7%	3.3%	0.0%	100%
1995	38.1%	8.3%	15.8%	1.8%	1.6%	1.0%	30.2%	2.9%	0.4%	100%
1996	37.4%	8.0%	16.7%	1.7%	1.3%	0.9%	30.9%	2.9%	0.1%	100%
1997	33.8%	8.1%	18.4%	1.7%	1.3%	1.0%	32.5%	3.0%	0.2%	100%
1998	31.1%	8.3%	19.4%	1.8%	1.2%	1.0%	33.8%	3.3%	0.1%	100%
1999	27.7%	7.8%	20.8%	1.9%	1.0%	1.0%	36.0%	3.5%	0.2%	100%
2000	25.1%	7.5%	21.4%	2.1%	1.0%	1.0%	38.0%	3.7%	0.2%	100%
2001	23.4%	7.6%	21.0%	2.3%	1.0%	1.0%	39.8%	3.7%	0.2%	100%
2002	20.6%	8.0%	21.3%	2.3%	0.9%	1.0%	41.9%	3.7%	0.2%	100%
2003	20.8%	8.2%	20.4%	2.4%	0.9%	1.0%	42.6%	3.5%	0.2%	100%
2004	21.6%	8.4%	20.3%	2.4%	0.8%	0.9%	42.1%	3.3%	0.2%	100%
2005	20.1%	10.3%	18.9%	2.4%	0.9%	1.1%	42.5%	3.5%	0.2%	100%
2006	18.1%	10.9%	18.6%	2.6%	0.9%	1.1%	44.3%	3.4%	0.2%	100%

Table 4A.18.1. Coal End Use and Inputs to Conversion

Million tonnes

EBMaterial Total Coal

Sum of EBPhase EBProcess															
Transformation						Transformation Total	Consumption								Consumption Total
							Non-								
EBYear	Thermal Power	Coking	Coal Washing [1]	Heating Supply	Gas Works		Agriculture	Industry	Construction	Transportatio n	Commercial Consumption	Residential Consumption	Material Sectors	Other	
1980	126.48	66.82	27.44		1.31	222.05	15.50	216.43	5.56	19.34	4.55	115.74	10.91		
1981	126.99	59.09	26.50		1.37	213.95	15.69	214.52	3.59	20.86	5.24	120.89	11.09		
1982	134.27	60.77	27.98		1.40	224.43	17.14	231.65	4.14	21.73	5.66	124.57	11.95		
1983	143.11	63.94	29.87		1.48	238.39	18.35	253.82	4.67	21.92	6.35	130.64	12.99		
1984	159.35	69.63	31.27		1.62	261.88	20.18	278.42	4.71	22.80	7.33	139.83	14.54		
1985	164.41	73.04	35.01	14.62	1.91	288.99	22.09	297.15	5.32	23.07	7.38	156.24	15.80		
1986	180.12	80.57	35.88	16.25	2.43	315.26	22.97	311.26	4.98	22.95	7.79	158.22	16.73		
1987	202.89	87.66	37.54	18.93	2.24	349.26	22.87	338.49	4.53	22.42	8.25	164.86	17.31		
1988	228.34	88.79	37.07	21.16	2.79	378.15	23.78	360.92	4.45	22.59	9.32	175.25	19.07		
1989	251.51	96.31	38.67	23.86	3.69	414.04	21.81	371.61	4.53	22.84	10.24	170.43	18.78		
1990	272.04	106.98	40.59	29.96	3.60	453.17	20.95	357.73	4.38	21.61	10.58	167.00	19.80		
1991	301.19	108.61	46.71	34.39	3.73	494.63	21.25	368.96	4.32	20.25	9.95	164.52		20.44	
1992	334.59	112.82	43.58	38.51	4.67	534.18	17.68	388.33	4.66	18.76	9.58	147.81		19.85	
1993	368.32	120.93	41.41	46.85	4.93	582.44	16.02	405.53	5.00	17.51	10.27	145.15		22.16	
1994	400.53	139.48	43.77	55.33	7.88	646.98	17.83	428.86	5.04	15.15	10.20	130.47		25.34	
1995	444.40	183.96	20.35	58.87	7.64	715.22	18.57	460.50	4.40	13.15	9.77	135.30		19.87	
1996	488.09	184.56	21.98	63.66	5.82	764.10	19.17	476.05	4.46	11.76	10.74	143.99		18.35	
1997	489.79	192.97	23.11	62.45	7.33	775.64	19.27	442.14	3.83	14.31	8.63	122.38		7.35	
1998	494.89	156.28	11.59	63.20	6.85	732.82	19.23	418.07	6.12	13.91	9.48	88.84		7.83	
1999	524.58	159.32	30.92	79.61	9.18	803.60	17.36	362.14	5.22	12.86	8.96	84.08		6.51	
2000	558.11	164.96	31.91	87.94	9.60	852.53	16.48	341.22	5.37	11.32	8.15	79.07		6.61	
2001	597.98	172.36	24.51	89.51	10.02	894.38	16.00	331.30	5.35	10.41	8.11	78.30		6.65	
2002	686.00	186.25	19.17	89.74	9.73	990.89	16.23	302.62	5.54	10.55	8.09	76.03		6.67	
2003	819.76	236.40	26.99	108.95	10.55	1202.66	16.83	359.81	5.77	10.67	8.60	81.75		7.01	
2004	919.62	253.50	36.34	115.47	13.16	1338.08	22.51	460.83	6.02	8.32	8.72	81.73		7.31	
2005	1032.63	316.67	45.82	135.42	12.77	1543.32	23.15	480.41	6.04	8.15	8.74	87.39		7.66	
2006	1187.64	374.50	52.79	145.61	12.57	1773.12	23.10	480.07	5.82	7.25	8.91	83.86		7.83	

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1985.

[1] The figure here is the net amount of Raw Coal consumption above the amount of Cleaned Coal output (loss). To view the amount of Raw Coal input, choose "Raw Coal" from the pull-down menu EBMaterial above the table.

Table 4A.18.2. Coal End Use and Inputs to Conversion (Mtce)

Mtce

EBMaterial	Total Coal
------------	------------

Sum of EBYear	EBPhase		EBProcess				Transformation Total	Consumption								Consumption Total
	Transformation															
	Thermal Power	Coking	Coal Washing [1]	Heating Supply	Gas Works	Agriculture		Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other		
1980	90.31	47.71	19.59		0.94	158.55	11.07	154.53	3.97	13.81	3.25	82.64	7.79	277.06		
1981	90.67	42.19	18.92		0.97	152.76	11.20	153.17	2.56	14.89	3.74	86.32	7.92	279.81		
1982	95.87	43.39	19.98		1.00	160.24	12.24	165.40	2.96	15.52	4.04	88.94	8.53	297.62		
1983	102.18	45.65	21.33		1.06	170.21	13.10	181.22	3.33	15.65	4.53	93.28	9.27	320.40		
1984	113.78	49.72	22.33		1.16	186.98	14.41	198.79	3.36	16.28	5.24	99.84	10.38	348.29		
1985	117.39	52.15	25.00	10.44	1.36	206.34	15.77	212.16	3.80	16.47	5.27	111.56	11.28	376.31		
1986	128.61	57.53	25.62	11.60	1.74	225.09	16.40	222.24	3.56	16.39	5.56	112.97	11.94	389.06		
1987	144.86	62.59	26.80	13.52	1.60	249.37	16.33	241.68	3.24	16.00	5.89	117.71	12.36	413.21		
1988	163.03	63.40	26.47	15.11	1.99	270.00	16.98	257.70	3.18	16.13	6.66	125.13	13.62	439.39		
1989	179.58	68.77	27.61	17.03	2.64	295.62	15.57	265.33	3.23	16.31	7.31	121.69	13.41	442.84		
1990	194.24	76.38	28.98	21.39	2.57	323.56	14.96	255.42	3.12	15.43	7.56	119.24	14.14	429.86		
1991	215.05	77.55	33.35	24.55	2.66	353.16	15.17	263.44	3.09	14.46	7.10	117.47		14.59	435.32	
1992	238.90	80.55	31.12	27.50	3.34	381.40	12.63	277.27	3.33	13.39	6.84	105.53		14.17	433.16	
1993	262.98	86.34	29.57	33.45	3.52	415.86	11.44	289.55	3.57	12.50	7.33	103.64		15.82	443.84	
1994	285.98	99.59	31.25	39.50	5.63	461.95	12.73	306.20	3.60	10.82	7.29	93.16		18.09	451.89	
1995	317.30	131.35	14.53	42.04	5.45	510.67	13.26	328.80	3.14	9.39	6.98	96.61		14.18	472.35	
1996	348.49	131.77	15.69	45.45	4.16	545.57	13.69	339.90	3.19	8.40	7.67	102.81		13.10	488.76	
1997	349.71	137.78	16.50	44.59	5.23	553.81	13.76	315.69	2.73	10.22	6.16	87.38		5.25	441.19	
1998	353.35	111.58	8.28	45.12	4.89	523.23	13.73	298.50	4.37	9.93	6.77	63.43		5.59	402.32	
1999	374.55	113.75	22.07	56.84	6.55	573.77	12.39	258.57	3.73	9.18	6.40	60.04		4.65	354.96	
2000	398.49	117.78	22.79	62.79	6.85	608.71	11.76	243.63	3.83	8.08	5.82	56.46		4.72	334.30	
2001	426.96	123.07	17.50	63.91	7.15	638.59	11.42	236.55	3.82	7.43	5.79	55.91		4.75	325.67	
2002	489.80	132.98	13.69	64.07	6.95	707.50	11.59	216.07	3.95	7.53	5.78	54.28		4.76	303.97	
2003	585.31	168.79	19.27	77.79	7.53	858.70	12.02	256.91	4.12	7.62	6.14	58.37		5.00	350.18	
2004	656.61	181.00	25.95	82.44	9.40	955.39	16.07	329.03	4.29	5.94	6.22	58.36		5.22	425.14	
2005	737.30	226.10	32.72	96.69	9.12	1,101.93	16.53	343.01	4.31	5.82	6.24	62.40		5.47	443.78	
2006	847.97	267.39	37.69	103.97	8.98	1,266.01	16.49	342.77	4.16	5.18	6.37	59.88		5.59	440.42	

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1985.

[1] The figure here is the net amount of Raw Coal consumption above the amount of Cleaned Coal output (loss). To view the amount of Raw Coal input, choose "Raw Coal" from the pull-down menu EBMaterial above the table.

Table 4A.19.1. Coke Oven Gas End Use and Inputs to Conversion

Billion cubic meters

EBMat Coke Oven Gas

Sum of EBYea	EBPhase		EBProcess								Consumption Total
	Transformation		Transformation Total	Consumption							
	Thermal Power	Heating Supply		Industry	Construction	Transportation	Commercial Consumption	Residential Consumption	Non-Material Sectors	Other	
1980	0.89		0.89	9.41				1.37			10.78
1981	0.86		0.86	9.64				1.43			11.07
1982	0.91		0.91	9.65				1.48			11.13
1983	0.98		0.98	10.77				1.49			12.26
1984	1.02		1.02	10.83				1.63			12.46
1985	0.93		0.93	10.90			0.02	0.48	0.22		11.62
1986	1.13	0.15	1.28	13.05			0.04	0.68	0.18		13.95
1987	0.89	2.15	3.04	11.35			0.05	0.70	0.18		12.28
1988	0.67	1.22	1.89	12.42			0.05	1.30	0.22		13.99
1989	0.71	0.67	1.38	13.14			0.04	1.88	0.22		15.28
1990	0.67	1.00	1.67	13.59			0.05	1.95	0.22		15.81
1991	0.82	0.51	1.33	15.05			0.05	2.40		0.28	17.78
1992	1.61	0.48	2.09	12.83			0.06	3.58		0.36	16.83
1993	0.51	0.61	1.11	15.15	0.11	0.01	0.06	3.55		0.63	19.51
1994	1.15	1.45	2.60	14.90		0.03	0.07	3.53		0.39	18.93
1995	0.84	0.27	1.11	17.43			0.08	2.22		0.37	20.09
1996	1.07	0.71	1.78	17.13	0.01		0.09	2.42		0.78	20.43
1997	1.26	1.02	2.28	17.68	0.01		0.25	4.01		0.34	22.29
1998	1.24	0.71	1.95	17.44	0.00		0.18	3.67		0.39	21.68
1999	0.93	0.77	1.70	17.16		0.00	0.18	3.51		0.31	21.17
2000	1.07	0.96	2.03	18.17		0.00	0.19	3.70		0.31	22.37
2001	1.06	0.70	1.77	19.11		0.00	0.20	3.54		0.31	23.16
2002	1.37	0.48	1.85	20.48		0.00	0.17	3.62		0.27	24.54
2003	1.14	0.47	1.61	23.40		0.00	0.20	3.91		0.27	27.78
2004	2.51	1.42	3.93	25.23			0.18	4.12		0.22	29.75
2005	3.58	1.69	5.27	37.38			0.29	4.42		0.32	42.41
2006	5.39	3.84	9.23	38.91			0.29	4.58		0.33	44.11

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1995.

Table 4A.19.2. Coke Oven Gas End Use and Inputs to Conversion (Mtce)

Mtce

EBMateCoke Oven Gas

Sum of EBYear	EBPhase		EBProcess								Consumption Total
	Transformation		Transformation Total	Consumption							
	Thermal Power	Heating Supply		Industry	Construction	Transportation	Commercial Consumption	Residential Consumption	Non-Material Sectors	Other	
1980	0.53		0.53	5.58				0.81			6.39
1981	0.51		0.51	5.72				0.85			6.56
1982	0.54		0.54	5.72				0.88			6.60
1983	0.58		0.58	6.39				0.88			7.27
1984	0.60		0.60	6.42				0.97			7.39
1985	0.55		0.55	6.46			0.01	0.28	0.13		6.89
1986	0.67	0.09	0.76	7.74			0.02	0.40	0.11		8.27
1987	0.53	1.27	1.80	6.73			0.03	0.42	0.11		7.28
1988	0.40	0.72	1.12	7.37			0.03	0.77	0.13		8.30
1989	0.42	0.40	0.82	7.79			0.02	1.11	0.13		9.06
1990	0.40	0.59	0.99	8.06			0.03	1.16	0.13		9.38
1991	0.49	0.30	0.79	8.92			0.03	1.42		0.17	10.54
1992	0.95	0.28	1.24	7.61			0.04	2.12		0.21	9.98
1993	0.30	0.36	0.66	8.98	0.06	0.00	0.04	2.10		0.37	11.57
1994	0.68	0.86	1.54	8.84		0.02	0.04	2.09		0.23	11.22
1995	0.50	0.16	0.66	10.34			0.05	1.32		0.22	11.91
1996	0.63	0.42	1.05	10.16	0.00		0.05	1.43		0.46	12.12
1997	0.75	0.60	1.35	10.48	0.00		0.15	2.38		0.20	13.22
1998	0.74	0.42	1.15	10.34	0.00		0.11	2.18		0.23	12.86
1999	0.55	0.46	1.01	10.18		0.00	0.11	2.08		0.19	12.55
2000	0.63	0.57	1.20	10.77		0.00	0.11	2.19		0.19	13.27
2001	0.63	0.42	1.05	11.33		0.00	0.12	2.10		0.18	13.73
2002	0.81	0.29	1.10	12.14		0.00	0.10	2.15		0.16	14.55
2003	0.67	0.28	0.95	13.88		0.00	0.12	2.32		0.16	16.47
2004	1.49	0.84	2.33	14.96			0.11	2.44		0.13	17.64
2005	2.12	1.00	3.13	22.16			0.17	2.62		0.19	25.15
2006	3.20	2.28	5.47	23.07			0.17	2.72		0.20	26.15

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1995.

Table 4A.19.3. Town Gas End Use and Inputs to Conversion

Billion cubic meters

EBMate Coal Gas not Coke Source

Sum of	EBPhase		EBProcess							Consumption Total	
	Transformation		Transformation Total	Consumption							
	EBYear	Thermal Power		Heating Supply	Industry	Construction	Transportation	Commercial Consumption	Residential Consumption		Non-Material Sectors
1985				1.24			0.02	0.85	0.03		2.14
1986	0.34	0.35	0.69	2.76			0.01	0.71	0.17		3.65
1987	0.28	0.16	0.44	2.72			0.01	1.00	0.18		3.91
1988	0.19	0.04	0.23	3.91			0.10	0.42	0.11		4.54
1989	0.01	0.02	0.03	4.94			0.15	0.84	0.03		5.96
1990	0.13	0.01	0.14	4.79			0.19	0.92	0.01		5.91
1991	0.96	0.61	1.57	4.73			0.21	1.24		0.01	6.19
1992	0.62	0.25	0.87	6.14			0.21	1.58		0.02	7.95
1993	0.16	0.03	0.20	9.18	0.02	0.12	0.17	1.87		0.31	11.67
1994	0.50	1.68	2.18	8.77				4.04		0.26	13.07
1995	3.40	1.81	5.21	65.36			0.00	3.45		0.29	69.10
1996	7.41	1.77	9.18	58.50		0.00	0.01	2.35		0.30	61.15
1997	3.09	1.30	4.38	54.43		0.00	0.12	5.98		0.32	60.85
1998	5.04	4.26	9.29	43.86			0.20	7.41		0.18	51.64
1999	6.56	3.37	9.94	36.05		0.02	0.29	8.14		0.11	44.62
2000	7.00	3.49	10.50	37.50		0.02	0.26	8.95		0.11	46.84
2001	8.40	4.01	12.41	39.08		0.03	0.30	8.36		0.12	47.88
2002	8.94	3.46	12.39	38.96		0.02	0.39	8.96			48.32
2003	10.03	3.66	13.69	43.63		0.03	0.44	9.20			53.31
2004	11.58	7.98	19.56	47.25		0.02	0.64	9.69			57.61
2005	13.09	7.82	20.90	59.04		0.02	0.60	10.06			69.72
2006	13.09	7.82	20.90	61.71		0.03	0.65	11.06			73.44

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1995.

Starting in 1995, the energy balance begins recording production of Town Gas as "Recovery of Energy" in addition to Gas Works and Coking plant production.

Table 4A.19.4. Town Gas End Use and Inputs to Conversion (Mtce)

Mtce

EBMaterial Coal Gas not Coke Source

Sum of	EBProcess									
	Transformation		Transformation Total	Consumption						Consumption Total
	Thermal Power	Heating Supply		Industry	Construction	Transportation	Commercial Consumption	Residential Consumption	Non-Material Sectors	
EBYear										
1985				0.36			0.01	0.24	0.01	0.62
1986	0.10	0.10	0.20	0.79			0.00	0.20	0.05	1.05
1987	0.08	0.05	0.13	0.78			0.00	0.29	0.05	1.13
1988	0.05	0.01	0.07	1.13			0.03	0.12	0.03	1.31
1989	0.00	0.01	0.01	1.42			0.04	0.24	0.01	1.72
1990	0.04	0.00	0.04	1.38			0.05	0.26	0.00	1.70
1991	0.28	0.18	0.45	1.36			0.06	0.36	0.00	1.78
1992	0.18	0.07	0.25	1.77			0.06	0.46	0.01	2.29
1993	0.05	0.01	0.06	2.64	0.01	0.04	0.05	0.54	0.09	3.36
1994	0.14	0.48	0.63	2.52				1.16	0.08	3.76
1995	0.98	0.52	1.50	18.82			0.00	0.99	0.08	19.90
1996	2.13	0.51	2.64	16.85		0.00	0.00	0.68	0.09	17.61
1997	0.89	0.37	1.26	15.67		0.00	0.03	1.72	0.09	17.52
1998	1.45	1.23	2.68	12.63			0.06	2.13	0.05	14.87
1999	1.89	0.97	2.86	10.38		0.01	0.08	2.35	0.03	12.85
2000	2.02	1.01	3.02	10.80		0.01	0.08	2.58	0.03	13.49
2001	2.42	1.16	3.58	11.25		0.01	0.09	2.41	0.04	13.79
2002	2.57	1.00	3.57	11.22		0.01	0.11	2.58		13.92
2003	2.89	1.05	3.94	12.57		0.01	0.13	2.65		15.35
2004	3.34	2.30	5.63	13.61		0.01	0.19	2.79		16.59
2005	3.77	2.25	6.02	17.00		0.01	0.17	2.90		20.08
2006	3.77	2.25	6.02	17.77		0.01	0.19	3.18		21.15

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1995.

Starting in 1995, the energy balance begins recording production of Town Gas as "Recovery of Energy" in addition to Gas Works and Coking plant production.

Table 4A.20.1. Total Petroleum and Inputs to Conversion by Sector

Million tonnes

EBMater Total Petroleum

Sum of E	EBPhase			EBProcess										Consumption Total
	Transformation			Transformation Total	Consumption									
	Thermal Power	Heating Supply	Petroleum Refineries		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other		
EBYear	Thermal Power	Heating Supply	Petroleum Refineries	Transformation Total	Agriculture	Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other	Consumption Total	
1980	20.65		0.82	21.47	8.15	37.80	1.75	8.88	0.29	1.42	4.81		63.11	
1981	20.12		0.69	20.81	7.76	35.18	1.70	8.41	0.34	1.61	4.37		59.38	
1982	18.73		0.60	19.33	7.26	35.59	1.80	9.15	0.37	1.49	4.25		59.91	
1983	18.06		0.73	18.78	7.42	35.84	2.11	9.82	0.39	1.85	4.58		62.01	
1984	17.60		0.67	18.27	8.00	37.57	2.38	10.55	0.39	2.09	4.47		65.45	
1985	14.26	2.86	1.13	18.24	7.59	40.91	2.92	11.52	0.38	2.26	5.05		70.63	
1986	13.59	3.21	1.47	18.27	8.18	43.29	3.03	13.48	0.50	2.64	5.15		76.27	
1987	13.75	2.84	1.72	18.31	8.84	46.06	3.90	14.49	0.60	2.72	5.55		82.16	
1988	15.13	3.23	1.81	20.17	9.29	49.45	3.23	15.30	0.83	2.77	6.89		87.75	
1989	14.46	3.40	1.82	19.68	9.69	52.45	3.28	16.04	0.92	2.96	7.91		93.24	
1990	12.34	3.56	2.96	18.87	10.34	51.80	3.27	16.44	0.78	2.85	7.58		93.05	
1991	12.71	3.37	2.91	18.98	10.68	55.47	3.61	18.34	0.87	3.23		9.64	101.83	
1992	13.00	3.35	5.15	21.49	10.73	57.21	3.96	20.40	1.40	3.61		11.68	108.98	
1993	16.01	5.07	3.47	24.54	10.64	61.14	2.57	22.52	3.26	4.21		15.41	119.74	
1994	11.78	5.60	4.46	21.84	10.89	66.92	2.42	23.50	2.27	5.25		13.41	124.66	
1995	13.58	4.00	4.20	21.78	12.03	70.95	2.43	27.29	3.34	6.82		13.90	136.76	
1996	12.39	4.05	2.71	19.14	12.24	80.22	2.58	28.01	3.68	8.77		17.52	153.02	
1997	16.62	3.56	3.82	24.01	12.56	85.32	2.85	35.83	4.17	9.38		17.58	167.70	
1998	13.05	4.56	3.10	20.71	12.95	87.17	2.94	40.94	4.26	9.83		17.05	175.14	
1999	12.29	3.95	5.67	21.90	14.22	81.72	7.47	48.53	5.37	11.33		18.00	186.65	
2000	11.78	4.27	7.22	23.27	14.97	85.30	8.31	53.52	5.45	12.56		18.83	198.94	
2001	12.14	4.39	6.17	22.69	15.68	84.98	9.34	55.40	5.67	12.95		19.54	203.57	
2002	12.76	4.21	8.92	25.88	16.74	91.68	10.97	60.02	5.93	14.77		19.79	219.90	
2003	14.92	4.18	9.71	28.80	16.81	99.59	12.31	69.58	6.82	16.36		19.16	240.63	
2004	18.64	4.18	11.95	34.78	20.01	113.44	14.22	84.96	8.19	17.78		22.02	280.62	
2005	16.02	4.08	11.67	31.76	20.73	112.45	15.02	95.80	9.16	17.94		20.79	291.89	
2006	13.44	4.28	12.77	30.49	22.14	118.75	16.49	108.04	9.92	19.93		20.88	316.14	

Oil use in Petroleum Refineries reflects the difference between crude input and total petroleum product output (i.e. losses).

Table 4A.20.2. Total Petroleum and Inputs to Conversion by Sector (Mtce)

Mtce

EBMatcTotal Petroleum

Sum of EBYear	EBPhase		EBProcess		Transformation Total	Consumption								Consumption Total
	Transformation			Consumption										
	Thermal Power	Heating Supply	Petroleum Refineries	Agriculture		Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other		
1980	29.54		1.17	30.70	11.65	54.06	2.51	12.70	0.41	2.03	6.88		90.25	
1981	28.77		0.99	29.76	11.10	50.31	2.43	12.02	0.49	2.30	6.25		84.91	
1982	26.79		0.85	27.64	10.38	50.89	2.57	13.08	0.53	2.13	6.08		85.67	
1983	25.82		1.04	26.86	10.61	51.25	3.01	14.04	0.56	2.65	6.55		88.67	
1984	25.16		0.96	26.12	11.43	53.73	3.40	15.09	0.56	2.99	6.39		93.59	
1985	20.38	4.08	1.61	26.08	10.85	58.50	4.18	16.48	0.54	3.23	7.22		101.01	
1986	19.43	4.59	2.11	26.13	11.70	61.91	4.33	19.27	0.72	3.78	7.36		109.06	
1987	19.66	4.06	2.46	26.18	12.63	65.87	5.57	20.73	0.86	3.90	7.94		117.49	
1988	21.63	4.62	2.59	28.84	13.28	70.71	4.61	21.87	1.19	3.95	9.85		125.48	
1989	20.68	4.85	2.60	28.14	13.86	75.00	4.68	22.94	1.32	4.23	11.31		133.33	
1990	17.65	5.10	4.23	26.98	14.78	74.08	4.68	23.50	1.11	4.07	10.84		133.06	
1991	18.17	4.82	4.15	27.15	15.28	79.32	5.17	26.23	1.24	4.62		13.78	145.62	
1992	18.59	4.79	7.36	30.73	15.34	81.81	5.66	29.17	2.00	5.16		16.70	155.83	
1993	22.90	7.24	4.96	35.10	15.21	87.43	3.67	32.20	4.67	6.01		22.04	171.23	
1994	16.85	8.01	6.37	31.23	15.57	95.69	3.46	33.61	3.25	7.50		19.18	178.27	
1995	19.43	5.72	6.01	31.15	17.21	101.47	3.47	39.02	4.77	9.75		19.88	195.57	
1996	17.71	5.79	3.88	27.38	17.50	114.72	3.69	40.06	5.26	12.54		25.06	218.82	
1997	23.77	5.10	5.46	34.33	17.97	122.01	4.08	51.24	5.96	13.42		25.14	239.81	
1998	18.66	6.51	4.44	29.61	18.51	124.66	4.20	58.55	6.09	14.06		24.38	250.45	
1999	17.57	5.64	8.10	31.31	20.34	116.86	10.69	69.39	7.68	16.20		25.74	266.90	
2000	16.85	6.11	10.32	33.28	21.41	121.98	11.88	76.53	7.79	17.97		26.92	284.48	
2001	17.35	6.27	8.82	32.45	22.43	121.53	13.35	79.23	8.11	18.52		27.94	291.10	
2002	18.24	6.02	12.75	37.01	23.94	131.11	15.68	85.83	8.48	21.13		28.29	314.45	
2003	21.33	5.98	13.88	41.19	24.04	142.41	17.60	99.50	9.76	23.39		27.40	344.10	
2004	26.66	5.98	17.09	49.73	28.62	162.22	20.34	121.49	11.71	25.43		31.48	401.29	
2005	22.91	5.83	16.68	45.42	29.64	160.80	21.48	136.99	13.09	25.66		29.73	417.41	
2006	19.21	6.12	18.27	43.60	31.65	169.82	23.57	154.50	14.19	28.49		29.85	452.08	

Oil use in Petroleum Refineries reflects the difference between crude input and total petroleum product output (i.e. losses).

Table 4A.21.1. Total Petroleum Product and Inputs to Conversion (Excluding Refining) by Product

End Use and Inputs to Conversion

Million Tonnes

Sum of E	EBPhase EBMaterial EBProcess													Transformation Total
	Transformation													
	Diesel Oil		Fuel Oil		Gasoline		Kerosene	Liquid Petroleum Gas		Petroleum Other Products		Refinery Gas		
EBYear	Thermal Power	Heating Supply	Thermal Power	Heating Supply	Thermal Power	Heating Supply	Thermal Power	Thermal Power	Heating Supply	Thermal Power	Heating Supply	Thermal Power	Heating Supply	
1980		0.72		14.19										14.91
1981		1.21		13.50										14.71
1982		0.73		13.21										13.93
1983		0.55		13.56										14.10
1984		0.70		13.55										14.25
1985		1.04	0.05	10.42	2.19			0.00						13.70
1986		0.59	0.01	10.46	2.52			0.00		0.05	0.01	0.03	0.02	13.69
1987		0.92	0.00	10.19	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	13.76
1988		1.96	0.00	10.73	2.76	0.00	0.00	0.01	0.01		0.26	0.09	0.07	15.89
1989		2.24	0.00	10.47	2.92	0.00		0.02	0.03	0.00	0.19	0.09	0.03	15.99
1990		1.25	0.02	9.77	3.08	0.00		0.01	0.02	0.00		0.07	0.23	14.45
1991		2.14	0.03	9.47	3.03	0.00		0.01	0.03	0.00		0.12	0.19	15.01
1992		3.40	0.02	8.53	3.19	0.00		0.00				0.11		15.25
1993		2.91	0.68	12.03	4.01	0.00		0.01	0.01			0.11	0.32	20.09
1994		2.01	0.67	8.93	4.37	0.00		0.00	0.01			0.19	0.47	16.66
1995		2.05	0.47	10.72	3.08	0.00		0.00	0.00			0.20	0.41	16.92
1996		2.53	0.30	8.89	2.97	0.01		0.04	0.03			0.24	0.64	15.64
1997		7.39	0.03	8.39	2.82	0.01		0.01				0.18	0.57	19.39
1998		2.04		9.94	3.43	0.01		0.03				0.29	0.88	16.61
1999		2.15		9.06	3.01	0.01	0.00	0.02				0.24	0.80	15.30
2000		2.28		8.14	2.91	0.01	0.00	0.02		0.23	0.20	0.25	1.02	15.06
2001		2.40		8.39	3.00	0.01	0.00	0.01		0.28	0.27	0.23	1.00	15.58
2002		2.26		9.13	2.67	0.01	0.00	0.02		0.36	0.28	0.20	1.13	16.05
2003		2.71		10.57	2.61	0.00	0.00	0.02		0.51	0.26	0.17	1.20	18.05
2004		3.35		14.29	2.13	0.00	0.00	0.02	0.07	0.49	0.70	0.30	1.27	22.64
2005		3.67		11.06	1.72	0.01	0.00	0.00	0.03	0.71	1.49	0.37	0.83	19.88
2006		3.13		9.28	1.59	0.00	0.00	0.00	0.05	0.45	1.33	0.35	1.29	17.48

(continued)

N.B. Heating Supply consumption was included in Thermal Power prior to 1985.

Table 4A.21.1. Total Petroleum Product and Inputs to Conversion (Excluding Refining) by Product

End Use and Inputs to Conversion

Million Tonnes

Consumption							Consumption Total
Diesel Oil	Fuel Oil	Gasoline	Kerosene	Liquid Petroleum Gas	Petroleum Other Products	Refinery Gas	
Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	
15.91	16.18	9.99	3.66	1.19	11.19		58.11
15.24	14.62	9.40	3.47	1.08	10.96		54.78
15.15	14.52	9.93	3.41	1.20	11.42		55.62
15.92	14.63	10.95	3.68	1.45	11.58		58.21
16.83	14.85	12.00	3.84	1.47	12.63		61.61
18.27	15.39	13.91	3.85	1.55	12.03	2.13	67.13
20.57	16.72	15.00	3.86	2.00	11.72	2.33	72.19
22.21	18.09	16.24	3.82	2.12	13.22	2.44	78.15
23.79	18.52	17.90	3.58	2.29	14.72	2.43	83.22
25.24	20.10	18.53	3.61	2.44	15.64	2.58	88.13
25.65	20.43	18.99	3.51	2.50	15.45	2.50	89.03
27.58	22.14	22.09	3.85	2.98	16.88	2.78	98.30
30.31	22.01	25.09	4.18	3.57	17.71	2.92	105.80
35.89	21.50	28.88	4.26	4.97	16.99	3.36	115.85
35.34	21.96	26.96	4.52	5.68	22.73	3.12	120.33
40.70	22.63	29.09	5.12	7.49	24.98	3.65	133.66
44.09	23.21	31.82	5.56	9.23	30.60	3.62	148.10
45.49	26.51	33.11	6.82	10.07	37.13	4.64	163.77
50.79	24.56	33.28	6.71	11.82	38.52	4.28	169.96
60.16	26.94	33.80	8.24	12.05	35.22	5.05	181.45
65.47	27.41	35.04	8.70	13.63	36.71	5.62	192.57
68.67	26.89	35.97	8.90	14.09	36.91	5.59	197.03
74.41	26.76	37.49	9.19	16.22	43.32	5.70	213.09
81.38	28.82	40.72	9.22	17.94	48.57	5.86	232.51
95.60	31.30	46.95	10.61	20.06	60.96	6.69	272.17
106.06	29.50	48.53	10.77	20.41	60.02	7.91	283.19
115.23	32.68	52.42	11.25	22.01	64.60	8.18	306.37

(continued)

Table 4A.21.2. Total Petroleum Product and Inputs to Conversion (Excluding Refining) by Product (Mtce)

End Use and Inputs to Conversion

Mtce

Sum of EBYear	EBPhase EBMaterial EBProcess													Transformation Total
	Transformation													
	Diesel Oil		Fuel Oil		Gasoline		Kerosene	Liquid Petroleum Gas		Petroleum Other Products		Refinery Gas		
	Thermal Power	Heating Supply	Thermal Power	Heating Supply	Thermal Power	Heating Supply	Thermal Power	Thermal Power	Heating Supply	Thermal Power	Heating Supply	Thermal Power	Heating Supply	
1980	1.05		20.28											21.33
1981	1.76		19.30											21.05
1982	1.06		18.87											19.93
1983	0.80		19.37											20.17
1984	1.02		19.36											20.38
1985	1.51	0.07	14.89	3.13				0.00						19.61
1986	0.86	0.02	14.95	3.60				0.00		0.07	0.01	0.05	0.02	19.57
1987	1.34	0.01	14.56	3.66	0.00		0.00	0.01	0.00	0.00	0.01	0.07	0.04	19.70
1988	2.85	0.00	15.33	3.95	0.00			0.01	0.02		0.34	0.15	0.10	22.76
1989	3.26	0.01	14.96	4.17	0.00			0.04	0.04	0.00	0.25	0.14	0.04	22.93
1990	1.81	0.03	13.97	4.41	0.00			0.02	0.03	0.00		0.10	0.36	20.73
1991	3.12	0.04	13.53	4.33	0.00			0.01	0.04	0.00		0.18	0.30	21.56
1992	4.95	0.03	12.19	4.56	0.01			0.01				0.16		21.91
1993	4.24	0.99	17.20	5.73	0.00			0.02	0.02			0.17	0.50	28.87
1994	2.93	0.98	12.76	6.24	0.00			0.01	0.02			0.30	0.74	23.99
1995	2.98	0.68	15.31	4.40	0.00			0.00	0.00			0.31	0.64	24.34
1996	3.69	0.44	12.70	4.25	0.01			0.07	0.05			0.37	1.00	22.58
1997	10.77	0.04	11.99	4.03	0.01			0.02				0.28	0.89	28.03
1998	2.97		14.20	4.90	0.01			0.05				0.46	1.38	23.97
1999	3.14		12.95	4.31	0.01	0.00		0.03				0.37	1.26	22.08
2000	3.32		11.64	4.16	0.01	0.00		0.03		0.31	0.26	0.39	1.60	21.72
2001	3.50		11.98	4.28	0.01	0.00		0.02		0.37	0.35	0.36	1.57	22.45
2002	3.29		13.04	3.81	0.01	0.00		0.03		0.47	0.37	0.32	1.78	23.12
2003	3.95		15.10	3.73	0.01	0.00		0.03		0.66	0.34	0.27	1.89	25.97
2004	4.88		20.42	3.05	0.00	0.00		0.04	0.12	0.64	0.92	0.48	2.00	32.56
2005	5.34		15.81	2.45	0.01	0.00		0.00	0.05	0.92	1.95	0.57	1.31	28.43
2006	4.56		13.26	2.27	0.00	0.00		0.00	0.09	0.59	1.75	0.54	2.03	25.10

(continued)

N.B. Heating Supply consumption was included in Thermal Power prior to 1985.

Table 4A.21.2. Total Petroleum Product and Inputs to Conversion (Excluding Refining) by Product (Mtce)

End Use and Inputs to Conversion

Mtce

Consumption							Consumption Total
Diesel Oil	Fuel Oil	Gasoline	Kerosene	Liquid Petroleum Gas	Petroleum Other Products	Refinery Gas	
Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	Consumption	
23.18	23.12	14.69	5.38	2.04	14.66		83.07
22.21	20.89	13.83	5.10	1.86	14.36		78.25
22.07	20.74	14.61	5.02	2.06	14.96		79.45
23.20	20.91	16.11	5.41	2.48	15.17		83.28
24.52	21.21	17.65	5.65	2.51	16.55		88.09
26.63	21.99	20.47	5.66	2.65	15.76	3.35	96.50
29.96	23.90	22.07	5.67	3.43	15.35	3.65	104.04
32.36	25.86	23.89	5.62	3.64	17.32	3.83	112.52
34.66	26.46	26.33	5.27	3.92	19.28	3.81	119.73
36.77	28.72	27.26	5.31	4.18	20.48	4.05	126.77
37.37	29.19	27.94	5.16	4.29	20.24	3.93	128.11
40.19	31.64	32.50	5.66	5.10	22.12	4.36	141.56
44.17	31.46	36.91	6.15	6.12	23.20	4.59	152.59
52.29	30.72	42.48	6.27	8.52	22.26	5.27	167.81
51.50	31.39	39.67	6.65	9.74	29.78	4.90	173.62
59.30	32.33	42.80	7.53	12.83	32.73	5.74	193.26
64.23	33.16	46.80	8.17	15.82	40.08	5.68	213.94
66.28	37.88	48.71	10.03	17.26	48.64	7.29	236.09
74.00	35.10	48.95	9.88	20.25	50.46	6.72	245.36
87.66	38.50	49.71	12.12	20.65	46.13	7.93	262.71
95.38	39.17	51.54	12.79	23.36	48.09	8.82	279.16
100.06	38.43	52.91	13.10	24.14	48.36	8.78	285.78
108.42	38.23	55.15	13.52	27.80	56.74	8.95	308.82
118.58	41.18	59.89	13.56	30.75	63.63	9.21	336.79
139.29	44.73	69.07	15.61	34.38	79.86	10.50	393.44
154.53	42.15	71.38	15.84	34.98	78.63	12.43	409.93
167.89	46.70	77.10	16.54	37.72	84.63	12.86	443.45

(continued)

Table 4A.22.1. Crude Oil End Use and Inputs to Conversion

Million tonnes

EBMaterial Crude Oil

Sum of E	EBPhase										Consumption Total
	Transformation		Transformation Total	Consumption							
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Non-Material Sectors	Other	
EBYear											
1980	5.74		5.74	0.08	4.30	0.29	0.27		0.06		5.00
1981	5.41		5.41	0.07	3.86	0.33	0.29	0.00	0.05		4.60
1982	4.80		4.80	0.05	3.63	0.33	0.27	0.00	0.01		4.29
1983	3.96		3.96	0.00	3.19	0.42	0.19	0.00	0.00		3.80
1984	3.35		3.35	0.00	3.01	0.50	0.32	0.00	0.00		3.84
1985	2.80	0.61	3.41	0.01	2.55	0.74	0.20	0.00	0.00		3.50
1986	2.46	0.65	3.11	0.01	3.18	0.57	0.32	0.00	0.00		4.07
1987	2.59	0.24	2.83	0.01	2.75	0.99	0.23	0.00	0.03		4.02
1988	2.34	0.13	2.47	0.01	3.66	0.64	0.22	0.00	0.00		4.53
1989	1.63	0.23	1.86	0.01	4.39	0.51	0.18	0.01	0.01		5.11
1990	1.25	0.21	1.46	0.00	3.33	0.55	0.12	0.00	0.01		4.02
1991	0.97	0.10	1.07		2.90	0.52	0.12	0.00			3.54
1992	0.95	0.14	1.09		2.51	0.54	0.12	0.00			3.17
1993	0.95	0.05	0.99		3.55	0.13	0.21	0.00		0.00	3.90
1994	0.65	0.07	0.72		4.04	0.05	0.24	0.00		0.00	4.33
1995	0.62	0.04	0.66	0.10	2.75	0.03	0.22	0.01			3.10
1996	0.68	0.11	0.79	0.11	4.53	0.03	0.24	0.00		0.01	4.92
1997	0.64	0.15	0.79		4.71	0.03	0.17	0.00		0.01	4.92
1998	0.74	0.24	0.99		4.95	0.02	0.19	0.00		0.01	5.19
1999	0.80	0.13	0.93		4.95	0.03	0.19	0.00		0.01	5.19
2000	0.85	0.14	0.99		6.12	0.03	0.20	0.00		0.01	6.37
2001	0.82	0.12	0.94		6.31	0.03	0.19	0.00		0.01	6.54
2002	0.78	0.13	0.91		6.58	0.04	0.18	0.00		0.01	6.81
2003	0.94	0.11	1.05		7.93	0.04	0.14	0.00		0.01	8.12
2004	0.18	0.00	0.18		8.45						8.45
2005	0.21	0.00	0.22		8.70						8.70
2006	0.23	0.01	0.24		9.77						9.77

Table 4A.22.2. Crude Oil End Use and Inputs to Conversion (Mtce)

Mtce

EBMaterial	Crude Oil
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Sum of E	EBProcess										Consumption Total
	Transformation		Transformation Total	Consumption							
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Non-Material Sectors	Other	
EBYear											
1980	8.20		8.20	0.11	6.14	0.41	0.39		0.09		7.14
1981	7.73		7.73	0.10	5.51	0.47	0.41	0.00	0.08		6.57
1982	6.86		6.86	0.07	5.18	0.47	0.39	0.00	0.01		6.12
1983	5.65		5.65	0.00	4.56	0.59	0.26	0.00	0.01		5.43
1984	4.79		4.79	0.00	4.30	0.72	0.46	0.00	0.00		5.48
1985	3.99	0.88	4.87	0.01	3.64	1.06	0.29	0.00	0.01		5.01
1986	3.51	0.93	4.45	0.01	4.54	0.81	0.46	0.00	0.00		5.82
1987	3.70	0.35	4.05	0.01	3.93	1.41	0.33	0.01	0.05		5.74
1988	3.35	0.18	3.53	0.01	5.23	0.92	0.31	0.00	0.00		6.47
1989	2.33	0.33	2.66	0.01	6.28	0.73	0.26	0.01	0.02		7.30
1990	1.78	0.30	2.08	0.00	4.76	0.79	0.18	0.00	0.01		5.75
1991	1.38	0.15	1.53		4.15	0.74	0.17	0.01			5.06
1992	1.36	0.20	1.56		3.58	0.78	0.17	0.00			4.53
1993	1.35	0.07	1.42		5.08	0.18	0.30	0.01		0.00	5.57
1994	0.93	0.10	1.03		5.78	0.06	0.34	0.00		0.00	6.19
1995	0.88	0.06	0.94	0.14	3.92	0.04	0.31	0.01			4.43
1996	0.97	0.15	1.13	0.16	6.47	0.04	0.35	0.01		0.02	7.03
1997	0.92	0.21	1.13		6.73	0.04	0.24	0.00		0.02	7.04
1998	1.06	0.35	1.41		7.08	0.03	0.28	0.00		0.02	7.41
1999	1.15	0.18	1.33		7.08	0.05	0.28	0.00		0.02	7.42
2000	1.21	0.20	1.41		8.75	0.05	0.28	0.00		0.02	9.10
2001	1.17	0.18	1.34		9.01	0.05	0.27	0.00		0.02	9.35
2002	1.12	0.18	1.30		9.40	0.06	0.25	0.00		0.02	9.74
2003	1.34	0.16	1.50		11.33	0.06	0.20	0.00		0.02	11.61
2004	0.26	0.00	0.26		12.07						12.07
2005	0.30	0.00	0.31		12.44						12.44
2006	0.33	0.01	0.34		13.96						13.96

Table 4A.23.1. Diesel Oil End Use and Inputs to Conversion

Million Tonnes

EBMaterial	Diesel Oil
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Sum of E	EBPhase		EBProcess									Consumption Total
	Transformation		Transformation Total	Consumption								
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other	
1980	0.72		0.72	7.49	3.85	0.77	3.16	0.07		0.58		15.91
1981	1.21		1.21	7.05	3.77	0.73	3.03	0.12		0.55		15.24
1982	0.73		0.73	6.54	3.97	0.79	3.31	0.10		0.43		15.15
1983	0.55		0.55	6.65	3.95	0.95	3.66	0.11		0.60		15.92
1984	0.70		0.70	7.05	4.20	1.07	3.91	0.10		0.50		16.83
1985	1.04	0.05	1.09	6.29	5.32	1.25	4.54	0.11	0.02	0.74		18.27
1986	0.59	0.01	0.60	6.71	5.75	1.50	5.81	0.16	0.02	0.61		20.57
1987	0.92	0.00	0.93	7.30	5.84	1.55	6.50	0.22	0.03	0.78		22.21
1988	1.96	0.00	1.96	7.67	5.63	1.42	6.90	0.32	0.06	1.78		23.79
1989	2.24	0.00	2.24	8.26	5.72	1.47	7.21	0.38	0.01	2.19		25.24
1990	1.25	0.02	1.27	8.82	6.01	1.33	7.09	0.23	0.00	2.17		25.65
1991	2.14	0.03	2.17	8.93	6.35	1.51	7.60	0.26	0.00		2.93	27.58
1992	3.40	0.02	3.42	8.86	7.03	1.70	8.28	0.84	0.02		3.60	30.31
1993	2.91	0.68	3.59	9.19	8.53	1.03	10.02	1.32	0.08		5.72	35.89
1994	2.01	0.67	2.69	9.34	8.31	1.12	9.98	0.83	0.10		5.65	35.34
1995	2.05	0.47	2.51	10.01	9.38	1.18	12.47	1.04	0.16		6.46	40.70
1996	2.53	0.30	2.83	10.28	10.74	1.30	12.61	1.25	0.22		7.68	44.09
1997	7.39	0.03	7.42	10.76	9.88	1.46	13.80	1.46	0.39		7.74	45.49
1998	2.04		2.04	11.20	11.42	1.53	19.02	1.53	0.44		5.64	50.79
1999	2.15		2.15	12.42	12.91	1.78	22.22	2.61	0.63		7.60	60.16
2000	2.28		2.28	13.10	13.69	1.96	25.44	2.56	0.68		8.04	65.47
2001	2.40		2.40	13.76	13.96	2.23	26.71	2.68	0.79		8.54	68.67
2002	2.26		2.26	14.84	15.05	2.52	29.65	2.81	0.84		8.70	74.41
2003	2.71		2.71	14.84	15.59	2.76	34.85	3.56	0.88		8.90	81.38
2004	3.35		3.35	17.74	16.70	3.33	41.82	4.19	1.14		10.68	95.60
2005	3.67		3.67	18.38	17.25	3.87	50.19	4.86	1.36		10.15	106.06
2006	3.13		3.13	19.65	16.49	4.29	57.47	5.30	1.71		10.33	115.23

Table 4A.23.2. Diesel Oil End Use and Inputs to Conversion (Mtce)

Mtce

EBMate	Diesel Oil
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Sum of	EBPhase		EBProcess									Consumption Total
	Transformation		Transformation Total	Consumption								
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other	
EBYear												
1980	1.05		1.05	10.91	5.61	1.11	4.61	0.09		0.84		23.18
1981	1.76		1.76	10.27	5.49	1.06	4.42	0.17		0.80		22.21
1982	1.06		1.06	9.53	5.78	1.16	4.82	0.15		0.62		22.07
1983	0.80		0.80	9.69	5.76	1.38	5.33	0.17		0.88		23.20
1984	1.02		1.02	10.27	6.11	1.56	5.69	0.15		0.73		24.52
1985	1.51	0.07	1.58	9.17	7.75	1.82	6.62	0.16	0.03	1.08		26.63
1986	0.86	0.02	0.88	9.78	8.38	2.19	8.46	0.23	0.03	0.89		29.96
1987	1.34	0.01	1.35	10.63	8.51	2.26	9.47	0.32	0.04	1.14		32.36
1988	2.85	0.00	2.86	11.18	8.21	2.07	10.05	0.46	0.09	2.60		34.66
1989	3.26	0.01	3.27	12.03	8.33	2.14	10.50	0.55	0.02	3.19		36.77
1990	1.81	0.03	1.85	12.84	8.76	1.94	10.34	0.33	0.00	3.16		37.37
1991	3.12	0.04	3.16	13.02	9.25	2.20	11.07	0.37	0.01		4.27	40.19
1992	4.95	0.03	4.98	12.90	10.25	2.48	12.06	1.22	0.03		5.24	44.17
1993	4.24	0.99	5.23	13.39	12.43	1.50	14.60	1.92	0.11		8.33	52.29
1994	2.93	0.98	3.91	13.61	12.11	1.64	14.54	1.22	0.15		8.24	51.50
1995	2.98	0.68	3.66	14.59	13.67	1.72	18.16	1.51	0.24		9.41	59.30
1996	3.69	0.44	4.13	14.98	15.65	1.89	18.37	1.83	0.32		11.19	64.23
1997	10.77	0.04	10.81	15.67	14.40	2.13	20.10	2.13	0.57		11.28	66.28
1998	2.97		2.97	16.32	16.64	2.23	27.71	2.23	0.64		8.22	74.00
1999	3.14		3.14	18.09	18.82	2.59	32.37	3.80	0.91		11.07	87.66
2000	3.32		3.32	19.09	19.94	2.85	37.06	3.73	1.00		11.71	95.38
2001	3.50		3.50	20.04	20.35	3.25	38.92	3.91	1.15		12.44	100.06
2002	3.29		3.29	21.63	21.93	3.67	43.20	4.09	1.22		12.68	108.42
2003	3.95		3.95	21.63	22.72	4.02	50.78	5.18	1.28		12.97	118.58
2004	4.88		4.88	25.85	24.33	4.85	60.94	6.10	1.66		15.56	139.29
2005	5.34		5.34	26.77	25.13	5.63	73.13	7.08	1.99		14.79	154.53
2006	4.56		4.56	28.63	24.02	6.25	83.74	7.72	2.49		15.05	167.89

Table 4A.24.1. Fuel Oil End Use and Inputs to Conversion

Million tonnes

EBMate	Fuel Oil
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Sum of EBYear	EBPhase		EBProcess							Consumption Total	
	Transformation		Transformation Total	Consumption							
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Non-Material Sectors		Other
1980	14.19		14.19	0.02	14.82	0.15	1.09	0.03	0.07		16.18
1981	13.50		13.50	0.04	13.22	0.15	1.12	0.03	0.07		14.62
1982	13.21		13.21	0.03	12.97	0.12	1.32	0.03	0.04		14.52
1983	13.56		13.56	0.02	13.05	0.12	1.36	0.03	0.05		14.63
1984	13.55		13.55	0.02	13.20	0.15	1.40	0.04	0.03		14.85
1985	10.42	2.19	12.62	0.03	13.64	0.19	1.44	0.03	0.06		15.39
1986	10.46	2.52	12.98	0.01	14.76	0.15	1.73	0.02	0.05		16.72
1987	10.19	2.56	12.75	0.04	15.75	0.45	1.76	0.02	0.07		18.09
1988	10.73	2.76	13.49	0.04	16.31	0.27	1.84	0.03	0.03		18.52
1989	10.47	2.92	13.39	0.05	17.58	0.32	2.00	0.03	0.13		20.10
1990	9.77	3.08	12.86	0.03	17.67	0.47	2.08	0.02	0.16		20.43
1991	9.47	3.03	12.50	0.03	19.07	0.60	2.26	0.02		0.16	22.14
1992	8.53	3.19	11.72	0.04	18.91	0.61	2.28	0.02		0.15	22.01
1993	12.03	4.01	16.04	0.02	18.97	0.11	2.15	0.04		0.21	21.50
1994	8.93	4.37	13.29	0.01	19.32	0.17	2.28	0.03		0.16	21.96
1995	10.72	3.08	13.79	0.08	19.75	0.14	2.27	0.07		0.31	22.63
1996	8.89	2.97	11.86	0.02	19.62	0.14	2.24	0.04		1.14	23.21
1997	8.39	2.82	11.21	0.03	20.26	0.19	5.82	0.06		0.15	26.51
1998	9.94	3.43	13.37	0.00	18.45	0.17	5.66	0.07		0.21	24.56
1999	9.06	3.01	12.08	0.00	18.08	0.16	8.40	0.11		0.19	26.94
2000	8.14	2.91	11.05	0.00	18.44	0.17	8.50	0.12		0.19	27.41
2001	8.39	3.00	11.38	0.00	17.88	0.16	8.55	0.12		0.17	26.89
2002	9.13	2.67	11.79	0.00	17.53	0.19	8.72	0.12		0.19	26.76
2003	10.57	2.61	13.18	0.01	18.98	0.18	9.40	0.13		0.12	28.82
2004	14.29	2.13	16.43	0.01	19.17	0.21	11.50	0.25		0.16	31.30
2005	11.06	1.72	12.78	0.01	17.33	0.14	11.61	0.28		0.14	29.50
2006	9.28	1.59	10.87	0.01	19.35	0.16	12.81	0.21		0.13	32.68

Table 4A.24.2. Fuel Oil End Use and Inputs to Conversion (Mtce)

Mtce

EBMaterial	Fuel Oil
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Sum of E	EBPhase		EBProcess									Consumption Total
	Transformation		Transformation Total	Consumption								
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Non-Material Sectors	Other		
1980	20.28		20.28	0.03	21.17	0.21	1.56	0.04	0.10		23.12	
1981	19.30		19.30	0.06	18.89	0.21	1.60	0.04	0.09		20.89	
1982	18.87		18.87	0.05	18.53	0.17	1.89	0.05	0.06		20.74	
1983	19.37		19.37	0.03	18.65	0.17	1.94	0.04	0.07		20.91	
1984	19.36		19.36	0.03	18.86	0.21	2.01	0.06	0.05		21.21	
1985	14.89	3.13	18.03	0.04	19.49	0.27	2.06	0.04	0.09		21.99	
1986	14.95	3.60	18.55	0.02	21.09	0.22	2.47	0.03	0.07		23.90	
1987	14.56	3.66	18.21	0.06	22.50	0.65	2.52	0.03	0.10		25.86	
1988	15.33	3.95	19.28	0.06	23.30	0.38	2.63	0.04	0.05		26.46	
1989	14.96	4.17	19.14	0.07	25.12	0.45	2.86	0.04	0.18		28.72	
1990	13.97	4.41	18.37	0.04	25.24	0.68	2.98	0.02	0.23		29.19	
1991	13.53	4.33	17.86	0.05	27.24	0.86	3.24	0.03		0.23	31.64	
1992	12.19	4.56	16.75	0.06	27.03	0.87	3.26	0.03		0.21	31.46	
1993	17.20	5.73	22.92	0.03	27.11	0.16	3.07	0.05		0.30	30.72	
1994	12.76	6.24	19.00	0.01	27.60	0.24	3.25	0.05		0.23	31.39	
1995	15.31	4.40	19.71	0.12	28.23	0.20	3.25	0.09		0.44	32.33	
1996	12.70	4.25	16.95	0.04	28.03	0.20	3.21	0.06		1.62	33.16	
1997	11.99	4.03	16.02	0.04	28.95	0.27	8.32	0.09		0.21	37.88	
1998	14.20	4.90	19.10	0.00	26.37	0.24	8.08	0.11		0.31	35.10	
1999	12.95	4.31	17.26	0.01	25.83	0.23	12.00	0.15		0.28	38.50	
2000	11.64	4.16	15.80	0.01	26.35	0.24	12.15	0.17		0.27	39.17	
2001	11.98	4.28	16.26	0.01	25.56	0.23	12.22	0.18		0.24	38.43	
2002	13.04	3.81	16.85	0.01	25.05	0.27	12.46	0.18		0.27	38.23	
2003	15.10	3.73	18.83	0.01	27.13	0.25	13.44	0.19		0.17	41.18	
2004	20.42	3.05	23.47	0.01	27.40	0.31	16.44	0.36		0.22	44.73	
2005	15.81	2.45	18.26	0.01	24.76	0.20	16.59	0.39		0.20	42.15	
2006	13.26	2.27	15.54	0.01	27.66	0.23	18.30	0.31		0.19	46.70	

Table 4A.25.1. Natural Gas End Use and Inputs to Conversion

Billion cubic meters

EBMat Natural Gas

Sum of EBYear	EBPhase		EBProcess										Consumption Total
	Transformation		Transformation Total	Consumption									
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other		
1980	0.24		0.24		12.80	0.60	0.01		0.20	0.05		13.66	
1981	0.24		0.24		11.18	0.50	0.01		0.22	0.06		11.97	
1982	0.21		0.21		10.69	0.51	0.01		0.20	0.03		11.44	
1983	0.20		0.20		10.86	0.61	0.01		0.14	0.03		11.65	
1984	0.20		0.20		10.96	0.65	0.01		0.45	0.05		12.12	
1985	0.27	0.02	0.29		10.47	1.41	0.01		0.43	0.05		12.37	
1986	0.47	0.03	0.50		10.70	1.42	0.03		0.65	0.05		12.85	
1987	0.76	0.03	0.79		11.05	0.86	0.03		0.77	0.11		12.82	
1988	0.57	0.01	0.58		11.11	0.76	0.06	0.01	1.53	0.04		13.51	
1989	1.03	0.03	1.06		10.49	1.40	0.03		1.68	0.10		13.70	
1990	0.73	0.26	0.99		10.85	1.06	0.05		1.86	0.12		13.94	
1991	0.64	0.03	0.67		12.01	0.94	0.05		1.81		0.10	14.91	
1992	0.65	0.17	0.82		11.67	0.86	0.04		2.15		0.09	14.81	
1993	0.82	0.21	1.03	0.04	12.52	0.27	0.08	0.49	1.73		0.44	15.57	
1994	0.83	0.10	0.93	0.04	13.81	0.04	0.08	0.03	2.00		0.15	16.15	
1995	0.79	0.04	0.83	0.00	14.31	0.03	0.07	0.06	1.94		0.12	16.52	
1996	0.75	0.03	0.77	0.02	14.66	0.15	0.12	0.10	1.97		0.13	17.15	
1997	2.13	0.06	2.19		14.50	0.00	0.02	0.10	2.12		0.06	16.80	
1998	1.61	0.53	2.13		14.82	0.01	0.03	0.25	2.41		0.06	17.58	
1999	1.27	0.94	2.21		15.63	0.07	0.08	0.29	2.57		0.06	18.70	
2000	1.52	1.43	2.95		17.07	0.08	0.10	0.34	3.23		0.06	20.89	
2001	1.30	1.64	2.94		18.69	0.07	0.12	0.50	4.41		0.07	23.87	
2002	1.11	1.70	2.81		19.79	0.07	0.16	0.61	5.12			25.74	
2003	1.32	1.40	2.72		23.90	0.07	0.18	0.69	5.69			30.52	
2004	1.90	2.04	3.94		25.26	0.14	0.50	0.92	6.72		1.41	34.96	
2005	3.15	2.32	5.47		29.18	0.15	0.58	1.08	7.94		0.91	39.84	
2006	3.76	2.13	5.89		34.58	0.17	0.80	1.32	10.26		1.28	48.40	

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1985.

Table 4A.25.2. Natural Gas End Use and Inputs to Conversion (Mtce)

Mtce

EBMate	Natural Gas
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Sum of \$	EBPhase		EBProcess										Consumption Total
	Transformation		Transformation Total	Consumption									
	Thermal Power	Heating Supply		Agriculture	Industry	Construction	Transportation	Commercial Consumption	Residential consumption	Non-Material Sectors	Other		
1986	0.63	0.04	0.67		14.23	1.89	0.04			0.86	0.07		17.09
1987	1.01	0.04	1.05		14.70	1.14	0.04			1.02	0.15		17.05
1988	0.76	0.01	0.77		14.78	1.01	0.08		0.01	2.03	0.05		17.97
1989	1.37	0.04	1.41		13.95	1.86	0.04			2.23	0.13		18.22
1990	0.97	0.35	1.32		14.43	1.41	0.07			2.47	0.16		18.54
1991	0.85	0.04	0.89		15.97	1.25	0.07			2.41		0.13	19.83
1992	0.86	0.23	1.09		15.52	1.14	0.05			2.86		0.12	19.70
1993	1.09	0.27	1.37	0.05	16.66	0.36	0.10		0.66	2.30		0.59	20.71
1994	1.11	0.14	1.24	0.05	18.37	0.05	0.10		0.05	2.65		0.20	21.48
1980	0.32		0.32		17.02	0.80	0.01			0.27	0.07		18.17
1981	0.32		0.32		14.87	0.67	0.01			0.29	0.08		15.92
1982	0.28		0.28		14.22	0.68	0.01			0.27	0.04		15.22
1983	0.27		0.27		14.44	0.81	0.01			0.19	0.04		15.49
1984	0.27		0.27		14.58	0.86	0.01			0.60	0.07		16.12
1985	0.36	0.03	0.39		13.93	1.88	0.01			0.57	0.07		16.45
1995	1.05	0.05	1.11	0.00	19.03	0.04	0.09		0.07	2.58		0.16	21.98
1996	0.99	0.04	1.03	0.03	19.49	0.20	0.16		0.13	2.62		0.17	22.81
1999	1.69	1.25	2.93		20.78	0.09	0.11		0.39	3.42		0.08	24.87
1997	2.83	0.08	2.91		19.28	0.00	0.03		0.13	2.82		0.08	22.34
1998	2.13	0.70	2.84		19.70	0.02	0.03		0.34	3.21		0.08	23.38
2000	2.02	1.90	3.92		22.70	0.11	0.13		0.46	4.30		0.09	27.79
2001	1.73	2.18	3.91		24.86	0.10	0.16		0.67	5.87		0.09	31.74
2002	1.47	2.26	3.73		26.33	0.09	0.21		0.81	6.80			34.24
2003	1.76	1.86	3.62		31.79	0.09	0.23		0.91	7.57			40.59
2004	2.53	2.71	5.24		33.60	0.18	0.67		1.22	8.94		1.88	46.49
2005	4.19	3.08	7.27		38.80	0.20	0.77		1.44	10.56		1.21	52.98
2006	5.00	2.84	7.83		45.99	0.22	1.07		1.75	13.65		1.70	64.38

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other". Heating Supply consumption was included in Thermal Power prior to 1985.

Table 4A.26.1. Electricity End Use by Sector

TWh

Sum of E	EBProcess								
EBYear	Industry	Agriculture	Transportation	Commercial Consumption	Residential consumption	Construction	Non-Material Sectors	Other	Total Consumption
1980	222.90	27.00	2.65	1.68	10.52	4.71	6.88		276.34
1981	227.25	28.16	2.91	1.91	11.80	4.66	7.38		284.07
1982	242.91	28.64	2.99	2.03	12.05	5.00	8.16		301.78
1983	261.85	28.64	3.58	2.39	13.73	5.27	8.95		324.41
1984	280.82	28.84	4.14	2.87	15.91	5.77	10.05		348.40
1985	297.91	31.74	6.34	3.80	22.25	7.12	12.17		381.33
1986	331.67	32.19	6.69	4.12	24.79	5.35	12.68		417.49
1987	364.46	35.96	7.67	4.91	28.65	5.84	14.91		462.40
1988	398.51	37.89	8.95	6.25	34.33	6.27	16.53		508.73
1989	423.32	41.05	9.87	6.87	39.52	6.52	18.05		545.20
1990	443.87	42.68	10.59	7.62	48.08	6.50	20.24		579.58
1991	477.27	47.98	11.72	9.00	54.36	7.42		23.90	631.65
1992	528.44	52.24	13.61	11.13	64.00	8.25		26.65	704.32
1993	584.22	48.10	14.62	13.57	73.71	12.92		33.60	780.74
1994	638.69	53.06	16.40	17.92	86.70	14.97		38.70	866.43
1995	691.53	58.24	18.23	19.95	100.56	15.96		23.42	927.89
1996	727.52	61.83	19.79	22.31	113.30	18.18		36.54	999.48
1997	759.73	63.98	25.59	26.51	125.32	11.74		35.74	1048.60
1998	761.50	62.35	25.56	29.34	132.45	18.88		50.67	1080.75
1999	797.08	66.04	25.48	34.28	148.08	14.23		59.14	1144.33
2000	871.69	67.30	28.12	39.37	167.20	15.48		64.32	1253.47
2001	950.12	76.24	30.93	44.49	183.92	14.49		68.81	1369.00
2002	1075.85	77.62	33.80	50.00	200.14	16.41		75.85	1529.68
2003	1263.90	77.32	39.69	62.30	223.80	18.98		91.10	1777.09
2004	1483.37	80.89	44.97	73.54	246.45	22.21		103.66	2055.08
2005	1677.52	87.63	43.03	75.23	282.48	23.39		134.09	2323.39
2006	1938.89	94.70	46.74	84.73	325.16	27.11		155.59	2672.91

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other".

Table 4A.26.2. Electricity End Use by Sector (Shares)

Shares

Sum of EB	EBProcess								
EBYear	Industry	Agriculture	Transportation	Commercial Consumption	Residential consumption	Construction	Non-Material Sectors	Other	Total Consumption
1980	80.7%	9.8%	1.0%	0.6%	3.8%	1.7%	2.5%	-	100%
1981	80.0%	9.9%	1.0%	0.7%	4.2%	1.6%	2.6%	-	100%
1982	80.5%	9.5%	1.0%	0.7%	4.0%	1.7%	2.7%	-	100%
1983	80.7%	8.8%	1.1%	0.7%	4.2%	1.6%	2.8%	-	100%
1984	80.6%	8.3%	1.2%	0.8%	4.6%	1.7%	2.9%	-	100%
1985	78.1%	8.3%	1.7%	1.0%	5.8%	1.9%	3.2%	-	100%
1986	79.4%	7.7%	1.6%	1.0%	5.9%	1.3%	3.0%	-	100%
1987	78.8%	7.8%	1.7%	1.1%	6.2%	1.3%	3.2%	-	100%
1988	78.3%	7.4%	1.8%	1.2%	6.7%	1.2%	3.2%	-	100%
1989	77.6%	7.5%	1.8%	1.3%	7.2%	1.2%	3.3%	-	100%
1990	76.6%	7.4%	1.8%	1.3%	8.3%	1.1%	3.5%	-	100%
1991	75.6%	7.6%	1.9%	1.4%	8.6%	1.2%	-	3.8%	100%
1992	75.0%	7.4%	1.9%	1.6%	9.1%	1.2%	-	3.8%	100%
1993	74.8%	6.2%	1.9%	1.7%	9.4%	1.7%	-	4.3%	100%
1994	73.7%	6.1%	1.9%	2.1%	10.0%	1.7%	-	4.5%	100%
1995	74.5%	6.3%	2.0%	2.1%	10.8%	1.7%	-	2.5%	100%
1996	72.8%	6.2%	2.0%	2.2%	11.3%	1.8%	-	3.7%	100%
1997	72.5%	6.1%	2.4%	2.5%	12.0%	1.1%	-	3.4%	100%
1998	70.5%	5.8%	2.4%	2.7%	12.3%	1.7%	-	4.7%	100%
1999	69.7%	5.8%	2.2%	3.0%	12.9%	1.2%	-	5.2%	100%
2000	69.5%	5.4%	2.2%	3.1%	13.3%	1.2%	-	5.1%	100%
2001	69.4%	5.6%	2.3%	3.2%	13.4%	1.1%	-	5.0%	100%
2002	70.3%	5.1%	2.2%	3.3%	13.1%	1.1%	-	5.0%	100%
2003	71.1%	4.4%	2.2%	3.5%	12.6%	1.1%	-	5.1%	100%
2004	72.2%	3.9%	2.2%	3.6%	12.0%	1.1%	-	5.0%	100%
2005	72.2%	3.8%	1.9%	3.2%	12.2%	1.0%	-	5.8%	100%
2006	72.5%	3.5%	1.7%	3.2%	12.2%	1.0%	-	5.8%	100%

N.B. Starting in 1991, energy use in the "Non-Material Sector" (government, schools, hospitals, etc.) was reclassified to "Other".

Table 4A.27.1. Output of Major Petroleum Products

Million tonnes

EBUom | Mt

Sum of E	BMaterial							
EBYear	Refinery Gas	Liquid Petroleum Gas	Gasoline	Kerosene	Diesel Oil	Fuel Oil	Petroleum Other Products	Grand Total
1980		1.23	10.79	3.99	18.28	31.42	12.18	77.88
1981		1.11	11.12	3.67	17.78	28.18	12.21	74.07
1982		1.24	11.14	3.84	17.46	27.99	13.06	74.73
1983		1.50	12.64	4.10	19.04	28.97	13.44	79.69
1984		1.54	13.50	4.08	19.47	28.57	14.68	81.84
1985	2.18	1.60	14.72	4.05	20.23	28.36	13.62	84.76
1986	2.43	2.02	16.85	4.16	22.31	29.86	13.49	91.13
1987	2.53	2.15	17.37	4.18	23.66	31.31	14.83	96.03
1988	2.59	2.32	18.85	3.85	24.60	32.19	16.11	100.51
1989	2.71	2.55	20.68	3.95	25.82	32.37	16.74	104.80
1990	2.81	2.62	21.73	3.93	26.09	32.68	16.80	106.65
1991	3.09	3.07	24.04	4.06	28.53	32.44	18.26	113.49
1992	3.26	3.50	27.26	3.95	31.71	32.32	18.26	120.27
1993	3.24	4.13	31.60	3.83	35.43	31.95	17.36	127.54
1994	3.81	4.45	28.54	4.07	34.79	30.49	22.23	128.38
1995	4.28	5.41	30.52	4.46	39.73	29.61	25.34	139.33
1996	4.50	6.06	32.75	5.38	44.19	25.05	30.70	148.63
1997	5.34	6.68	35.18	5.77	49.24	23.11	36.93	162.25
1998	5.45	7.47	35.01	6.16	48.98	21.00	38.64	162.71
1999	6.18	8.17	37.41	7.44	61.73	19.59	35.34	175.86
2000	6.93	9.17	41.35	8.72	70.80	20.54	38.33	195.83
2001	6.73	9.52	41.55	7.89	74.86	18.64	38.70	197.90
2002	6.96	10.37	43.21	8.26	77.06	18.46	42.57	206.89
2003	7.12	12.12	47.91	8.55	85.33	20.05	47.65	228.73
2004	8.32	14.17	52.65	9.62	98.44	20.29	61.92	265.42
2005	9.13	14.33	54.33	10.06	110.90	17.67	62.31	278.74
2006	9.84	17.45	55.95	9.75	117.62	17.85	69.22	297.69

N.B. Total is sum of reported products.

Table 4A.27.2. Output of Major Petroleum Products (Shares)

Shares

Sum of	EBMaterial							
EBYear	Refinery Gas	Liquid Petroleum Gas				Fuel Oil	Petroleum Other Products	Grand Total
		Gasoline	Kerosene	Diesel Oil				
1980	0.0%	1.6%	13.9%	5.1%	23.5%	40.3%	15.6%	100%
1981	0.0%	1.5%	15.0%	5.0%	24.0%	38.0%	16.5%	100%
1982	0.0%	1.7%	14.9%	5.1%	23.4%	37.5%	17.5%	100%
1983	0.0%	1.9%	15.9%	5.1%	23.9%	36.4%	16.9%	100%
1984	0.0%	1.9%	16.5%	5.0%	23.8%	34.9%	17.9%	100%
1985	2.6%	1.9%	17.4%	4.8%	23.9%	33.5%	16.1%	100%
1986	2.7%	2.2%	18.5%	4.6%	24.5%	32.8%	14.8%	100%
1987	2.6%	2.2%	18.1%	4.4%	24.6%	32.6%	15.4%	100%
1988	2.6%	2.3%	18.8%	3.8%	24.5%	32.0%	16.0%	100%
1989	2.6%	2.4%	19.7%	3.8%	24.6%	30.9%	16.0%	100%
1990	2.6%	2.5%	20.4%	3.7%	24.5%	30.6%	15.8%	100%
1991	2.7%	2.7%	21.2%	3.6%	25.1%	28.6%	16.1%	100%
1992	2.7%	2.9%	22.7%	3.3%	26.4%	26.9%	15.2%	100%
1993	2.5%	3.2%	24.8%	3.0%	27.8%	25.1%	13.6%	100%
1994	3.0%	3.5%	22.2%	3.2%	27.1%	23.7%	17.3%	100%
1995	3.1%	3.9%	21.9%	3.2%	28.5%	21.2%	18.2%	100%
1996	3.0%	4.1%	22.0%	3.6%	29.7%	16.9%	20.7%	100%
1997	3.3%	4.1%	21.7%	3.6%	30.4%	14.2%	22.8%	100%
1998	3.3%	4.6%	21.5%	3.8%	30.1%	12.9%	23.7%	100%
1999	3.5%	4.6%	21.3%	4.2%	35.1%	11.1%	20.1%	100%
2000	3.5%	4.7%	21.1%	4.5%	36.2%	10.5%	19.6%	100%
2001	3.4%	4.8%	21.0%	4.0%	37.8%	9.4%	19.6%	100%
2002	3.4%	5.0%	20.9%	4.0%	37.2%	8.9%	20.6%	100%
2003	3.1%	5.3%	20.9%	3.7%	37.3%	8.8%	20.8%	100%
2004	3.1%	5.3%	19.8%	3.6%	37.1%	7.6%	23.3%	100%
2005	3.3%	5.1%	19.5%	3.6%	39.8%	6.3%	22.4%	100%
2006	3.3%	5.9%	18.8%	3.3%	39.5%	6.0%	23.3%	100%

N.B. Total is sum of reported products.

Table 4B.1. Primary Energy Consumption: Commercial and Biomass Energy

1. Mtce

	Commercial Energy ^[1]					Biomass Fuels ^[2]					Total
	Coal	Oil	Natural Gas	Hydro-electricity	Subtotal	Crop Stalk	Dung Cake	Biogas	Firewood	Subtotal	
1979	418	128	19	21	586	114	6		104	224	810
1980	436	125	19	24	604						
1981	433	119	17	27	595						
1982	458	117	16	30	621						
1983	491	120	16	34	661						
1984	535	124	17	34	710						
1985	581	131	17	38	767						
1986	613	139	19	38	809						
1987	660	147	18	41	866	130	3		133	266	1,133
1988	709	158	20	44	930						
1989	737	166	19	47	969						
1990	752	164	21	50	987	132			131	263	1,250
1991	790	177	21	50	1,038						1,038
1992	826	191	21	53	1,092	136			110	246	1,337
1993	866	211	22	60	1,160	137			110	248	1,408
1994	921	214	23	70	1,227	137			110	248	1,475
1995	979	230	24	80	1,312	129			92	221	1,533
1996	1,038	250	25	76	1,389	120			99	219	1,609
1997	988	281	23	85	1,378						1,378
1998	920	284	29	89	1,322	123		1	84	208	1,530
1999	925	302	28	83	1,338	125		1	78	204	1,543
2000	939	321	33	93	1,386	124		2	81	206	1,591
2001	955	328	37	113	1,432	131		2	98	231	1,663
2002	1,006	355	39	117	1,518	141		3	114	258	1,776
2003	1,197	388	45	119	1,750	143		3	116	262	2,012
2004	1,382	453	53	144	2,032	146		4	120	270	2,302
2005	1,553	472	63	160	2,247	160		5	103	268	2,514
2006	1,709	502	74	177	2,463	178		5	97	280	2,743

[1] Fossil fuels are counted in their primary forms. Hydropower is converted as 1 kWh = 0.404 kgce. Commercial energy data are the aggregate primary energy consumption statistics published by the National Bureau of Statistics, and differ slightly from the database extracts (based on NBS's balance tables) in Table 4A. 1.

[2] Biomass figures are for rural household consumption. Since sources vary, official estimates of biomass use for various years may not be comparable.

Sources: EB, National Rural Energy Planning, 1990; SPC, Energy Conservation in China, 1997; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; EB, China Rural Energy Statistical Yearbook, 1998-1999.

Table 4B.1. Primary Energy Consumption: Commercial and Biomass Energy (continued)

2. Shares of Commercial and Biomass Energy

	Percent of Commercial Energy Consumption					Percent of Biomass Energy Consumption				
	Coal	Oil	Natural Gas	Hydro-electricity	Subtotal	Crop Stalk	Dung Cake	Biogas	Firewood	Subtotal
1979	71%	22%	3%	4%	100%	51%	3%		46%	100%
1980	72%	21%	3%	4%	100%					
1981	73%	20%	3%	4%	100%					
1982	74%	19%	3%	5%	100%					
1983	74%	18%	2%	5%	100%					
1984	75%	17%	2%	5%	100%					
1985	76%	17%	2%	5%	100%					
1986	76%	17%	2%	5%	100%					
1987	76%	17%	2%	5%	100%	49%	1%		50%	100%
1988	76%	17%	2%	5%	100%					
1989	76%	17%	2%	5%	100%					
1990	76%	17%	2%	5%	100%	50%			50%	100%
1991	76%	17%	2%	5%	100%					
1992	76%	18%	2%	5%	100%	55%			45%	100%
1993	75%	18%	2%	5%	100%	55%			45%	100%
1994	75%	17%	2%	6%	100%	55%			45%	100%
1995	75%	18%	2%	6%	100%	58%			42%	100%
1996	75%	18%	2%	6%	100%	55%			45%	100%
1997	72%	20%	2%	6%	100%					
1998	70%	22%	2%	7%	100%	59%		1%	40%	100%
1999	69%	23%	2%	6%	100%	61%		1%	38%	100%
2000	68%	23%	2%	7%	100%	60%		1%	39%	100%
2001	67%	23%	3%	8%	100%	57%		1%	42%	100%
2002	66%	23%	3%	8%	100%	55%		1%	44%	100%
2003	68%	22%	3%	7%	100%	54%		1%	44%	100%
2004	68%	22%	3%	7%	100%	54%		1%	45%	100%
2005	69%	21%	3%	7%	100%	60%		2%	39%	100%
2006	69%	20%	3%	7%	100%	64%		2%	35%	100%

[1] Fossil fuels are counted in their primary forms. Hydropower is converted as 1 kWh = 0.404 kgce. Commercial energy data are the aggregate primary energy consumption statistics published by the National Bureau of Statistics, and differ slightly from the database extracts (based on NBS's balance tables) in Table 4A.1.

[2] Biomass figures are for rural household consumption. Since sources vary, official estimates of biomass use for various years may not be comparable.

Sources: EB, National Rural Energy Planning, 1990; SPC, Energy Conservation in China, 1997; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; EB, China Rural Energy Statistical Yearbook, 1998-1999.

Table 4B.1. Primary Energy Consumption: Commercial and Biomass Energy (continued)

2. Shares of Total Energy

	Commercial Energy ^[1]					Biomass Fuels ^[2]					Total
	Coal	Oil	Natural Gas	Hydro-electricity	Subtotal	Crop Stalk	Dung Cake	Biogas	Firewood	Subtotal	
1979	52%	16%	2%	2%	72%	14%	0.8%		13%	28%	100%
1987	58%	13%	2%	4%	77%	11%	0.3%		12%	23%	100%
1990	60%	13%	2%	4%	79%	11%			11%	21%	100%
1991											
1992	62%	14%	2%	4%	82%	10%			8%	18%	100%
1993	62%	15%	2%	4%	82%	10%			8%	18%	100%
1994	62%	14%	2%	5%	83%	9%			7%	17%	100%
1995	64%	15%	2%	5%	86%	8%			6%	14%	100%
1996	65%	16%	2%	5%	86%	7%			6%	14%	100%
1997											
1998	60%	19%	2%	6%	86%	8%		0.1%	5%	14%	100%
1999	60%	20%	2%	5%	87%	8%		0.1%	5%	13%	100%
2000	59%	20%	2%	6%	87%	8%		0.1%	5%	13%	100%
2001	57%	20%	2%	7%	86%	8%		0.1%	6%	14%	100%
2002	57%	20%	2%	7%	85%	8%		0.2%	6%	15%	100%
2003	59%	19%	2%	6%	87%	7%		0.2%	6%	13%	100%
2004	60%	20%	2%	6%	88%	6%		0.2%	5%	12%	100%
2005	62%	19%	3%	6%	89%	6%		0.2%	4%	11%	100%
2006	62%	18%	3%	6%	90%	6%		0.2%	4%	10%	100%

[1] Fossil fuels are counted in their primary forms. Hydropower is converted as 1 kWh = 0.404 kgce. Commercial energy data are the aggregate primary energy consumption statistics published by the National Bureau of Statistics, and differ slightly from the database extracts (based on NBS's balance tables) in Table 4A.1.

[2] Biomass figures are for rural household consumption. Since sources vary, official estimates of biomass use for various years may not be comparable.

Sources: EB, National Rural Energy Planning, 1990; SPC, Energy Conservation in China, 1997; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; EB, China Rural Energy Statistical Yearbook, 1998-1999.

Figure 4B.1. Primary Energy Consumption: Commercial and Biomass Energy

1979

810 Mtce

1987

1,133 Mtce

- Coal
- Oil
- Natural Gas
- Hydro-electricity
- Crop Stalk
- Dung/Biogas
- Firewood

Figure 4B.1. Primary Energy Consumption: Commercial and Biomass Energy

1999

1,543 Mtce

2006

2,743 Mtce

Table 4B.2. Actual Primary Energy Consumption and Projected Energy Consumption at Frozen 1977 Intensity^[1]

	Primary Energy Use (Mtce) ^[2]	GDP (billion 2000 RMB)	Intensity (kgce/thousand 2000 RMB)	Primary Energy Use at Fixed 1977 Intensity (Mtce)	Difference (Mtce)
1952	47.15	276.8	170.33		
1953	54.17	320.0	169.27		
1954	63.14	333.5	189.34		
1955	69.79	356.1	195.96		
1956	88.08	409.6	215.07		
1957	96.47	430.4	224.12		
1958	175.87	522.1	336.83		
1959	239.06	568.1	420.82		
1960	301.43	566.4	532.21		
1961	203.52	411.8	494.27		
1962	165.04	388.7	424.59		
1963	155.47	428.3	362.96		
1964	166.26	506.7	328.10		
1965	188.99	592.9	318.76		
1966	202.62	656.3	308.73		
1967	182.97	618.9	295.64		
1968	183.23	593.5	308.71		
1969	226.81	693.8	326.89		
1970	292.13	828.4	352.63		
1971	345.06	886.4	389.28		
1972	372.75	920.1	405.11		
1973	391.09	992.8	393.93		
1974	401.34	1,015.6	395.16		
1975	454.93	1,104.0	412.08		
1976	478.29	1,086.3	440.28		
1977	523.53	1,168.9	447.89	523.53	0.00
1978	571.40	1,305.6	437.64	584.79	13.39
1979	585.96	1,404.9	417.09	629.23	43.28
1980	603.59	1,514.5	398.55	678.31	74.72
1981	594.57	1,593.2	373.19	713.58	119.01
1982	621.16	1,738.2	357.36	778.52	157.36
1983	661.19	1,927.7	343.00	863.38	202.19
1984	710.39	2,220.7	319.90	994.61	284.22
1985	766.82	2,520.5	304.24	1,128.88	362.06
1986	808.50	2,742.2	294.83	1,228.23	419.73
1987	866.32	3,060.4	283.08	1,370.70	504.38
1988	929.97	3,406.2	273.03	1,525.59	595.62
1989	969.34	3,545.8	273.38	1,588.14	618.80
1990	987.03	3,680.6	268.17	1,648.49	661.46
1991	1,037.83	4,019.2	258.22	1,800.15	762.32
1992	1,091.70	4,589.9	237.85	2,055.77	964.07
1993	1,159.93	5,232.5	221.68	2,343.58	1,183.65
1994	1,227.37	5,917.9	207.40	2,650.58	1,423.21
1995	1,311.76	6,563.0	199.87	2,939.50	1,627.74
1996	1,389.48	7,219.3	192.47	3,233.45	1,843.97
1997	1,377.98	7,890.7	174.63	3,534.16	2,156.18
1998	1,322.14	8,506.2	155.43	3,809.82	2,487.68
1999	1,338.31	9,152.6	146.22	4,099.37	2,761.06
2000	1,385.53	9,921	139.65	4,443.72	3,058.19
2001	1,431.99	10,745	133.27	4,812.71	3,380.72
2002	1,517.97	11,723	129.49	5,250.67	3,732.70
2003	1,749.90	12,895	135.70	5,775.74	4,025.84
2004	2,032.27	14,198	143.14	6,359.09	4,326.82
2005	2,246.82	15,674	143.34	7,020.43	4,773.61
2006	2,462.70	17,414	141.42	7,799.43	5,336.73

[1] Energy intensity is here defined as total primary energy consumption (in Mtce) per unit of GDP. Projections of primary energy consumption at 1977 intensity for 1978-1999 are obtained by multiplying actual GDP for those years by 1977 intensity.

[2] The coefficient is calculated based on average coal consumption in power generation in the same year.

Source: NBS, China Statistical Yearbook, various years; Energy Research Institute.

Figure 4B.2. Energy Intensity of the Chinese Economy, 1952-2006

Figure 4B.3. Primary Commerical Energy Consumption: Actual Use and Use Predicted by 1977 Energy Intensity, 1952-2006

Table 4B.3. Energy Intensity by Province

1. 1996

Planning Region	Province	Primary Energy Consumption (Mtce)	Gross Domestic Product (billion current yuan)	Energy Intensity (kgce/thousand current yuan)
North	Beijing	34.82	161.57	215.51
	Tianjin	24.94	110.24	226.23
	Hebei	89.87	345.30	260.27
	Shanxi	95.04	130.55	728.00
	Inner Mongolia	41.92	98.48	425.68
Northeast	Liaoning	89.87	315.77	284.61
	Jilin	44.56	133.72	333.24
	Heilongjiang	59.58	240.26	247.98
East	Shanghai	42.17	290.22	145.30
	Jiangsu	79.11	600.42	131.76
	Zhejiang	47.52	414.61	114.61
	Anhui	42.22	233.93	180.49
	Fujian	24.43	260.69	93.71
	Jiangxi	23.75	151.73	156.53
	Shandong	91.92	596.04	154.22
South-Central	Henan	67.29	368.34	182.68
	Hubei	59.68	297.02	200.93
	Hunan	53.71	264.72	202.90
	Guangdong	75.95	651.91	116.50
	Guangxi	25.34	186.96	135.54
	Hainan	2.90	38.95	74.45
Southwest	Sichuan	90.73	421.50	215.26
	Guizhou	39.84	71.98	553.46
	Yunnan	31.89	149.16	213.79
	Tibet		6.48	
Northwest	Shaanxi	33.85	117.54	287.99
	Gansu	26.85	71.42	375.96
	Qinghai	6.54	18.36	356.27
	Ningxia	8.86	19.36	457.60
	Xinjiang	30.16	91.22	330.65
National Total		1,339.21	6,858.43	195.26

Source: NBS, China Energy Statistical Yearbook, 1998, SSB, China Statistical Yearbook, 1997.

Table 4B.3. Energy Intensity by Province (continued)

2. 1999

Planning Region	Province	Primary Energy Consumption (Mtce)	Gross Domestic Product (billion current yuan)	Energy Intensity (kgce/thousand current yuan)
North	Beijing	39.86	217.45	183.31
	Tianjin	25.53	145.01	176.06
	Hebei	93.79	456.92	205.27
	Shanxi	65.01	150.68	431.45
	Inner Mongolia	38.03	126.82	299.87
Northeast	Liaoning	93.84	417.17	224.94
	Jilin	36.93	166.09	222.35
	Heilongjiang	60.58	289.74	209.08
East	Shanghai	52.08	403.50	129.07
	Jiangsu	81.64	769.78	106.06
	Zhejiang	54.57	536.49	101.72
	Anhui	46.83	290.86	161.01
	Fujian	27.72	355.02	78.08
	Jiangxi	21.34	185.37	115.12
	Shandong	90.68	766.21	118.35
South-Central	Henan	73.80	457.61	161.27
	Hubei	59.88	385.80	155.21
	Hunan	40.87	332.68	122.85
	Guangdong	87.35	846.43	103.20
	Guangxi	24.73	195.33	126.61
	Hainan	4.31	47.12	91.46
Southwest	Chongqing	36.89	147.97	249.31
	Sichuan	63.70	371.16	171.62
	Guizhou	40.18	91.19	440.64
	Yunnan	32.88	185.57	177.18
	Tibet		10.56	
Northwest	Shaanxi	26.68	148.76	179.35
	Gansu	29.17	93.20	312.99
	Qinghai	9.39	23.84	393.89
	Ningxia	8.48	24.15	351.15
	Xinjiang	32.15	116.86	275.13
National Total		1,301.19	8,206.75	158.55

Source: NBS, China Energy Statistical Yearbook, 2001, SSB, China Statistical Yearbook, 2001.

Table 4B.3. Energy Intensity by Province (continued)

3. 2002

Planning Region	Province	Primary Energy Consumption (Mtce)	Gross Domestic Product (billion current yuan)	Energy Intensity (kgce/thousand current yuan)
North	Beijing	45.03	321.27	140.16
	Tianjin	30.22	205.12	147.33
	Hebei	115.88	612.25	189.27
	Shanxi	93.39	201.754	462.89
	Inner Mongolia	45.60	173.43	262.93
Northeast	Liaoning	105.99	545.82	194.18
	Jilin	43.53	224.61	193.80
	Heilongjiang	60.04	388.22	154.66
East	Shanghai	61.19	540.88	113.13
	Jiangsu	96.09	1,063.18	90.38
	Zhejiang	73.86	779.60	94.74
	Anhui	53.16	356.91	148.95
	Fujian	34.90	468.20	74.54
	Jiangxi	25.99	245.05	106.06
	Shandong	110.48	1,055.21	104.70
South-Central	Henan	86.03	616.87	139.46
	Hubei	67.13	497.56	134.92
	Hunan	50.45	434.09	116.22
	Guangdong	113.55	1,176.97	96.48
	Guangxi	29.82	245.54	121.45
	Hainan		60.41	
Southwest	Chongqing	32.04	197.13	162.53
	Sichuan	75.10	487.51	154.05
	Guizhou	44.70	118.50	377.20
	Yunnan	39.39	223.23	176.45
	Tibet		16.14	
Northwest	Shaanxi	37.13	203.60	182.37
	Gansu	30.18	116.14	259.85
	Qinghai	10.19	34.11	298.73
	Ningxia		32.93	
	Xinjiang	36.22	159.83	226.62
National Total		1,482.22	10,479.1	141.45

Source: NBS, China Energy Statistical Yearbook, 2004, SSB, China Statistical Yearbook, 2003.

Table 4B.3. Energy Intensity by Province (continued)

4. 2006

Planning Region	Province	Primary Energy Consumption (Mtce) ^[1]	Gross Domestic Product (billion current yuan)	Energy Intensity (kgce/thousand current yuan)
North	Beijing	59.04	787.03	75.02
	Tianjin	45.25	435.92	103.80
	Hebei	216.90	1,166.04	186.01
	Shanxi	134.97	475.254	284.00
	Inner Mongolia	111.63	479.15	232.98
Northeast	Liaoning	158.83	925.12	171.69
	Jilin	66.22	427.51	154.90
	Heilongjiang	87.28	618.89	141.03
East	Shanghai	89.67	1,036.64	86.50
	Jiangsu	187.42	2,164.51	86.59
	Zhejiang	132.22	1,574.25	83.99
	Anhui	70.96	614.87	115.41
	Fujian	68.40	761.46	89.83
	Jiangxi	46.61	467.05	99.80
	Shandong	261.64	2,207.74	118.51
South-Central	Henan	162.35	1,249.60	129.92
	Hubei	107.97	758.13	142.42
	Hunan	98.79	756.89	130.52
	Guangdong	197.65	2,620.45	75.43
	Guangxi	55.15	482.85	114.22
	Hainan	9.11	105.29	86.53
Southwest	Chongqing	47.23	349.16	135.27
	Sichuan	125.39	863.78	145.16
	Guizhou	70.45	228.20	308.72
	Yunnan	66.41	400.67	165.75
	Tibet		29.10	
Northwest	Shaanxi	59.05	452.37	130.53
	Gansu	47.43	227.67	208.33
	Qinghai	19.03	64.16	296.61
	Ningxia	28.02	71.08	394.23
	Xinjiang	60.47	304.53	198.57
National Total		2,462.70	21,087.1	116.79

[1] Total energy consumption is based on coal equivalent calculation.

Source: China Energy Statistical Yearbook, 2007; NBS, China Statistical Yearbook, 2007.

Table 4B.3.(b) Energy Intensity Indicators by Province

1. 2005

Region	Energy Consumption per GDP Unit (tce/10,000 yuan)	Electricity consumption per GDP Unit (kwh/10,000 yuan)	Energy consumption per unit of industrial added value (tce/10,000 yuan)
Beijing	0.80	828.5	1.50
Tianjin	1.11	1,040.8	1.45
Hebei	1.96	1,487.6	4.41
Shanxi	2.95	2,264.2	6.57
Inner Mongolia	2.48	1,714.1	5.67
Liaoning	1.83	1,386.6	3.11
Jilin	1.65	1,044.7	3.25
Heilongjiang	1.46	1,008.5	2.34
Shanghai	0.88	1,007.2	1.18
Jiangsu	0.92	1,198.2	1.67
Zhejiang	0.90	1,222.2	1.49
Anhui	1.21	1,082.9	3.13
Fujian	0.94	1,151.8	1.45
Jiangxi	1.06	966.3	3.11
Shandong	1.28	1,032.4	2.15
Henan	1.38	1,277.7	4.02
Hubei	1.51	1,210.0	3.50
Hunan	1.40	1,035.8	2.88
Guangdong	0.79	1,195.3	1.08
Guangxi	1.22	1,251.7	3.19
Hainan	0.92	912.3	3.65
Chongqing	1.42	1,132.3	2.75
Sichuan	1.53	1,276.3	3.52
Guizhou	3.25	2,460.6	5.38
Yunnan	1.73	1,604.6	3.55
Shaanxi	1.48	1,405.0	2.62
Gansu	2.26	2,531.0	4.99
Qinghai	3.07	3,801.8	3.44
Ningxia	4.14	4,997.7	9.03
Xinjiang	2.11	1,190.9	3.00
National	1.22	1,358.5	2.59

Sources: NBS.

Table 4B.3.(b) Energy Intensity Indicators by Province (continued)

2. 2006

Region	Energy Consumption per GDP		Electricity consumption per GDP Unit		Energy consumption per	
	Value (tce/10,000 yuan)	Changes (%)	Value (kwh/10,000 yuan)	Changes (%)	Value (tce/10,000 yuan)	Changes (%)
Beijing	0.760	-5.25	787.0	-5.01	1.33	-10.06
Tianjin	1.069	-3.98	1,024.1	-1.61	1.33	-7.99
Hebei	1.895	-3.09	1,515.9	1.90	4.19	-5.59
Shanxi	2.888	-1.97	2,348.4	3.72	5.89	-3.36
Inner Mongolia	2.413	-2.50	1,913.1	11.61	5.37	-5.20
Liaoning	1.775	-3.20	1,372.6	-1.01	2.92	-6.10
Jilin	1.591	-3.32	990.9	-5.15	2.80	-4.41
Heilongjiang	1.412	-3.04	965.9	-4.22	2.23	-5.91
Shanghai	0.873	-3.71	964.3	-4.15	1.20	-6.00
Jiangsu	0.891	-3.50	1,221.2	1.92	1.57	-7.32
Zhejiang	0.864	-3.52	1,247.4	2.06	1.43	-1.90
Anhui	1.171	-3.44	1,092.6	0.89	2.86	-6.96
Fujian	0.907	-3.20	1,149.8	-0.17	1.37	-5.30
Jiangxi	1.023	-3.18	979.4	1.36	2.72	-5.84
Shandong	1.231	-3.46	1,069.0	3.55	2.02	-5.70
Henan	1.340	-2.98	1,257.5	-1.58	3.78	-5.93
Hubei	1.462	-3.21	1,187.5	-1.86	3.33	-4.99
Hunan	1.352	-3.39	1,051.9	1.55	2.74	-4.38
Guangdong	0.771	-2.93	1,172.1	-1.95	1.04	-2.96
Guangxi	1.191	-2.50	1,252.0	0.02	2.88	-7.36
Hainan	0.905	-1.17	970.3	6.36	3.15	-5.56
Chongqing	1.371	-3.41	1,177.0	3.95	2.63	-6.34
Sichuan	1.498	-2.10	1,265.7	-0.83	2.82	-3.98
Guizhou	3.188	-1.85	2,633.8	7.04	5.21	-3.15
Yunnan	1.708	-1.52	1,660.8	3.50	3.40	-4.31
Shaanxi	1.426	-3.39	1,364.6	-2.87	2.46	-7.09
Gansu	2.199	-2.61	2,487.0	-1.74	4.59	-3.03
Qinghai	3.121	1.51	4,007.9	5.42	3.64	5.96
Ningxia	4.099	-1.01	5,528.3	10.61	8.68	-3.19
Xinjiang	2.092	-1.06	1,232.3	3.47	2.91	-2.13

Sources: NBS.

Table 4B.3.(b) Energy Intensity Indicators by Province (continued)

3. 2007

Region	Energy Consumption per GDP		Electricity consumption per GDP Unit		Energy consumption per	
	Value (tce/10,000 yuan)	Changes (%)	Value (kwh/10,000 yuan)	Changes (%)	Value (tce/10,000 yuan)	Changes (%)
Beijing	0.714	-6.04	758.25	-3.66	1.188	-10.81
Tianjin	1.016	-4.90	1,017.15	-0.67	1.222	-8.33
Hebei	1.843	-4.02	1,579.76	2.86	3.870	-7.10
Shanxi	2.757	-4.52	2,543.87	7.46	5.420	-7.69
Inner Mongolia	2.305	-4.50	2,101.68	10.13	4.879	-9.22
Liaoning	1.704	-4.01	1,332.69	-2.91	2.649	-9.28
Jilin	1.520	-4.41	957.23	-3.40	2.370	-6.13
Heilongjiang	1.354	-4.09	908.52	-5.95	2.093	-5.90
Shanghai	0.833	-4.66	914.19	-5.20	1.006	-8.49
Jiangsu	0.853	-4.28	1,221.44	0.02	1.408	-7.65
Zhejiang	0.828	-4.18	1,246.97	-0.03	1.302	-5.36
Anhui	1.126	-4.11	1,116.40	1.90	2.632	-8.61
Fujian	0.875	-3.51	1,156.20	0.56	1.320	-3.83
Jiangxi	0.982	-4.01	993.12	1.40	2.301	-6.64
Shandong	1.175	-4.54	1,068.37	-0.06	1.890	-6.48
Henan	1.285	-4.11	1,302.24	3.55	3.453	-7.08
Hubei	1.403	-4.06	1,169.82	-1.49	3.020	-9.17
Hunan	1.313	-4.43	1,082.92	1.21	2.510	-7.99
Guangdong	0.747	-3.15	1,156.85	-1.30	0.980	-5.28
Guangxi	1.152	-3.31	1,278.73	2.14	2.612	-7.83
Hainan	0.898	-0.80	1,000.50	3.11	2.714	-2.63
Chongqing	1.333	-4.46	1,148.00	-4.10	2.410	-7.19
Sichuan	1.432	-4.44	1,232.10	-2.65	2.620	-7.10
Guizhou	3.062	-3.97	2,662.14	1.07	4.890	-4.61
Yunnan	1.641	-3.98	1,704.70	2.64	3.156	-7.11
Shaanxi	1.361	-4.54	1,340.24	-1.79	2.270	-7.81
Gansu	2.109	-4.09	2,537.33	2.02	4.293	-6.53
Qinghai	3.063	-2.20	4,173.16	4.12	3.470	-4.76
Ningxia	3.954	-3.52	5,706.63	3.23	8.124	-6.40
Xinjiang	2.027	-3.08	1,273.90	3.38	2.779	-5.18

Sources: NBS.

Figure 4B.4. Map of Energy Intensity by Province, 2006

Note: these data are based on provincial primary energy consumption (of commercial fuels) and GDP in current, nominal RMB.

Table 4B.4.1. Fuel Use for Power Generation by Province, 2002 (Mtce)

Planning Region	Province	Coal Products	Oil Products	Natural & Other Gas	Total
North	Beijing	4.96	0.20	0.47	5.64
	Tianjin	7.52	0.03	0.17	7.73
	Hebei	36.08	0.08	0.22	36.38
	Shanxi	29.79		0.04	29.84
	Inner Mongolia	22.98	0.03	0.31	23.32
Northeast	Liaoning	25.76	0.60	0.41	26.77
	Jilin	13.87	0.04	0.08	13.99
	Heilongjiang	18.36	0.13	0.35	18.84
East	Shanghai	17.04	0.93	2.07	20.04
	Jiangsu	40.52	0.26	0.00	40.78
	Zhejiang	20.87	1.74		22.61
	Anhui	14.46	0.02		14.47
	Fujian	9.54	0.18		9.72
	Jiangxi	7.63	0.03	0.01	7.67
	Shandong	38.20	0.66	0.00	38.86
South-Central	Henan	33.60	0.03	0.06	33.69
	Hubei	12.21	0.04	0.07	12.31
	Hunan	7.95	0.07	0.03	8.05
	Guangdong	29.42	11.29	0.10	40.82
	Guangxi	5.08	0.01		5.09
	Hainan				
Southwest	Chongqing	4.63	0.01		4.64
	Sichuan	14.03	0.04	0.23	14.30
	Guizhou	10.47			10.47
	Yunnan	8.27	0.01		8.28
	Xizang			0.01	
Northwest	Shaanxi	11.48	0.03		11.51
	Gansu	8.26	0.02	0.08	8.36
	Qinghai	1.99			1.99
	Ningxia				
	Xinjiang	7.01	0.03	0.31	7.35
National Total		468.38	18.24	5.20	491.82

Source: NBS, China Energy Statistical Yearbook, 2004.

Table 4B.4.2. Fuel Use for Power Generation by Province, 2003 (Mtce)

Region	Province	Coal Products	Oil Products	Natural & Other Gas	Total
East	Anhui	14.46	0.02	0.00	14.47
	Fujian	9.54	0.18	0.00	9.72
	Jiangsu	40.52	0.26	0.00	40.78
	Jiangxi	7.63	0.03	0.00	7.66
	Shandong	38.20	0.66	0.19	39.05
	Shanghai	17.04	0.93	2.03	20.00
	Zhejiang	20.87	1.74	0.00	22.61
East Total		148.26	3.81	2.22	154.29
North	Beijing	4.96	0.20	0.50	5.67
	Hebei	36.08	0.08	0.03	36.19
	Inner Mongolia	22.98	0.03	0.31	23.32
	Shanxi	29.79		0.05	29.85
	Tianjin	7.52	0.03	0.11	7.66
North Total		101.33	0.35	1.00	102.68
NorthEast	Heilongjiang	18.36	0.13	0.59	19.08
	Jilin	13.87	0.04	0.01	13.91
	Liaoning	25.76	0.60	0.25	26.61
NorthEast Total		57.99	0.76	0.85	59.61
NorthWest	Gansu	8.26	0.02	0.17	8.45
	Ningxia			0.00	0.00
	Qinghai	1.99		0.00	1.99
	Shaanxi	11.48	0.03	0.01	11.52
	Xinjiang	7.01	0.03	0.79	7.84
NorthWest Total		28.74	0.09	0.97	29.80
SouthCentral	Guangdong	29.42	11.29	0.09	40.81
	Guangxi	5.08	0.01	0.00	5.09
	Hainan			0.31	0.31
	Henan	33.60	0.03	0.00	33.63
	Hubei	12.21	0.04	0.06	12.30
	Hunan	7.95	0.07	0.00	8.02
SouthCentral Total		88.26	11.44	0.46	100.16
SouthWest	Chongqing	4.63	0.01	0.01	4.64
	Guizhou	10.47		0.00	10.47
	Sichuan	14.03	0.04	0.29	14.36
	Yunnan	8.27	0.01	0.33	8.60
SouthWest Total		37.39	0.05	0.62	38.07
(blank)	China	489.80	18.24	5.32	513.37
(blank) Total		489.80	18.24	5.32	513.37

Table 4B.4.3. Fuel Use for Power Generation by Province, 2004 (Mtce)

Region	Province	Coal Products	Oil Products	Natural & Other Gas	Total
East	Anhui	20.75		0.00	20.75
	Fujian	15.62	0.33	0.00	15.96
	Jiangsu	54.32	1.20	0.02	55.54
	Jiangxi	13.66	0.07	0.00	13.72
	Shandong	63.36		0.56	63.92
	Shanghai	19.85	1.19	2.24	23.28
	Zhejiang	28.62	3.35	0.00	31.97
East Total		216.18	6.14	2.82	225.14
North	Beijing	5.92	0.22	0.54	6.68
	Hebei	45.70	0.09	0.70	46.49
	Inner Mongolia	35.22		0.50	35.71
	Shanxi	39.75		0.55	40.30
	Tianjin	10.07	0.02	0.05	10.14
North Total		136.66	0.32	2.34	139.33
NorthEast	Heilongjiang	22.50	0.06	0.34	22.89
	Jilin	16.61	0.04	0.30	16.95
	Liaoning	34.32	0.38	1.94	36.64
NorthEast Total		73.42	0.49	2.57	76.48
NorthWest	Gansu	11.40	0.02	0.13	11.54
	Ningxia	9.80	0.00	0.00	9.80
	Qinghai	2.31		0.00	2.31
	Shaanxi	17.34	0.03	0.24	17.61
	Xinjiang	8.93	0.06	0.83	9.83
NorthWest Total		49.78	0.10	1.20	51.08
SouthCentral	Guangdong	42.97	14.70	0.14	57.81
	Guangxi	9.32		0.00	9.32
	Hainan	1.35	0.01	0.70	2.05
	Henan	50.37	0.10	0.00	50.48
	Hubei	17.93	0.16	0.10	18.19
	Hunan	15.70	0.04	0.00	15.74
SouthCentral Total		137.63	15.02	0.94	153.59
SouthWest	Chongqing	6.89	0.02	0.10	7.01
	Guizhou	18.88		0.00	18.88
	Sichuan	19.62	0.02	0.30	19.95
	Yunnan	5.31		0.00	5.31
SouthWest Total		50.70	0.05	0.40	51.14
(blank)	China	656.61	26.66	7.35	690.62
(blank) Total		656.61	26.66	7.35	690.62

Table 4B.4.4. Fuel Use for Power Generation by Province, 2005 (Mtce)

Region	Province	Coal Products	Oil Products	Natural & Other Gas	Total
East	Anhui	22.01		0.97	22.98
	Fujian	15.05	0.13	0.00	15.18
	Jiangsu	70.60	0.55	1.05	72.20
	Jiangxi	13.35	0.04	0.00	13.38
	Shandong	75.37		0.00	75.37
	Shanghai	20.33	1.18	2.66	24.16
	Zhejiang	34.28	3.14	0.08	37.51
East Total		250.99	5.03	4.75	260.78
North	Beijing	6.46	0.18	0.54	7.18
	Hebei	49.22	0.18	1.16	50.56
	Inner Mongolia	44.82	0.01	0.55	45.38
	Shanxi	46.77		1.90	48.67
	Tianjin	11.96		0.28	12.24
North Total		159.23	0.38	4.43	164.03
NorthEast	Heilongjiang	24.33	0.05	0.34	24.72
	Jilin	17.60	0.06	0.56	18.22
	Liaoning	34.49	0.25	0.42	35.16
NorthEast Total		76.42	0.35	1.33	78.10
NorthWest	Gansu	11.40	0.01	0.07	11.49
	Ningxia	11.21		0.00	11.21
	Qinghai	2.46	0.00	0.18	2.64
	Shaanxi	17.94	0.03	0.19	18.17
	Xinjiang	9.77	0.12	1.04	10.93
NorthWest Total		52.79	0.17	1.48	54.44
SouthCentral	Guangdong	47.81	13.40	0.18	61.39
	Guangxi	10.25	0.03	0.00	10.27
	Hainan	1.63	0.02	0.87	2.52
	Henan	55.53	0.11	0.29	55.93
	Hubei	19.51	0.11	0.07	19.69
	Hunan	12.23	0.06	0.00	12.28
SouthCentral Total		146.95	13.73	1.41	162.09
SouthWest	Chongqing	6.89	0.03	0.11	7.04
	Guizhou	23.01		0.00	23.01
	Sichuan	21.42	0.03	0.40	21.85
	Yunnan	14.35	0.03	0.51	14.88
SouthWest Total		65.67	0.09	1.02	66.78
(blank)	China	737.30	22.91	10.09	770.30
(blank) Total		737.30	22.91	10.09	770.30

Table 4B.4.5. Fuel Use for Power Generation by Province, 2006 (Mtce)

Region	Province	Coal Products	Oil Products	Natural & Other Gas	Total
East	Anhui	24.83	0.06	0.77	25.66
	Fujian	16.92	0.08	0.00	17.00
	Jiangsu	79.23	0.16	5.05	84.44
	Jiangxi	13.78	0.03	0.37	14.18
	Shandong	82.42	0.19	0.55	83.15
	Shanghai	19.60	0.94	2.96	23.50
	Zhejiang	43.30	1.38	1.33	46.01
East Total		280.08	2.84	11.03	293.94
North	Beijing	5.79	0.09	1.07	6.96
	Hebei	50.57	0.08	2.35	53.00
	Inner Mongolia	60.45	0.01	0.69	61.15
	Shanxi	52.41		1.79	54.20
	Tianjin	11.70		0.32	12.03
North Total		180.91	0.18	6.23	187.33
NorthEast	Heilongjiang	27.09	0.09	0.36	27.54
	Jilin	19.68	0.01	0.08	19.77
	Liaoning	38.25	0.31	1.75	40.31
NorthEast Total		85.02	0.41	2.19	87.61
NorthWest	Gansu	11.86	0.01	0.07	11.95
	Ningxia	13.90		0.00	13.90
	Qinghai	3.01	0.01	0.14	3.16
	Shaanxi	20.24	0.02	0.23	20.48
	Xinjiang	11.11	0.02	1.00	12.13
NorthWest Total		60.12	0.06	1.44	61.62
SouthCentral	Guangdong	53.10	10.26	1.08	64.44
	Guangxi	10.64	0.02	0.05	10.71
	Hainan	1.83	0.03	1.00	2.86
	Henan	58.56	0.17	0.14	58.88
	Hubei	22.70	0.05	0.10	22.86
	Hunan	17.59	0.05	0.30	17.94
SouthCentral Total		164.42	10.58	2.68	177.68
SouthWest	Chongqing	9.06	0.02	0.17	9.25
	Guizhou	28.71		0.00	28.71
	Sichuan	23.46	0.05	2.48	25.98
	Yunnan	19.86	0.04	0.67	20.58
SouthWest Total		81.09	0.11	3.32	84.53
(blank)	China	847.97	19.21	11.96	879.15
(blank) Total		847.97	19.21	11.96	879.15

Table 4B.5. Average Heat Rates of Fossil Fuel-Fired Power Plants^[1]

Year	Gross Generation Efficiency	Net Generation Efficiency	Gross Generation Heat Rate (gce/kWh)	Net Generation Heat Rate (gce/kWh)
1952	0.169		727	
1957	0.204		604	
1965	0.258	0.237	477	518
1966	0.267	0.247	461	498
1967	0.266	0.245	463	502
1968	0.265	0.245	464	503
1969	0.265	0.245	464	503
1970	0.266	0.245	463	502
1971	0.265	0.244	465	505
1972	0.265	0.244	464	504
1973	0.269	0.248	457	496
1974	0.273	0.252	450	488
1975	0.273	0.252	450	489
1976	0.274	0.253	449	487
1977	0.276	0.254	446	484
1978	0.283	0.261	434	471
1979	0.291	0.269	422	457
1980	0.298	0.275	413	448
1981	0.302	0.278	407	442
1982	0.304	0.281	404	438
1983	0.308	0.283	400	434
1984	0.309	0.285	398	432
1985	0.309	0.285	398	431
1986	0.309	0.285	398	432
1987	0.309	0.285	398	432
1988	0.310	0.285	397	431
1989	0.310	0.285	397	432
1990	0.314	0.288	392	427
1991	0.315	0.288	390	427
1992	0.319	0.293	386	420
1993	0.320	0.295	384	417
1994	0.323	0.297	381	414
1995	0.325	0.299	379	412
1996	0.326	0.300	377	410
1997	0.328	0.301	375	408
1998	0.330	0.304	373	404
1999	0.333	0.308	369	399
2000	0.339	0.314	363	392
2001	0.345	0.319	357	385
2002	0.346	0.321	356	383
2003	0.346	0.325	355	379
2004	0.352	0.329	349	374
2005	0.359	0.332	343	370
2006	0.360	0.335	342	367

[1] For power plants with ≥6 MW of installed capacity, which in the 1980s accounted for about 89% of installed capacity and 97% of gross thermal electricity generation, and in the 1990s for 94% and 99%, respectively.

Source: NBS, China Energy Statistical Yearbook, various years; Energy Research Institute.

Table 4B.6. Power Sector In-Plant Electricity Consumption

Year	Overall		Hydro		Fossil	
	Percent of Gross Generation ^[1]	Consumption (TWh) ^[2]	Percent of Gross Generation ^[1]	Consumption (TWh) ^[2]	Percent of Gross Generation ^[1]	Consumption (TWh) ^[2]
1952	6.17%	0.45	0.22%	0.003	7.42%	0.45
1957	5.99%	1.16	0.14%	0.01	7.17%	1.04
1965	6.98%	4.72	0.21%	0.02	7.98%	4.56
1966	6.55%	5.40	0.18%	0.02	7.50%	5.24
1967	6.70%	5.19	0.18%	0.02	7.72%	4.96
1968	6.75%	4.83	0.22%	0.03	7.71%	4.63
1969	6.65%	6.25	0.21%	0.03	7.80%	6.08
1970	6.54%	7.58	0.17%	0.03	7.78%	7.42
1971	6.68%	9.25	0.17%	0.04	7.89%	8.94
1972	6.68%	10.18	0.17%	0.05	7.88%	9.74
1973	6.26%	10.44	0.15%	0.06	7.83%	10.01
1974	6.19%	10.45	0.16%	0.07	7.87%	10.03
1975	6.23%	12.20	0.15%	0.07	7.91%	11.72
1976	6.34%	12.88	0.17%	0.08	7.88%	12.41
1977	6.41%	14.32	0.19%	0.09	7.83%	13.77
1978	6.61%	16.96	0.21%	0.09	7.71%	16.35
1979	6.54%	18.44	0.20%	0.10	7.63%	17.69
1980	6.44%	19.36	0.19%	0.11	7.65%	18.54
1981	6.40%	19.80	0.20%	0.13	7.76%	18.92
1982	6.32%	20.71	0.21%	0.16	7.71%	19.53
1983	6.21%	21.82	0.23%	0.20	7.78%	20.62
1984	6.28%	23.68	0.25%	0.22	7.70%	22.35
1985	6.42%	26.37	0.28%	0.26	7.78%	24.76
1986	6.54%	29.40	0.28%	0.26	7.83%	27.80
1987	6.66%	33.12	0.31%	0.31	7.88%	31.29
1988	6.69%	36.47	0.34%	0.37	7.94%	34.61
1989	6.81%	39.82	0.30%	0.36	8.12%	37.86
1990	6.90%	42.87	0.30%	0.38	8.22%	40.69
1991	6.94%	47.02	0.32%	0.40	8.13%	44.93
1992	7.00%	52.79	0.37%	0.49	8.08%	50.32
1993	6.96%	58.22	0.41%	0.62	8.08%	55.40
1994	6.90%	64.02	0.42%	0.70	7.99%	59.69
1995	6.78%	68.27	0.37%	0.69	7.95%	64.18
1996	6.88%	74.28	0.51%	0.95	7.94%	69.70
1997	6.80%	77.13	0.51%	0.99	7.81%	72.24
1998	6.66%	77.10	0.47%	0.96	7.71%	72.38
1999	6.50%	80.15	0.55%	1.17	7.51%	75.46
2000	6.28%	85.94	0.49%	1.19	7.31%	80.99
2001	6.24%	92.59	0.46%	1.20	7.25%	87.32
2002	6.15%	101.72	0.49%	1.41	7.10%	95.11
2003	6.07%	115.65	0.55%	1.55	6.93%	109.42
2004	5.95%	130.56	0.47%	1.56	6.85%	124.01
2005	5.87%	146.60				
2006	5.93%	169.59				

[1] Figures for years before 1971 are for plants with installed capacities ≥ 500 kW, while those for 1971 and later years are for plants with installed capacities ≥ 6 MW.

[2] Power plant consumption is calculated as the product of gross generation and rate of power plant electricity consumption. Data for power plant consumption is for plants 6 MW and over. Thermal power plants under 6 MW accounted for about 10% of installed thermal capacity and less than 5% of gross thermal generation from the late 1970s through the 1980s, and for about 6% and 1% respectively by the late 1990s. In 1983 hydropower plants with installed capacities < 12 MW accounted for about 22% of installed hydro capacity and 8% of gross hydro generation. Since the shares of electricity generated by thermal and hydro plants were about 80% and 20% respectively through the 1980s, the losses accounted for here apply to more than 90% of total generation. If loss rates at all of the smaller plants were assumed to be about 10%, then the overall rate of power plant consumption for power plant consumption would increase by less than one percentage point.

N.B. Percentages of gross hydro and fossil generation in 2005 and 2006 are not available.

Source: NBS, China Energy Statistical Yearbook, various years; Energy Research Institute.

Table 4B.7. Rural Energy: Available Energy Sources and Consumption (Mtce)

1. Rural Energy: Non Commercial Energy Consumption for Rural Residential (Mtce)

National	Biogas	Stalks	Firewood
2000	1.62	123.60	80.52
2004	3.99	145.80	120.43
2005	4.93	159.60	103.10
2006	5.09	177.91	96.86

Source: NBS, China Energy Statistical Yearbook, various years.

2. Available Energy and Household Energy Use

Energy Source	1979			1987		
	Available Energy ^[1]	Household Consumption	Balance	Available Energy ^[1]	Household Consumption	Balance
Crop Stalk	183.60	113.69	69.91	268.31	130.32	137.99
Dung Cake	129.43	6.32	123.11	91.05	3.24	87.81
Firewood	66.79	103.77	-36.98	76.93	132.63	-55.70
Biomass Energy Subtotal	379.82	223.78	156.04	436.29	266.19	170.10
Electricity	4.79	3.10	1.69	12.12	4.98	7.14
Coal	71.70	32.58	39.12	211.49	59.58	151.91
Oil Products ^[2]		1.51			1.89	
Commercial Energy Subtotal	76.49	37.19	40.81	223.61	66.45	159.05
Total Energy	456.31	260.97	195.34	659.90	332.64	327.26

[1] As estimated by the National Rural Energy Planning Group. Available crop stalk (0.48 tce/tonne) is an estimated fraction of annual crop production, and available firewood (0.57 tce/tonne) is estimated sustainable output. Available electricity is all generation from small hydro stations (rural grids), and available coal is the output of rural mines.

[2] Household oil use is kerosene and LPG. In practice, penetration of LPG into rural areas is very low.

[3] Agriculture, transportation, rural industry, and services.

Source: EB, National Rural Energy Planning, 1990; Energy in China, 1992; China Energy Annual Review, 1994; Energy Research Institute.

Table 4B.7. Rural Energy: Available Energy Sources and Consumption (Mtce) (continued)

3. Household and Production Energy Use

Energy Source	1980			1985		
	Production	Household	Total	Production	Household	Total
	Activity ^[3] Consumption			Activity ^[3] Consumption		
Crop Stalk		117.00	117.00		123.50	123.50
Firewood	7.40	103.80	111.20	11.30	110.20	121.50
Biomass Energy Subtotal	7.40	220.80	228.20	11.30	233.70	245.00
Electricity	16.59	2.61	19.20	19.11	5.01	24.12
Coal	29.73	37.07	66.80	96.63	57.07	153.70
Oil Products ^[2]	14.03	1.27	15.30	14.26	1.22	15.48
Commercial Energy Subtotal	60.35	40.95	101.30	130.00	63.30	193.30
Total Energy	67.75	261.75	329.50	141.30	297.00	438.30

Energy Source	1990			1991		
	Production	Household	Total	Production	Household	Total
	Activity ^[3] Consumption			Activity ^[3] Consumption		
Crop Stalk		131.60	131.60		133.55	133.55
Firewood	15.25	116.15	131.40	16.00	104.85	120.85
Biomass Energy Subtotal	15.25	247.75	263.00	16.00	238.40	254.40
Electricity	31.66	7.14	38.80	36.84	9.16	46.00
Coal	149.81	64.30	214.11	154.70	71.55	226.25
Oil Products ^[2]	26.49	1.21	27.70	28.75	1.30	30.05
Commercial Energy Subtotal	207.96	72.65	280.61	220.29	82.01	302.30
Total Energy	223.21	320.40	543.61	236.29	320.41	556.70

[1] As estimated by the National Rural Energy Planning Group. Available crop stalk (0.48 tce/tonne) is an estimated fraction of annual crop production, and available firewood (0.57 tce/tonne) is estimated sustainable output. Available electricity is all generation from small hydro stations (rural grids), and available coal is the output of rural mines.

[2] Household oil use is kerosene and LPG. In practice, penetration of LPG into rural areas is very low.

[3] Agriculture, transportation, rural industry, and services.

Source: EB, National Rural Energy Planning, 1990; Energy in China, 1992; China Energy Annual Review, 1994; Energy Research Institute.

Table 4B.7. Rural Energy: Available Energy Sources and Consumption (Mtce) (continued)

3. Household and Production Energy Use (continued)

Energy Source	1992			1993		
	Production	Household	Total	Production	Household	Total
	Activity ^[3] Consumption			Activity ^[3] Consumption		
Crop Stalk		135.50	135.50		137.45	137.45
Firewood	16.82	93.47	110.29	16.82	93.48	110.30
Biomass Energy Subtotal	16.82	228.97	245.79	16.82	230.93	247.75
Electricity	42.00	11.20	53.20	47.18	13.24	60.42
Coal	159.56	78.91	238.47	164.45	86.18	250.63
Oil Products ^[2]	30.98	1.38	32.36	33.20	1.50	34.70
Commercial Energy Subtotal	232.54	91.49	324.03	244.83	100.92	345.75
Total Energy	249.36	320.46	569.82	261.65	331.85	593.50

Table 4B.7. Rural Energy: Available Energy Sources and Consumption (Mtce) (continued)

4. Household and Production Energy Use

Energy Source	1994			1995		
	Production Activity ^[3] Consumption	Household Consumption	Total Energy Consumption	Production Activity ^[3] Consumption	Household Consumption	Total Energy Consumption
Crop Stalk		137.45	137.45		129.00	129.00
Firewood	16.80	93.50	110.30		92.39	92.39
Biomass Energy Subtotal	16.80	230.95	247.75		221.39	221.39
Electricity	52.35	15.25	67.60	68.48	17.45	85.93
Coal	169.30	93.50	262.80	207.91	77.40	285.31
Oil Products ^[2]	35.45	1.60	37.05	34.39	1.60	35.99
Commercial Energy Subtotal	257.10	110.35	367.45	310.78	96.45	407.23
Total Energy	273.90	341.30	615.20	310.78	317.84	628.62

Energy Source	1996			1998		
	Production Activity ^[3] Consumption	Household Consumption	Total Energy Consumption	Production Activity ^[3] Consumption	Household Consumption	Total Energy Consumption
Crop Stalk		120.00	120.00		122.80	122.80
Biogas					1.29	1.29
Firewood	16.34	82.99	99.33	15.17	84.01	99.18
Biomass Energy Subtotal	16.34	202.99	219.33	15.17	208.10	223.27
Electricity	68.18	29.13	97.31	68.27	29.82	98.09
Coal	178.00	100.00	278.00	182.48	116.71	229.19
Oil Products ^[2]	45.17	1.60	46.77	41.65	6.46	48.11
Commercial Energy Subtotal	291.35	130.73	422.08	292.40	152.99	445.39
Total Energy	307.69	333.72	641.41	307.57	361.09	668.66

[2] Household oil use is kerosene and LPG. In practice, penetration of LPG into rural areas is very low.

[3] Agriculture, transportation, rural industry, and services.

Source: EB, National Rural Energy Planning, 1990; Ministry of Energy, 1992; Energy Research Institute.

Table 4B.8. Urban Household Gas Access^[1]

Year	Total Number of Cities	Number of Cities in which Gas Available	Population Using Gas (million persons)				Households Using Gas (million households) ^[2]	Total Urban Population ^[3] (millions)	Percentage of Total Urban Population Using Gas ^[4]
			LPG	Coal Gas	Natural Gas	Total			
1980									
1981	225	64				16.72			8.3%
1984									
1985	324	133	15.34	9.11	2.81	27.26		212.28	12.8%
1986								233.15	
1987	371		23.99	11.77	6.34	42.09		262.31	16.0%
1988	424	247	27.64	13.57	7.48	48.70		298.22	16.3%
1989	441	259	31.56	14.98	8.96	55.50		295.40	18.8%
1990	467		35.79	16.74	9.72	62.25	17.79	301.95	20.6%
1991	479	416	40.84	18.67	10.72	70.22	20.41	312.03	22.5%
1992	517		47.96	21.81	11.19	80.97	24.03	321.75	25.2%
1993	570		57.70	24.90	11.80	94.39	28.52	331.73	28.5%
1994	622		67.45	28.89	12.73	109.07	33.25	341.69	31.9%
1995	640		83.55	32.53	13.49	129.57	40.12	351.74	36.8%
1996	666		88.64	34.90	14.70	138.24	43.20	373.04	37.1%
1997	668		93.46	37.35	16.56	147.37	46.20	394.49	37.4%
1998	668		99.92	37.46	19.08	156.47	49.52	416.08	37.6%
1999	667		103.36	39.18	22.25	164.80	52.48	437.48	37.7%
2000	663		111.07	39.44	25.81	176.32	56.33	459.06	38.4%
2001	662		140.09	43.49	32.40	215.98	69.67	480.64	44.9%
2002	660		154.31	45.41	36.86	236.58	77.82	502.12	47.1%
2003	660		168.34	47.92	43.20	259.46	86.20	523.76	49.5%
2004	661		175.59	46.54	56.28	278.41	93.42	542.83	51.3%
2005	661		180.13	43.69	71.04	294.86	99.61	562.12	52.5%
2006	656		171.00	40.67	83.19	294.86	99.95	577.06	51.1%

[1] Piped coal and natural gas, and LPG. The percentages here are calculated from statistics on population and household statistics and some differ from officially reported percentages.

[2] Average urban household size has been declining, from 4.24 in 1981 to 3.04 in 2002.

[3] Reported non-agricultural population in urban areas, excluding population in outlying counties.

[4] Total population registered as living in urban areas, excluding population in outlying counties. Calculated from other data, except 1981 figure which is reported in statistics.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; NBS, China Urban Statistical Yearbook, various years; EB, China Social Statistical Materials, various years; EB, China Urban Economic and Social Yearbook, various years; Energy Research Institute.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province

1. 1998

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
					Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing	2.05	1,422	2,181	0.69	169	0.326	1.32	2.63	1.94
	Tianjin	1.36	1,476	3,471	0.16	62	0.140	0.85	1.20	2.39
	Hebei	1.13	2,239	431	0.43	187	0.031	2.28	4.48	0.19
	Shanxi	1.91	2,310	149	0.52	25	0.020	2.46	1.24	0.13
	Inner Mongolia	0.16	612		0.07	41		0.64	1.63	
Northeast	Liaoning	1.98	4,208	2,958	0.81	389	0.255	4.08	6.00	3.44
	Jilin	0.82	1,764	619	0.18	151	0.087	1.57	3.13	0.38
	Heilongjiang	2.04	1,905	420	0.24	444	0.036	1.83	5.38	0.39
East	Shanghai	6.92	6,734		1.91	179		5.55	3.30	
	Jiangsu	1.65	3,470		3.32	620		2.71	7.98	
	Zhejiang	0.34	764		0.25	578		0.42	5.04	
	Anhui	1.02	1,762		0.31	353		1.59	3.08	
	Fujian	0.10	367		0.04	268		0.24	3.07	
	Jiangxi	0.37	1,236		0.38	61		1.14	1.76	
	Shandong	1.26	3,563	949	0.41	247	0.784	3.00	7.96	0.31
South-Central	Henan	0.16	1,265	2,148	4.43	120	0.539	1.06	3.15	1.55
	Hubei	1.31	2,019		0.24	228		1.52	7.92	
	Hunan	0.38	800		0.74	195		0.67	4.01	
	Guangdong	0.68	1,391	269	0.10	2,844	0.004	1.36	12.69	0.05
	Guangxi		149		0.03	174		0.14	3.44	
	Hainan		144		0.01	75		0.17	1.00	
Southwest	Chongqing			4,448		62	1.038		0.27	2.79
	Sichuan		341	6,857		59	3.548	0.30	0.90	4.78
	Guizhou	0.35	886	6	0.06	25	0.004	0.65	0.79	0.02
	Yunnan	0.65	1,021	26	0.13	65	0.002	0.85	1.18	0.09
	Xizang					1			0.10	
Northwest	Shaanxi	0.15	368	414	0.10	49	0.029	0.42	1.84	0.60
	Gansu	0.56	279		0.06	32		0.55	0.75	
	Qinghai		17	75	0.00	10	0.015	0.03	0.31	0.03
	Ningxia		202		0.03	21		0.09	0.62	
	Xinjiang			4		239	0.025		3.05	0.001
National Total		27.32	42,725	25,429	16.76	7,973	6.883	37.46	99.92	19.08

Source: NBS, China Statistical Yearbook, 1999.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province (continued)

2. 2001

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
					Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing		382	5,328	0.34	171	1.674	0.62	4.40	3.55
	Tianjin	1.90	1,348	4,911	0.15	153	0.388	0.77	1.52	3.48
	Hebei	1.82	3,292	703	0.47	283	0.055	3.20	6.42	0.35
	Shanxi	1.51	2,902	302	0.56	51	0.056	3.21	1.02	0.38
	Inner Mongolia	0.24	816		0.07	114		0.83	2.18	
Northeast	Liaoning	1.91	4,339	3,169	0.55	388	0.308	4.11	6.46	4.28
	Jilin	0.89	1,876	1,431	0.14	158	0.195	1.47	3.98	0.99
	Heilongjiang	1.78	1,898	564	0.30	198	0.152	2.36	5.79	0.60
East	Shanghai	9.84	7,442	2,363	2.20	491	0.330	6.05	5.18	1.39
	Jiangsu	2.15	4,326		3.76	786		3.73	12.00	
	Zhejiang	1.01	1,242		0.11	792		0.87	10.41	
	Anhui	0.46	1,974		0.25	379		1.85	4.37	
	Fujian	0.04	246		0.01	281		0.08	4.99	
	Jiangxi	1.44	1,573	73	0.35	60	0.600	1.29	1.78	1.13
	Shandong	1.83	5,120	733	0.42	350	0.347	3.94	11.36	0.95
South-Central	Henan	2.11	1,665	3,147	0.77	154	0.271	1.08	4.48	2.36
	Hubei	2.31	2,877	92	0.21	314	0.001	1.89	11.27	0.02
	Hunan	1.54	1,182		0.49	248		0.81	5.08	
	Guangdong	0.92	1,516	271	0.41	2,728	0.084	1.75	20.08	0.17
	Guangxi	0.10	185		0.04	185		0.17	4.13	
	Hainan					71			1.12	
Southwest	Chongqing	0.02	98	5,172	0.00	67	0.931	0.01	0.46	3.54
	Sichuan	3.55	386	8,933	1.26	117	4.208	0.31	1.07	6.36
	Guizhou	0.45	1,275	18	0.09	31	0.005	0.81	1.20	0.03
	Yunnan	1.34	1,360		0.18	140	0.000	1.46	1.44	0.02
	Xizang					19			0.14	
Northwest	Shaanxi	0.15	288	1,202	0.10	98	0.296	0.46	2.26	1.53
	Gansu	0.17	243	254	0.03	722	0.049	0.20	0.85	0.60
	Qinghai			222		12	0.044		0.29	0.05
	Ningxia		202	189	0.03	18	0.464	0.10	0.79	0.06
	Xinjiang	27.65	61	555	0.41	181	0.093	0.05	3.57	0.56
National Total		67.11	50,114	39,626	13.69	9,758	10.552	43.49	140.09	32.40

Source: NBS, China Statistical Yearbook, 2002.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province (continued)

3. 2002

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
					Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing		395	5,743	0.34	286	2.048	0.63	3.86	4.97
	Tianjin	1.90	1,384	5,026	0.22	96	0.402	0.90	1.26	3.70
	Hebei	1.77	3,401	1,359	0.69	313	0.160	3.60	6.68	0.69
	Shanxi	1.67	3,102	326	0.70	257	0.058	3.52	1.56	0.47
	Inner Mongolia	1.88	1,022		0.08	111		0.92	2.27	0.00
Northeast	Liaoning	2.19	4,718	3,355	0.61	378	0.307	5.12	6.98	4.42
	Jilin	0.72	1,903	1,478	0.13	173	0.198	1.51	4.32	1.02
	Heilongjiang	2.12	2,198	732	0.32	179	0.165	2.32	5.93	0.71
East	Shanghai	9.84	7,851	2,896	2.33	470	0.433	6.02	5.18	1.50
	Jiangsu	2.16	5,300		7.89	1,252		3.61	16.00	0.00
	Zhejiang	1.04	1,520	12	0.12	923	0.000	0.82	11.10	0.00
	Anhui	0.46	2,138		0.25	464		1.98	5.01	0.00
	Fujian	0.04	263		0.01	305		0.08	5.77	0.00
	Jiangxi	1.57	1,501		0.36	131		1.35	3.13	0.00
	Shandong	1.48	5,568	1,798	0.43	432	0.608	3.81	13.79	1.53
South-Central	Henan	2.52	1,708	3,690	0.91	180	0.353	1.29	5.13	2.49
	Hubei	1.63	2,158	391	0.15	318	0.008	1.40	12.47	0.05
	Hunan	11.99	1,220		2.02	298		0.91	5.37	0.00
	Guangdong	1.39	1,705	392	0.17	3,101	0.108	1.96	20.77	0.16
	Guangxi	0.10	262		0.04	243		0.17	4.39	0.00
	Hainan			269		71	0.009	0.00	1.07	0.14
Southwest	Chongqing	0.02	132	6,451	0.01	83	1.107	0.02	0.57	3.95
	Sichuan	3.55	391	10,383	1.33	125	5.238	0.32	1.20	7.17
	Guizhou	0.60	1,453	18	0.11	47	0.005	0.99	1.70	0.03
	Yunnan	0.76	1,312		0.17	84		1.46	1.55	0.00
	Xizang					19		0.00	0.14	0.00
Northwest	Shaanxi	0.15	147	1,511	0.05	85	0.453	0.34	1.86	2.05
	Gansu	0.17	261	294	0.03	722	0.051	0.19	0.92	0.69
	Qinghai			295		15	0.267	0.00	0.38	0.06
	Ningxia		312	357	0.03	18	0.479	0.10	0.85	0.08
	Xinjiang	6.24	61	878	0.41	184	0.138	0.06	3.09	0.99
National Total		57.96	53,383	47,652	19.89	11,364	12.593	45.41	154.31	36.86

Source: NBS, China Statistical Yearbook, 2003.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province (continued)

4. 2003

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Liquefied Petroleum Gas (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
						Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing		195		6,773	0.27	384	2.385	0.26	3.97	5.38
	Tianjin	1.85	1,423	157.4	5,380	0.26	80	0.480	0.96	1.18	3.92
	Hebei	1.61	3,305	120	1,740	0.70	337	0.121	3.61	7.08	0.87
	Shanxi	1.88	3,452	0.5	206	0.90	49	0.039	3.70	1.75	0.31
	Inner Mongolia	1.90	824	39	250	0.09	134	0.000	0.74	2.60	0.28
Northeast	Liaoning	2.31	4,871	290.2	4,286	0.69	432	0.303	5.42	7.34	4.57
	Jilin	0.72	1,925	101.9	2,141	0.21	203	0.191	1.59	4.38	1.23
	Heilongjiang	2.18	2,201	153.2	1,109	0.36	222	0.182	2.56	5.84	0.84
East	Shanghai	11.34	8,561		3,628	2.51	429	0.497	5.93	5.06	1.80
	Jiangsu	2.20	5,995	2765.5	715	8.02	1,358	0.017	4.06	16.74	0.10
	Zhejiang	0.92	2,381	2212	92	0.34	1,185	0.010	1.57	11.04	0.12
	Anhui	0.45	2,204	329.5	216	0.20	333	0.000	2.03	5.17	0.03
	Fujian	0.04	262	1710.1		0.01	301		0.09	5.73	
	Jiangxi	1.95	1,663	92.6	61	0.40	150	0.000	1.39	3.57	0.00
	Shandong	1.46	6,168	737.2	3,812	0.47	545	0.837	4.22	16.14	2.26
South-Central	Henan	2.06	1,520	69.4	3,709	0.85	175	0.431	1.39	5.08	2.83
	Hubei	1.61	2,264	1340.1	393	0.16	313	0.009	1.37	12.30	0.07
	Hunan	1.59	1,141	625.6		0.44	231		1.01	5.72	
	Guangdong	1.41	2,101	3691.5	398	1.29	334	0.022	2.47	27.02	0.18
	Guangxi	0.11	315	509.6		0.04	250		0.23	4.67	
	Hainan			3.5	356		80	0.023		1.11	0.42
Southwest	Chongqing	0.02	132	5	7,229	0.00	63	1.104	0.02	0.46	4.38
	Sichuan	3.55	411	112.8	10,945	1.20	142	5.595	0.32	1.38	8.63
	Guizhou	0.81	1,489	14.4	18	0.14	57	0.062	1.00	1.85	0.02
	Yunnan	0.76	1,413	25.7	98	0.17	94	0.145	1.44	1.75	0.05
	Xizang						1			0.13	
Northwest	Shaanxi		147		1,755	0.01	107	0.503	0.15	3.37	2.40
	Gansu	0.15	281		375	0.03	55	0.097	0.25	1.92	0.86
	Qinghai				370		15	0.381		0.36	0.08
	Ningxia		314		430	0.03	22	0.505	0.11	0.82	0.17
	Xinjiang	6.24	61	13.4	1,363	0.41	172	0.225	0.06	2.86	1.42
	National Total	49.13	57,017	15349.1	57,845	20.21	11,264	14.164	47.92	168.34	43.20

Source: NBS, China Statistical Yearbook, 2004.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province (continued)

5. 2004

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Liquefied Petroleum Gas (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
						Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing		194	292	7,164	0.17	431	2.702	0.28	4.18	7.38
	Tianjin	1.85	1,432	184.3	5,715	0.26	70	0.624	0.99	1.19	4.05
	Hebei	1.70	3,400	128.2	2,040	0.74	337	0.171	3.79	7.09	1.18
	Shanxi	3.54	3,517	1.3	350	0.78	39	0.106	3.96	1.68	0.44
	Inner Mongolia	1.95	994	39	464	0.07	144	0.040	0.89	2.67	0.40
Northeast	Liaoning	2.14	4,535	198.4	5,214	0.61	456	0.377	4.75	7.27	5.76
	Jilin	0.87	2,075	124.6	2,284	0.12	211	0.211	1.54	4.47	1.48
	Heilongjiang	2.19	2,409	156.8	1,099	0.42	237	0.169	2.75	6.03	0.89
East	Shanghai	11.94	8,245		4,911	2.07	447	0.983	7.19	7.03	3.97
	Jiangsu	28.17	5,621	1958.5	4,727	10.28	1,227	0.210	3.34	17.12	1.79
	Zhejiang	0.89	2,694	2909.3	297	0.34	1,051	0.031	1.11	11.44	0.58
	Anhui	0.40	1,915	319.5	906	0.19	590	0.038	1.29	5.17	1.05
	Fujian	0.04	273	1918		0.02	347		0.09	5.98	
	Jiangxi	1.45	1,886	131.8	285	0.46	176	0.001	1.55	3.88	0.13
	Shandong	1.40	5,563	836.5	4,572	0.47	517	0.940	3.97	17.51	2.59
South-Central	Henan	2.12	1,597	108.8	4,783	0.96	172	0.366	1.42	5.44	3.47
	Hubei	1.65	2,265	1266.7	622	0.17	315	0.059	1.41	12.24	0.14
	Hunan	1.67	1,590	907		0.44	300	0.015	1.02	5.93	
	Guangdong	1.41	1,863	7059	506	0.64	3,121	0.049	1.56	29.08	0.20
	Guangxi	0.11	318	693.1	70	0.04	272	0.000	0.24	5.06	0.01
	Hainan			3.5	399		68	0.046		0.91	0.48
Southwest	Chongqing			2.5	7,902		96	1.352		0.75	4.58
	Sichuan	3.55	423	108.2	11,636	1.14	164	5.827	0.32	1.39	9.12
	Guizhou	0.96	1,549	23.8	18	0.17	60	0.062	1.11	1.90	0.02
	Yunnan	0.76	1,351	132.9	110	0.17	95	0.145	1.27	1.84	0.05
	Xizang						1			0.13	
Northwest	Shaanxi		21		1,993	0.05	51	0.592	0.30	2.41	3.22
	Gansu	0.15	316		474	0.05	73	0.132	0.26	2.09	0.89
	Qinghai			615	490		17	0.675		0.36	0.31
	Ningxia		314		495	0.03	27	0.637	0.11	0.88	0.27
	Xinjiang	12.05	63		1,888	0.54	155	0.372	0.05	2.47	1.86
National Total		82.99	56,419	20118.8	71,411	21.37	11,267	16.934	46.54	175.59	56.28

Source: NBS, China Statistical Yearbook, 2005.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province (continued)

6. 2005

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Liquefied Petroleum Gas (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
						Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing		115	176	7,124	0.20	374	3.174	0.22	3.41	8.80
	Tianjin	1.85	1,461	173.9	6,751	0.29	62	0.690	0.97	1.23	4.12
	Hebei	1.70	3,606	125.2	2,550	0.78	327	0.254	4.01	7.05	1.42
	Shanxi	3.83	3,483	1.4	441	0.82	42	0.108	3.95	1.70	0.50
	Inner Mongolia	1.95	1,008	80.2	619	0.07	138	0.094	0.93	2.95	0.50
Northeast	Liaoning	1.91	4,897	436.5	4,979	0.64	403	0.368	5.32	7.13	5.67
	Jilin	0.87	2,138	200.6	2,776	0.14	184	0.173	1.69	4.93	1.67
	Heilongjiang	2.32	2,434	156.8	1,193	0.40	229	0.196	2.89	6.12	1.04
East	Shanghai	11.34	8,469		6,370	2.00	453	1.750	6.62	7.11	5.22
	Jiangsu	38.11	5,321	2530.5	8,051	12.91	1,129	0.876	2.34	17.65	3.80
	Zhejiang	0.29	1,140	3303.7	2,893	0.28	1,061	0.104	0.83	11.35	1.19
	Anhui	0.36	644	1010.1	2,974	0.09	614	0.116	0.67	5.41	2.08
	Fujian	0.08	228	2262.8		0.02	378		0.11	6.04	
	Jiangxi	1.23	1,589	266.1	477	0.32	175	0.011	1.31	4.12	0.38
	Shandong	1.26	5,743	1025.5	5,937	0.48	572	1.167	3.57	18.36	3.81
South-Central	Henan	2.02	1,221	205	5,755	1.18	226	0.533	1.42	5.74	3.99
	Hubei	1.21	158	575.4	3,977	0.09	311	0.174	0.22	11.42	2.64
	Hunan	1.67	695	1260.6	1,328	0.44	295	0.056	0.75	6.48	0.62
	Guangdong	1.41	2,148	3537.8	1,173	0.29	4,102	0.716	1.63	32.23	0.79
	Guangxi	0.14	440	940.3	105	0.04	316	0.001	0.25	5.51	0.01
	Hainan			12.5	534		67	0.064		1.13	0.21
Southwest	Chongqing				7,621		96	1.646		0.72	5.09
	Sichuan	3.55	442	44.2	12,275	1.28	164	5.985	0.33	1.52	9.67
	Guizhou	1.01	1,931	99.2	18	0.19	54	0.062	1.25	1.89	0.02
	Yunnan	0.78	1,493	141.2	110	0.20	70	0.145	1.77	1.41	0.05
	Xizang						2	0.008		0.03	0.154
Northwest	Shaanxi		18	36	2151	0.04	122	0.763	0.27	2.43	3.59
	Gansu	0.06	188		147	0.04	72	0.041	0.24	1.42	1.18
	Qinghai				501		14	0.636		0.37	0.33
	Ningxia		314		1,027	0.03	23	0.682	0.09	0.90	0.34
	Xinjiang	15.26	80	60.4	2,187	2.32	147	0.457	0.05	2.40	2.20
	National Total	94.24	51,404	18661.9	92,043	25.58	12,220	21.050	43.69	180.13	71.04

Source: NBS, China Statistical Yearbook, 2006.

Table 4B.9. Supply and Consumption of Coal Gas, LPG, and Natural Gas by Province (continued)

7. 2006

Planning Region	Province	Coal Gas Capacity (million m ³ /person)	Coal Gas Pipelines (km)	Liquefied Petroleum Gas (km)	Natural Gas Pipelines (km)	Gas Supply (billion m ³)			Population with Access (million people)		
						Coal Gas	LPG (kt)	Natural Gas	Coal Gas	LPG	Natural Gas
North	Beijing				261	8,630	0.10	418	3.838		9.57
	Tianjin	1.00	2		68	8,515	0.17	21	0.926	0.85	4.78
	Hebei	1.76	3,968		120	3,143	0.70	280	0.380	4.16	1.93
	Shanxi	3.53	3,838		240	886	0.95	66	0.507	4.12	0.69
	Inner Mongolia	1.95	1,024		97	740	0.06	100	0.184	0.79	3.16
Northeast	Liaoning	1.69	4,702		478	5,610	0.54	487	0.535	4.74	6.30
	Jilin	0.92	2,208		165	3,052	0.16	183	0.299	1.59	1.98
	Heilongjiang	2.42	2,596		8	1,458	0.39	292	0.230	3.01	5.60
East	Shanghai	10.13	8,778			8,349	2.18	459	2.365	6.22	7.03
	Jiangsu	37.78	3,836	1547	11,199		14.20	1,042	1.559	1.77	14.09
	Zhejiang	0.06	710	2859	4,366		0.02	1,058	0.230	0.29	11.63
	Anhui	0.04	605	460	3,890		0.06	605	0.308	0.69	5.27
	Fujian	0.08	196	2519	43		0.02	388	0.001	0.13	6.57
	Jiangxi	1.23	1,902	368	881		0.39	165	0.023	1.15	4.23
	Shandong	1.89	5,482	1143	7,709		0.35	564	1.294	3.37	14.71
South-Central	Henan	4.62	1,770	192	7,988		0.55	234	0.765	1.50	5.27
	Hubei	0.02	328	470	5,641		0.01	294	0.350	0.31	9.89
	Hunan	1.35	274	184	2,956		0.46	287	0.244	0.30	6.59
	Guangdong	1.93	2,483	4857	1,950		0.42	3,759	0.287	2.02	32.14
	Guangxi	0.17	455	1025	480		0.05	324	0.012	0.26	5.49
	Hainan			18	793			67	0.109		1.01
Southwest	Chongqing					9,377		74	1.739		0.86
	Sichuan	5.11	453	53	15,087		1.46	197	4.781	0.33	1.37
	Guizhou	1.30	2,465	89	53		0.22	50	0.007	1.34	1.88
	Yunnan	0.76	1,675	147	134		0.19	132	0.007	2.23	1.20
	Xizang							813,000			0.16
Northwest	Shaanxi			41	2913			45	0.991		2.28
	Gansu	0.16	560		184		0.03	73	0.409	0.22	1.46
	Qinghai				502			13	0.759		0.27
	Ningxia		125		1,153		0.00	20	0.780	0.08	0.82
	Xinjiang	15.26	90	63	3,816		5.97	126	0.560	0.06	1.68
	National Total	95.15	50,524	17,469	121,498		29.65	12,637	24.477	40.67	171.00
											83.19

Source: NBS, China Statistical Yearbook, 2007.

Table 4B.10. Efficiency of Energy Conversion
(%)

Year	Total Average	Power & Heat Generation	Coking	Petroleum Refining
1991	65.90	37.60	89.90	98.10
1992	66.00	37.80	92.70	96.80
1993	67.32	39.90	98.05	98.49
1994	65.20	39.35	89.62	97.48
1995	71.05	37.31	91.99	97.67
1996	71.50	38.30	94.07	97.46
1997	69.23	35.89	92.08	97.37
1998	69.44	37.06	94.97	97.42
1999	69.19	37.04	96.21	97.51
2000	69.04	37.36	96.21	97.32
2001	69.03	37.36	96.50	97.92
2002	69.04	38.73	96.63	96.71
2003	69.40	38.83	96.13	96.80
2004	70.71	39.46	97.61	96.43
2005	71.16	39.87	97.61	96.86
2006	71.24	39.87	97.77	96.86

Source: NBS, China Energy Statistical Year, 2007.

Table 4B.11. Energy Intensity per GDP Unit

Year	GDP (constant 1995 Yuan)						
	Total Energy Consumption (tce/thousand yuan)	Coal (ton/thousand yuan)	Coke (ton/thousand yuan)	Petroleum (ton/thousand yuan)	Crude Oil (ton/thousand yuan)	Fuel Oil (ton/thousand yuan)	Electricity (kWh/yuan)
1991	0.512	0.546	0.035	0.061	0.061	0.017	0.340
1992	0.472	0.494	0.034	0.058	0.057	0.015	0.330
1993	0.442	0.461	0.034	0.056	0.053	0.014	0.320
1994	0.418	0.438	0.031	0.051	0.048	0.012	0.320
1995	0.401	0.421	0.033	0.049	0.046	0.011	0.310
1996	0.388	0.404	0.030	0.049	0.044	0.010	0.300
1997	0.353	0.357	0.028	0.050	0.045	0.010	0.290
1998	0.315	0.308	0.026	0.047	0.041	0.009	0.280
1999	0.290	0.282	0.023	0.046	0.041	0.009	0.270
2000	0.277	0.264	0.021	0.045	0.042	0.008	0.270
GDP (constant 2000 Yuan)							
2000	0.140	0.133	0.011	0.023	0.021	0.004	0.140
2001	0.133	0.126	0.010	0.021	0.020	0.004	0.140
2002	0.130	0.121	0.011	0.021	0.019	0.003	0.140
2003	0.136	0.131	0.011	0.019	0.019	0.007	0.150
2004	0.143	0.136	0.012	0.022	0.020	0.003	0.150
2005	0.143	0.138	0.014	0.021	0.019	0.003	0.160
GDP (constant 2005 Yuan)							
2005	0.122	0.118	0.013	0.018	0.016	0.002	0.140
2006	0.121	0.117	0.014	0.017	0.016	0.002	0.140

Source: NBS, China Energy Statistical Yearbook, 2007.

Table 4B.12. Growth Rate of Energy Consumption in China: 1985-2004
(%)

Year	Growth rate of energy consumption over preceding year	Growth rate of electricity consumption over preceding year	Growth rate of GDP over preceding year
1985	8.10	9.00	13.50
1989	4.23	7.29	4.10
1990	1.80	6.20	3.80
1991	5.10	9.20	9.20
1992	5.20	11.50	14.20
1993	6.30	11.00	14.00
1994	5.80	9.90	13.10
1995	6.90	8.20	10.90
1996	5.90	7.40	10.00
1997	-0.80	4.80	9.30
1998	-4.10	2.80	7.80
1999	1.20	6.10	7.60
2000	3.50	9.50	8.40
2001	3.40	9.30	8.30
2002	6.00	11.80	9.10
2003	15.30	15.60	10.00
2004	16.10	15.40	10.10
2005	10.60	13.50	10.40
2006	9.60	14.60	11.10

Source: NBS, China Statistical Yearbook, 2007.

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Table 5B.1. Freight Movements by Mode (Billion ton-km)

Year	Railroad			Total Railroad	Highway ^[1]	Waterway ^[2]		Total Waterway	Pipeline	Air	Total
	National	Local	Joint Venture			Inland Waterway	Ocean				
1949	18.40			18.40	0.81	6.31		6.31		0.02	25.55
1950	39.41			39.41	0.94	5.13		5.13		<0.005	45.48
1951	51.56			51.56	1.15	8.65	1.70	10.35		<0.005	63.06
1952	60.16			60.16	1.45	11.78	2.80	14.58		<0.005	76.19
1953	78.14			78.14	2.33	14.46	4.10	18.56		<0.005	99.03
1954	93.24			93.24	2.91	20.47	3.70	24.17		0.01	120.33
1955	98.15			98.15	3.41	23.40	7.00	30.40		0.01	131.97
1956	120.35			120.35	4.44	27.69	6.60	34.29		0.01	159.09
1957	134.59			134.59	4.80	33.86	7.70	41.56		0.01	180.96
1958	185.53			185.53	7.75	44.22	7.50	51.72		0.01	245.01
1959	247.63			247.63	10.67	59.30	9.60	68.90		0.02	327.22
1960	276.69			276.69	13.25	64.98	11.80	76.78		0.03	366.75
1961	200.77			200.77	7.61	42.58	11.70	54.28		0.02	262.68
1962	171.91	0.20		172.11	6.21	33.96	11.30	45.26		0.02	223.60
1963	181.46	0.14		181.60	6.43	33.70	13.10	46.80		0.02	234.85
1964	212.45	0.15		212.60	7.42	36.93	18.10	55.03		0.02	275.07
1965	269.65	0.23		269.88	9.51	43.32	23.70	67.02		0.03	346.44
1966	301.63	0.27		301.89	11.64	48.60	28.00	76.60		0.03	390.16
1967	226.58	0.30		226.88	10.15	41.57	26.40	67.97		0.04	305.04
1968	223.53	0.35		223.88	8.44	43.07	35.50	78.57		0.03	310.92
1969	277.93	0.40		278.33	11.03	49.53	36.50	86.03		0.03	375.42
1970	349.14	0.46		349.60	13.81	51.23	41.90	93.13		0.04	456.58
1971	375.95	0.64		376.59	15.38	56.87	70.70	127.57	0.90	0.03	520.47
1972	390.51	0.81		391.32	16.43	60.88	90.10	150.98	5.70	0.03	564.46
1973	407.48	0.74		408.22	17.57	67.22	127.70	194.92	8.70	0.03	629.44
1974	380.58	0.71		381.29	17.48	69.18	147.10	216.28	16.30	0.04	631.39
1975	424.62	0.95		425.57	20.27	81.77	175.70	257.47	26.20	0.06	729.57
1976	386.07	0.88		386.95	20.96	85.52	161.20	246.72	35.70	0.07	690.40
1977	455.73	1.15		456.88	25.13	102.07	174.10	276.17	38.70	0.08	796.96
1978	533.35	1.17		534.52	27.41	129.22	248.70	377.92	43.00	0.10	982.95
1979	558.80	1.00		559.80	74.50	139.32	317.10	456.42	47.60	0.12	1,138.44
1980	570.75	0.96		571.70	76.40	152.08	353.20	505.28	49.10	0.14	1,202.62
1981	570.13	1.07		571.20	78.00	150.69	364.30	514.99	49.90	0.17	1,214.26
1982	610.92	1.08		612.00	94.90	170.81	376.90	547.71	50.10	0.20	1,304.91
1983	663.39	1.21		664.60	108.40	181.06	397.70	578.76	52.40	0.23	1,404.39
1984	723.51	1.29		724.80	153.60	196.10	437.40	633.50	57.20	0.31	1,569.41
1985	811.19	1.41		812.60	169.30	237.10	532.90	772.93	60.30	0.42	1,812.62
1986	875.03	1.47		876.50	211.80	270.00	594.80	864.79	61.20	0.48	2,014.78
1987	945.62	1.58		947.20	266.00	288.90	657.60	946.51	62.50	0.65	2,222.85
1988	986.06	1.74		987.80	322.00	310.40	696.60	1,007.04	65.00	0.73	2,382.53
1989	1,037.30	2.12		1,039.42	337.47	349.76	768.90	1,118.66	62.90	0.69	2,559.14
1990	1,060.12	2.12		1,062.24	335.81	345.09	814.10	1,159.19	62.70	0.82	2,620.76
1991	1,094.81	2.39		1,097.20	342.80	396.54	899.00	1,295.54	62.10	1.01	2,798.65
1992	1,154.85	2.70		1,157.56	375.54	422.22	903.40	1,325.62	61.70	1.34	2,921.76
1993	1,192.34	3.12		1,195.46	407.05	472.68	913.40	1,386.08	60.80	1.66	3,042.66
1994	1,242.62	3.15		1,245.75	448.63	541.89	1,026.77	1,568.66	61.20	1.86	3,326.10
1995	1,283.60	3.42		1,287.02	469.49	561.42	1,193.80	1,755.22	59.00	2.23	3,573.00
1996	1,292.19	4.86		1,297.05	501.12	660.85	1,125.40	1,786.25	58.50	2.49	3,645.40
1997	1,304.64	5.07	15.62	1,325.33	527.15	436.03	1,487.47	1,923.50	57.90	2.91	3,836.82
1998	1,226.15	5.07	20.48	1,251.71	548.34	448.55	1,492.03	1,940.58	60.60	3.35	3,804.58
1999	1,257.79	3.76	22.29	1,283.84	572.43	424.86	1,701.44	2,126.30	62.79	4.23	4,049.56
2000	1,344.40	4.36	28.29	1,377.05	612.94	666.12	1,707.30	2,373.42	63.60	5.03	4,432.05
2001	1,436.88	5.54	27.00	1,469.41	633.04	511.59	2,087.30	2,598.89	65.30	4.37	4,770.99
2002	1,521.91	6.28	37.65	1,565.84	678.25	577.76	2,173.30	2,751.06	68.30	5.16	5,068.59
2003	1,647.56	6.90	70.21	1,724.67	709.95	641.10	2,230.48	2,871.58	73.90	5.79	5,385.92
2004	1,828.55	8.91	91.42	1,928.88	784.09	917.37	3,225.50	4,142.87	81.50	7.18	6,944.50
2005	1,953.34	9.92	109.35	2,072.60	869.32	1,112.03	3,855.20	4,967.23	108.80	7.89	8,025.81
2006	2,055.72	10.57	129.16	2,195.44	975.42	1,290.87	4,257.70	5,548.57	166.40	9.43	8,895.20
2007	2,379.32				1,125.76			6,218.22		11.56	

[1] Data on highway transport for 1949-1978 include freight carried by transportation work units only. Subsequent data also include freight carried by vehicles belonging to other types of work units, e.g., industrial and agricultural. Data for 1984 and later years further include freight carried by private motor vehicles.

[2] Inland waterway shipping data are not broken out after 1993, but are derived from Total and Ocean data.

Source: NBS, China Statistical Yearbook, various years.

Figure 5B.1. Freight Movements by Mode, 1950-2006

Note: Air freight transport remains negligible, amounting to 7.9 billion ton-km in 2005.

Table 5B.2. Passenger Travel by Mode (Billion passenger-km)

Year	Railroad			Total Railroad	Highway	Waterway	Air	Total
	National	Local	Joint Venture					
1949	13.00			13.00	0.80	1.52	0.19	15.50
1950	21.24			21.24	1.28	1.47	0.01	24.00
1951	23.05			23.05	1.72	2.17	0.02	26.96
1952	20.06			20.06	2.26	2.45	0.02	24.79
1953	28.17			28.17	3.38	3.41	0.03	34.99
1954	29.47			29.47	4.13	3.44	0.05	37.09
1955	26.74			26.74	5.03	3.52	0.06	35.35
1956	34.38			34.38	7.82	4.23	0.10	46.53
1957	36.13			36.13	8.81	4.64	0.08	49.66
1958	40.92			40.92	11.61	4.58	0.12	57.23
1959	51.72			51.72	13.97	5.34	0.14	71.17
1960	67.40			67.40	14.60	6.19	0.16	88.35
1961	89.56			89.56	12.88	7.95	0.14	110.53
1962	85.73	0.17		85.90	14.15	8.39	0.12	108.56
1963	53.12	0.09		53.21	13.43	5.88	0.14	72.66
1964	48.52	0.09		48.62	14.63	5.13	0.20	68.58
1965	47.78	0.12		47.90	16.82	4.47	0.25	69.44
1966	50.36	0.13		50.49	20.75	6.43	0.22	77.89
1967	59.38	0.15		59.54	20.00	6.60	0.24	86.38
1968	67.88	0.17		68.06	18.58	6.78	0.21	93.63
1969	77.01	0.20		77.21	22.22	7.47	0.17	107.07
1970	71.59	0.23		71.82	24.01	7.10	0.18	103.11
1971	76.01	0.24		76.25	26.81	7.34	0.30	110.70
1972	84.90	0.29		85.19	30.25	7.71	0.42	123.57
1973	89.99	0.27		90.26	33.33	8.36	0.57	132.52
1974	92.28	0.27		92.55	35.49	8.69	0.93	137.66
1975	95.26	0.15		95.41	37.45	9.06	1.54	143.46
1976	95.47	0.24		95.71	40.25	9.43	1.57	146.96
1977	102.02	0.26		102.27	44.81	9.75	1.83	158.67
1978	109.08	0.24		109.32	52.10	10.06	2.79	174.27
1979	121.37	0.24		121.62	60.33	11.40	3.50	196.85
1980	138.04	0.26		138.30	72.95	12.91	3.96	228.11
1981	146.99	0.28		147.26	83.90	13.78	5.02	249.96
1982	157.20	0.28		157.48	96.39	14.45	5.95	274.28
1983	177.34	0.31		177.65	110.56	15.39	5.90	309.50
1984	204.32	0.32		204.64	133.69	15.39	8.35	362.07
1985	241.25	0.36		241.61	172.49	17.87	11.70	443.66
1986	258.31	0.36		258.67	198.17	18.21	14.60	489.65
1987	284.00	0.31		284.31	219.04	19.59	18.20	541.14
1988	325.73	0.30		326.03	252.82	20.39	21.70	620.94
1989	303.44	0.30		303.74	266.21	18.83	18.68	607.46
1990	261.01	0.25		261.26	262.03	16.49	23.05	562.83
1991	282.48	0.33		282.81	287.17	17.72	30.13	617.84
1992	314.83	0.39		315.22	319.26	19.84	40.61	694.94
1993	347.94	0.39		348.33	370.07	19.65	47.76	785.81
1994	363.28	0.32		363.60	422.03	18.35	55.16	859.10
1995	354.26	0.31		354.60	460.31	17.18	68.13	900.20
1996	332.20	0.33		332.50	490.88	16.06	74.78	914.30
1997	354.35	0.47	3.66	358.49	554.14	15.57	72.35	1,005.55
1998	369.10	0.50	7.74	377.34	594.28	12.03	80.02	1,063.64
1999	404.63	0.44	8.53	413.59	619.92	10.73	85.73	1,129.97
2000	441.47	0.46	11.33	453.26	665.74	10.05	97.05	1,226.10
2001	463.66	0.52	12.51	476.68	720.71	8.99	109.14	1,315.51
2002	480.31	0.53	16.11	496.94	780.58	8.18	126.87	1,412.57
2003	462.28	0.40	16.18	478.86	769.56	6.31	126.32	1,381.05
2004	551.20	0.40	19.62	571.22	874.84	6.63	178.23	1,630.91
2005	583.32	0.35	22.52	606.20	929.21	6.78	204.49	1,746.67
2006	635.33	0.47	26.42	662.21	1,013.08	7.36	237.07	1,919.72
2007	721.72				1,144.50	7.73	277.63	2,151.58

Source: NBS, China Statistical Yearbook, various years.

Figure 5B.2. Passenger Travel by Mode, 1949-2006

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006

1. National Totals, by Year (thousands) ^[7]

Year	Trucks			Passenger Vehicles ^[6]			Specialty Vehicles ^[5]	Other Vehicles	Total Vehicles	Motorcycles				Tractors		Licensed Drivers (1,000)	
	Large Trucks ^[1]	Small Trucks ^[2]	Subtotal	Buses ^[3]	Small Vehicles ^[4]	Passenger Subtotal				Two-Wheeled	Three-Wheeled	Motorcycles	Other Motor Vehicles	Two-Wheeled	Tractor Subtotal	Total	Auto Drivers
1970	305.20	15.20	320.40	31.10	44.20	75.30			395.70								
1971	356.30	20.10	376.40	35.70	48.10	83.80			460.20								
1972	418.00	19.40	437.40	40.90	59.30	100.20			537.60								
1973	483.90	20.80	504.70	47.90	71.60	119.50			624.20								
1974	561.70	24.40	586.10	52.50	90.30	142.80			728.90								
1975	652.50	27.80	680.30	60.30	112.80	173.10			853.40								
1976	754.20	31.20	785.40	68.90	134.20	203.10			988.50								
1977	854.20	29.40	883.60	77.30	149.10	226.40			1,110.00								
1978	966.80	34.90	1,001.70	87.90	171.10	259.00			1,260.70			126.00	230.30				1,924.50
1979	1,107.20	36.50	1,143.70	99.60	197.20	296.80			1,440.50								
1980	1,257.60	41.40	1,299.00	113.00	237.80	350.80			1,649.80			244.70	305.50				2,452.30
1981	1,374.10	66.80	1,440.90	130.40	275.30	405.70			1,846.60								
1982	1,480.60	86.90	1,567.50	145.60	296.20	441.80	148.13		2,009.30			319.95					
1983	1,576.70	117.70	1,694.40	161.30	316.50	477.80	154.15		2,172.20			405.63					
1984	1,695.60	188.10	1,883.70	182.30	380.50	562.80	157.65		2,446.50			598.92					
1985			2,232.00			794.50			3,026.50			946.00	1,561.80		1,783.50		4,624.40
1986			2,465.70			966.10	187.70		3,431.80			1,483.20			2,288.20		
1987	2,105.80	706.30	2,812.10	273.60	841.04	1,114.60	154.00		10,305.70	1,358.45	1,119.19	2,477.64	2782.20	2,318.20	3,747.36		
1988	2,280.50	898.00	3,178.50	299.40	1,004.40	1,303.80	161.60		11,583.83	2,135.96	887.90	3,023.86	3342.10	2,512.67	3,916.07		
1989	2,419.00	1,044.70	3,463.70	311.90	1,152.40	1,464.30	185.20		12,810.60	2,670.00	923.30	3,593.30	3968.00	2,523.20	4,104.10	15,779.90	7,223.20
1990	2,495.80	1,189.00	3,684.80	333.00	1,288.90	1,621.90	206.90		14,352.20	3,105.80	1,107.00	4,212.80	4623.30	2,648.10	4,625.80	16,358.50	7,909.60
1991	2,607.74	1,378.46	3,986.20	350.50	1,501.90	1,852.40	212.60		16,048.00	3,795.80	1,255.70	5,051.50	5570.20	2,708.00	4,945.30	17,915.70	8,594.40
1992	2,754.44	1,660.06	4,414.50	380.60	1,881.00	2,261.60	241.30		18,763.10	4,989.30	1,485.60	6,474.90	7162.10	2,592.30	5,370.80	20,178.30	9,695.50
1993			5,010.00			2,859.80						8,587.90	9493.80			23,594.20	11,129.70
1994	3,218.31	2,382.49	5,600.80	441.74	3,055.66	3,497.40	174.88		9,419.52			10,938.16	12088.90			28,121.20	12,692.30
1995	3,186.98	2,667.33	5,854.30	440.12	3,738.88	4,179.00			10,400.00			13,719.27	14946.20			35,015.20	16,733.90
1996	2,944.36	2,805.94	5,750.30	456.69	4,423.51	4,880.20			11,000.08			16,100.51	17731.30			42,752.60	21,007.40
1997	2,979.31	3,032.99	6,012.30	486.51	5,319.09	5,805.60	205.52		12,190.90	17,541.30		20,222.20	22148.30		7,328.10	52,067.90	26,192.50
1998	2,989.22	3,289.68	6,278.90	520.88	6,027.43	6,548.30	200.59		13,193.03	22,548.40		25,204.42	27707.20	3,014.28	7,719.97	59,445.80	29,740.60
1999	3,130.37	3,427.06	6,769.50	570.10	6,832.21	7,402.30	209.90		14,529.40	27,720.86		31,619.40	34,569.60		7,644.70	67,274.87	33,611.25
2000	3,237.52	3,738.37	7,163.20	604.64	7,932.70	8,537.30	216.00		16,089.10	33,171.18		37,717.90	41,680.60		8,209.20	76,555.60	37,465.10
2001			7,652.40			9,939.60	232.60		18,020.40			43,307.70	47,240.50		8,260.20	84,550.41	44,626.77
2002			8,122.20			12,023.70	385.80	385.80	20,531.70						10,072.10	93,620.30	48,270.80
2003			8,535.07			14,788.08		506.10	23,829.25						11,205.70	106,110.36	53,680.66
2004			8,930.05			17,359.06		648.00	26,937.14						9,978.20	117,690.39	71,016.41
2005			9,555.47			21,324.55		716.60	31,596.63						13,576.40	130,695.25	80,177.56
2006			9,863.00			26,195.70		914.90	36,973.50							142,138.70	93,172.40

[1] Large trucks have an average payload of about 5 tonnes.

[2] Small trucks have an average payload of about 1.7 tonnes.

[3] Buses have an average of 40 seats.

[4] Small passenger vehicles have an average of 8 seats.

[5] Includes the categories of "specialized motor vehicles" and "special purpose motor vehicles".

[6] Cars are included in passenger vehicles.

[7] Since 2002, the statistical standard of detail item of passenger vehicles and trucks, other vehicles have been adjusted, the data are not comparable with previous years.

Sources: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; China Automotive Industry Corporation, *et al.*, 1993 & 1999, 2001, Yearbook of China Transportation & Communications, 2006.

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006 (continued)

2. Civilian Motor Vehicle Stock by Province, 1998 (thousands)

Province	Vehicles		Trucks		Special-Purpose Trucks		Passenger Vehicles				Other Dedicated		Specialty		Tractors		Motorcycles		Other	
	Total	Subtotal	Large	Tons	Subtotal	Tons	Subtotal	Buses	Seats: subtotal	Seats: buses	Vehicles	Vehicles	Subtotal	2-wheeled	Subtotal	2-wheeled	Subtotal	2-wheeled	Vehicles	Vehicles
National Total	13,193.034	6,093.101	2,989.218	22,807.357	185.842	1,282.025	6,448.324	520.875	76,214.656	20,702.287	165.175	200.292	7,719.972	3,014.460	25,204.423	22,548.396	2,502.748			
Beijing	898.47	196.07	56.55	601.36	3.48	42.52	690.344	20.127	8,021.377	805.080	4.848	3.729	34.365		272.612	133.27				
Tianjin	400.18	198.35	57.74	627.90	6.18	44.98	185.156	10.640	1,557.005	321.430	5.961	4.538	43.850	7.850	373.112	212.38			64.643	
Hebei	810.33	419.11	223.35	2,095.55	16.19	129.49	259.726	20.304	7,194.520	893.376	6.710	8.600	1,201.624	101.982	1,760.184	1,382.87			33.601	
Shanxi	457.69	250.90	156.33	1,440.82	2.79	20.47	185.179	10.258	1,820.275	413.308	5.270	13.554	203.409	7.374	628.961	595.80			141.531	
Inner Mongolia	291.94	138.33	93.96	553.33	3.92	51.78	144.216	7.685	1,211.414	345.825	2.579	2.592	399.818	14.089	431.157	386.89			66.244	
Liaoning	665.13	279.31	131.22	1,291.59	13.24	93.58	358.229	29.212	5,531.379	1,591.001	5.150	9.205	133.685	16.649	660.961	562.93			47.747	
Jilin	337.11	139.38	73.94	462.19	1.74	8.79	177.265	11.714	1,377.703	257.708	16.930	1.790	341.403	234.137	413.444	295.98			48.552	
Heilongjiang	461.99	219.86	121.66	879.43	15.19	151.88	210.874	27.795	4,217.480	1,119.800	12.041	4.027	118.622	10.843	206.172	111.88			0.232	
Shanghai	386.85	118.33	45.44	359.23	4.76	39.22	244.270	23.556	2,261.065	1,216.069	9.304	10.187	8.721	8.586	183.251	178.66			3.675	
Jiangsu	561.13	246.07	150.94	907.98	8.33	32.82	295.237	24.002	2,812.554	965.399	4.230	7.267	344.453	241.388	2,403.792	2,328.75			180.259	
Zhejiang	478.30	251.86	100.65	881.51	6.22	74.66	209.074	15.349	2,195.277	613.960	5.965	5.177	419.376	266.101	1,160.167	1,040.11			70.226	
Anhui	308.04	152.34	99.06	647.75	4.67	21.52	145.180	18.302	1,544.715	687.240	3.242	2.613	1.846		424.310	321.30			103.897	
Fujian	248.06	125.04	55.15	367.87	4.46	15.28	115.711	9.638	1,214.479	357.684	2.138	0.705	149.895	77.173	954.745	817.25			2.054	
Jiangxi	209.21	110.23	68.87	435.42	0.41	2.07	84.981	10.018	1,295.960	332.598		13.582	42.180	24.982	494.059	414.17			59.331	
Shandong	900.44	459.61	198.45	1,269.64	13.73	82.08	385.770	23.848	3,080.935	892.888	9.673	31.663	686.600	31.817	3,274.742	3,152.70			795.497	
Henan	680.88	308.38	190.43	1,282.57	9.18	48.35	349.364	30.667	4,959.342	1,020.169	4.629	9.332	1,461.522	608.608	1,249.110	1,099.12			339.350	
Hubei	432.21	195.97	104.55	666.67	5.68	29.33	219.338	29.206	2,609.764	1,186.594	3.553	7.659	17.940	6.581	824.931	714.08			77.458	
Hunan	415.76	214.89	116.56	819.60	2.46	10.83	189.631	22.608	2,197.041	841.814	2.028	6.752	200.893	164.253	683.412	608.99			44.932	
Guangdong	1,355.07	688.18	218.76	2,456.18	15.09	148.48	626.501	54.662	6,177.601	2,155.133	14.780	10.522	188.280	141.483	5,264.483	5,215.59			10.734	
Guangxi	272.51	127.08	73.16	442.23	2.85	12.14	136.925	14.284	1,361.035	512.796	2.164	3.490	258.311	173.850	926.605	857.36			34.541	
Hainan	90.62	38.07	19.28	141.19	0.05	0.32	50.325	4.957	477.454	210.000	1.669	0.504	25.235	22.476	302.092	280.80			5.744	
Sichuan	645.55	278.44	131.50	754.15	6.09	14.06	342.168	29.802	3,319.030	1,052.694	5.547	13.303	0.116	0.039	739.691	618.69			116.443	
Chongqing	165.96	78.63	42.87	274.97	1.18	4.78	82.461	12.918	948.703	428.684	1.165	2.521	21.000	3.300	112.058	81.43			30.956	
Guizhou	196.79	108.84	44.47	359.90	1.86	8.90	82.529	8.373	963.113	359.764	0.429	3.136	63.055	1.875	122.555	85.53			6.867	
Yunnan	523.01	293.36	148.70	1,070.28	4.49	19.93	217.102	13.260	1,962.192	545.666	5.470	2.597	317.349	246.117	410.972	325.28			5.208	
Xizang (Tibet)	38.04	18.26	15.44	108.04	0.51	2.02	18.107	0.716	178.180	21.480	0.345	0.827	21.077	17.306	9.615	7.86			0.465	
Shaanxi	303.31	123.69	70.56	431.27	4.28	15.94	144.134	9.684	1,377.954	377.366	20.232	10.964	233.849	56.000	453.937	361.11			56.058	
Gansu	191.24	96.92	58.13	290.71	1.88	9.42	87.443	8.638	1,527.595	345.520	1.951	3.040	216.366	105.974	122.311	98.85			120.334	
Qinghai	77.56	37.84	26.43	161.87	1.02	5.06	36.318	3.004	414.752	144.620	1.100	1.288	141.340	136.800	56.652	41.95			5.275	
Ningxia	67.52	35.79	21.13	150.31	1.06	4.11	27.951	2.597	202.537	101.126	0.925	1.794	133.785	53.723	64.405	42.28			1.926	
Xinjiang	322.14	143.97	82.99	575.88	22.87	137.23	146.815	13.011	2,202.225	585.495	5.147	3.334	290.007	233.104	219.925	174.55			28.968	

Source: China Automotive Industry Corporation, et al., 1999

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006 (continued)

3. Civilian Motor Vehicle Stock by Province, 2000 (thousands)

Province	Vehicles	Trucks			Special-Purpose Trucks		Passenger Vehicles				Other Dedicated	Specialty	Tractors		Motorcycles		Other
	Total	Subtotal (unit)	Large (unit)	Tons	Subtotal (unit)	Tons	Subtotal	Buses	Seats: subtotal	Seats: buses	Vehicles	Vehicles	Subtotal	2-wheeled	Subtotal	2-wheeled	Vehicles
National Total	16,089.101	6,975.882	3,237.517	27,753.482	187.319	1,449.075	8,537.333	604.636	102,130.515	24,859.839	172.536	216.031	8,209.152	271.000	37,717.924	33,171.118	3,962.702
Beijing	1,041.16	196.04	58.02	601.28	10.06	122.71	821.580	24.284	9,546.259	971.360	9.285	4.194	32.599	8.788	332.161	177.42	40.934
Tianjin	478.94	206.14	61.26	669.22	6.92	51.08	253.861	13.184	2,314.209	421.878	6.535	5.487	44.000	6.547	446.750	275.59	76.991
Hebei	1,041.31	508.52	250.91	2,542.58	15.78	149.11	501.972	23.619	10,039.440	1,039.236	5.318	9.719	1,351.816	119.685	2,512.284	1,988.54	13.985
Shanxi	550.15	274.68	159.45	1,577.37	3.56	26.12	253.481	12.686	2,491.671	511.017	4.351	14.081	219.102	6.857	811.536	723.17	153.658
Inner Mongolia	361.13	162.47	108.33	823.54	4.54	59.85	188.154	9.548	1,581.297	418.320	2.963	3.012	455.448	13.273	602.576	540.49	80.257
Liaoning	786.08	317.41	139.41	2,342.51	14.86	134.31	437.943	32.586	6,454.321	1,911.291	5.346	10.523	132.513	18.087	871.823	700.48	86.525
Jilin	404.17	162.95	83.90	977.68	5.49	35.69	223.092	14.677	4,015.656	660.465	5.329	7.315	414.917	101.681	656.183	523.54	89.476
Heilongjiang	545.19	205.38	118.60	821.52	9.41	94.05	314.521	20.418	5,274.694	816.720	12.611	3.278	116.033	9.928	316.163	245.89	7.274
Shanghai	491.93	138.63	57.68	404.06	5.16	40.53	326.863	28.942	2,824.485	1,468.988	10.658	10.620	8.378	8.243	537.691	533.99	4.537
Jiangsu	745.11	305.43	180.43	1,091.48	9.22	52.18	411.603	28.568	4,499.609	1,410.016	5.718	13.131	350.420	226.848	4,453.138	3,486.90	328.655
Zhejiang	680.57	337.80	119.18	829.46	6.80	60.44	323.173	18.725	2,722.823	773.389	8.803	3.989	422.700	232.800	1,840.464	1,603.27	53.950
Anhui	386.71	190.22	122.37	968.30	2.13	14.27	187.940	23.085	2,903.900	880.830	3.644	2.774	4.118		686.782	549.85	106.596
Fujian	321.28	154.22	54.18	443.92	3.81	14.59	156.890	11.446	1,522.512	303.806	5.000	1.360	69.929	48.719	1,553.608	1,406.23	68.445
Jiangxi	247.00	130.08	78.77	513.80	1.07	6.13	100.794	11.689	1,537.109	388.075	0.057	15.002	50.638	21.088	891.179	780.60	86.248
Shandong	1,122.99	536.06	505.57	1,552.53	14.89	67.15	529.525	29.354	3,983.498	1,146.066	9.978	32.532	531.308	28.190	4,936.673	4,726.77	1,194.955
Henan	847.29	363.72	212.97	1,587.90	11.73	66.33	456.068	32.771	7,856.318	1,295.550	6.187	9.578	1,720.601	538.015	1,779.010	1,508.04	615.852
Hubei	475.49	211.41	105.34	606.77	5.81	28.88	246.934	29.192	2,733.243	1,202.419	4.326	7.016	17.572	6.581	1,240.984	1,079.47	99.842
Hunan	461.02	232.05	119.74	806.40	2.93	14.69	220.575	31.669	2,635.292	1,077.057	2.388	3.086	157.922	40.047	955.071	863.00	55.693
Guangdong	1,729.05	828.18	242.11	3,304.16	15.60	213.31	853.375	64.342	7,969.195	2,419.182	22.423	9.477	156.166	120.241	6,799.167	6,740.63	17.091
Guangxi	291.32	131.57	73.79	582.00	2.60	13.16	152.285	16.962	1,925.688	686.011	2.703	2.156	291.680	212.073	1,601.483	1,454.99	33.959
Hainan	90.07	35.48	16.96	103.33	1.06	5.29	52.180	4.822	473.628	188.880	0.216	1.132	33.701	26.764	373.889	357.39	9.563
Chongqing	211.30	96.28	41.48	296.82	1.70	7.93	109.255	12.671	1,214.246	508.067	1.073	2.988	23.500	2.080	174.263	159.33	21.342
Sichuan	764.89	308.06	135.83	905.68	5.73	33.78	438.895	34.959	5,091.182	1,450.798	5.221	6.994	105.625	17.677	1,157.543	938.72	106.229
Guizhou	240.88	132.43	49.69	403.90	2.44	11.62	102.019	9.467	1,142.613	392.070	0.490	3.509	71.800	1.629	182.479	139.62	5.139
Yunnan	600.15	303.91	146.88	966.75	4.62	16.47	282.822	14.301	2,455.314	588.920	5.954	2.847	348.425	260.591	617.244	540.73	1.165
Xizang (Tibet)	45.00	20.67	17.85	112.72	0.50	3.69	22.979	1.028	157.406	25.700	0.353	0.497	13.884	11.992	12.114	10.70	0.698
Shaanxi	364.67	135.19	73.96	649.09	4.98	23.90	194.215	17.156	1,229.425	514.740	13.166	17.124	220.000	40.400	675.203	559.23	101.951
Gansu	221.99	103.99	59.55	362.82	2.23	13.19	111.694	10.137	2,081.077	456.165	1.989	2.084	204.076	133.720	161.280	129.09	443.001
Qinghai	87.12	38.17	25.07	143.78	1.15	5.89	45.344	3.189	452.732	121.182	1.427	1.026	145.654	134.402	94.467	67.54	6.419
Ningxia	85.42	434.96	24.97	228.93	1.15	6.22	37.629	3.630	216.757	108.336	1.191	1.959	171.529	52.158	122.553	104.19	3.301
Xinjiang	369.74	165.27	93.27	803.21	9.42	56.53	179.672	15.629	2,784.916	703.305	7.833	7.541	323.098	260.896	322.163	255.72	48.971

Source: China Automotive Industry Corporation, *et al.*, 2001.

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006 (continued)

4. Civilian Motor Vehicle Stock by Province, 2005 (thousands)

Province	Total	Passenger Vehicles					Trucks					Others	Number of Motor Drivers	Automobile Drivers
			Large	Medium	Small	Minicar	Trucks	Heavy	Light-Heavy	Light	Mini			
Beijing	2,097.25	1,883.06	36.42	108.93	1,521.66	216.05	177.25	23.89	34.25	117.11	2.00	36.94	3,840.00	3,704.12
Tianjin	676.79	542.66	14.06	25.84	398.17	104.59	119.55	18.91	17.06	75.71	7.88	14.58	1,645.03	1,531.36
Hebei	1,982.26	1,199.80	29.22	27.49	849.44	293.64	708.61	200.19	118.70	343.31	46.42	73.85	7,279.02	4,588.75
Shanxi	1,074.35	677.75	17.05	27.27	497.35	136.07	379.60	102.83	89.11	148.23	39.44	17.01	2,550.27	2,045.26
Inner Mongolia	658.25	384.58	12.34	17.83	286.13	68.29	248.81	106.46	55.88	77.55	8.92	24.86	3,642.79	2,617.09
Liaoning	1,348.67	896.22	42.01	85.38	706.25	62.59	423.89	105.69	62.47	240.93	14.80	28.56	4,168.68	3,350.09
Jilin	652.70	465.62	19.27	16.69	362.52	67.13	179.07	43.20	38.16	92.60	5.12	8.01	2,976.88	2,398.09
Heilongjiang	858.99	576.69	29.68	33.00	432.89	81.11	262.78	56.61	74.77	108.53	22.88	19.52	2,606.42	2,394.19
Shanghai	951.55	759.99	35.68	79.97	607.20	37.15	191.57	26.51	82.85	70.90	11.31	0.00	2,762.89	2,082.74
Jiangsu	1,922.51	1,446.34	45.36	97.23	1,137.92	165.84	433.46	51.12	180.31	184.78	17.26	42.71	9,787.87	3,953.78
Zhejiang	2,029.20	1,435.12	35.22	72.84	1,183.36	143.70	559.04	30.74	101.62	367.53	59.16	35.04	6,945.52	4,311.93
Anhui	804.95	436.37	28.68	41.04	296.18	70.47	332.14	50.92	128.58	137.40	15.24	36.44	4,397.25	2,583.99
Fujian	697.90	449.59	15.62	31.20	362.86	39.91	231.35	16.44	40.68	147.57	26.67	16.96	4,427.92	1,766.99
Jiangxi	483.61	271.76	14.91	19.93	200.29	36.63	198.93	74.22	39.52	77.80	7.39	12.93	3,579.81	1,089.37
Shandong	2,469.64	1,664.03	48.26	82.46	1,205.23	328.09	728.90	87.90	139.82	447.58	53.60	76.71	10,960.62	6,194.27
Henan	1,521.74	988.80	46.19	68.33	672.14	202.14	491.67	136.95	108.29	199.41	47.03	41.28	7,625.24	3,871.53
Hubei	862.38	534.02	34.33	42.24	428.91	28.55	309.59	29.30	117.76	135.87	26.66	18.77	5,883.92	3,737.39
Hunan	783.45	494.63	29.25	31.69	394.17	39.53	279.70	40.19	105.57	126.12	7.82	9.12	3,715.17	2,480.61
Guangdong	3,729.64	2,474.37	99.90	204.72	2,094.16	75.59	1,188.44	121.08	181.44	844.52	41.40	66.83	15,112.15	7,839.94
Guangxi	591.38	379.99	24.47	18.07	258.31	79.14	194.83	38.94	54.67	73.82	27.40	16.56	5,248.65	2,478.29
Hainan	164.04	105.43	8.00	5.95	88.35	3.14	56.08	12.34	9.10	31.08	3.57	2.52	948.81	463.40
Chongqing	469.30	260.74	20.25	16.38	191.42	32.70	200.92	29.26	66.98	92.96	11.71	7.64	1,692.53	1,271.39
Sichuan	1,379.96	971.30	44.17	34.77	563.89	328.48	393.88	25.17	154.23	181.18	33.32	14.77	5,585.48	4,066.27
Guizhou	467.71	262.47	13.03	17.95	157.15	74.35	175.64	37.22	37.68	72.14	28.60	29.60	1,569.36	1,186.96
Yunnan	1,036.05	624.88	15.37	29.08	433.62	146.82	403.80	58.93	130.74	170.56	43.56	7.37	3,753.26	2,535.05
Tibet	70.68	31.08	1.78	4.15	22.26	2.88	39.57	21.74	9.35	5.70	2.77	0.00	123.72	102.23
Shaanxi	632.09	428.38	17.59	31.59	307.63	71.57	188.20	29.40	69.67	64.20	24.93	15.51	3,168.12	2,086.17
Gansu	337.36	193.07	14.40	14.03	136.87	27.76	136.20	26.98	40.26	61.81	7.16	8.09	1,741.90	1,321.82
Qinghai	121.82	70.75	4.49	5.96	53.24	7.06	48.47	9.18	15.17	19.52	4.60	2.60	566.55	325.04
Ningxia	156.28	80.38	5.21	5.63	60.90	8.65	68.96	12.31	19.99	33.72	2.94	6.94	628.81	324.54
Xinjiang	564.16	334.70	19.12	18.93	273.04	23.61	204.58	56.14	41.91	94.97	11.56	24.88	1,760.63	1,474.92

Source: NBS, China Statistical Yearbook, 2006.

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006 (continued)

5. Civilian Motor Vehicle Stock by Province, 2006 (thousands)

Province	Total	Passenger Vehicles					Trucks					Others	Number of Motor Drivers	Automobile Drivers
			Large	Medium	Small	Minicar	Trucks	Heavy	Light-Heavy	Light	Mini			
Beijing	2,391.20	2,175.60	38.40	108.70	1,815.20	213.30	176.90	24.00	34.60	11.79	0.04	3.87	412.30	402.07
Tianjin	792.20	648.20	15.20	26.00	504.20	102.80	128.20	18.50	17.80	8.52	0.67	1.57	181.27	167.44
Hebei	2,293.40	1,495.20	30.90	30.80	1,124.10	309.30	703.90	201.60	104.50	36.74	3.04	9.43	787.98	683.02
Shanxi	1,215.50	382.80	18.20	27.80	638.80	148.00	362.90	97.10	8.65	15.78	2.15	1.98	307.12	275.05
Inner Mongolia	837.90	513.40	16.10	19.00	405.70	72.50	284.30	122.40	5.89	9.45	0.85	4.02	280.38	252.23
Liaoning	1,592.20	1,073.40	41.70	95.80	851.20	84.70	473.10	119.30	7.82	26.42	1.13	4.58	427.87	358.00
Jilin	722.50	534.20	20.50	18.30	426.10	69.30	176.20	43.30	3.61	9.17	0.51	1.21	340.16	260.89
Heilongjiang	940.00	658.40	32.30	33.80	507.50	84.70	258.00	56.30	6.88	11.49	1.80	2.36	313.41	257.00
Shanghai	1,070.40	870.60	36.70	76.70	721.20	36.10	199.80	28.20	8.81	7.49	0.86		306.63	296.56
Jiangsu	240.80	1,907.30	50.80	104.50	1,578.00	174.00	449.00	58.50	17.62	20.32	1.11	5.18	1,064.32	587.80
Zhejiang	2,483.60	1,844.70	38.80	75.60	1,585.50	144.90	597.40	33.80	10.03	41.53	4.80	4.15	770.54	485.04
Anhui	946.10	535.20	30.90	44.30	390.90	69.00	364.50	61.00	13.06	16.10	1.19	4.64	443.89	293.63
Fujian	895.70	601.40	17.90	35.70	504.40	43.40	272.30	21.30	4.54	18.38	2.18	2.19	485.50	201.19
Jiangxi	580.70	344.60	16.10	21.50	267.80	39.20	219.60	79.40	4.44	8.95	0.64	1.65	423.63	109.19
Shandong	2,992.30	2,135.80	53.40	85.10	1,655.80	341.40	764.40	97.30	13.54	48.94	4.23	9.22	1,210.46	751.81
Henan	1,833.80	1,212.90	47.70	71.30	886.30	207.60	518.80	139.80	11.68	22.49	3.73	10.22	930.86	523.10
Hubei	987.40	653.90	35.30	44.70	544.50	29.40	309.60	33.00	11.05	15.09	1.53	2.39	658.51	396.26
Hunan	917.60	607.30	31.00	35.70	498.20	42.50	294.60	44.40	10.69	13.89	0.44	1.57	433.32	261.00
Guangdong	4,289.50	3,024.90	103.50	201.50	2,641.40	78.50	1,188.80	98.20	17.65	87.82	3.59	7.58	1,610.05	865.44
Guangxi	661.40	455.20	24.80	18.60	329.40	82.40	187.60	39.40	5.04	8.49	1.29	1.87	565.28	258.17
Hainan	192.30	125.60	7.90	6.50	107.90	3.40	58.60	11.30	0.99	3.48	0.27	0.81	86.08	62.05
Chongqing	560.70	322.10	21.10	18.00	250.90	32.00	226.10	36.50	7.37	10.43	1.16	1.25	189.21	141.77
Sichuan	1,572.30	1,551.40	45.60	34.10	735.70	335.90	403.30	28.10	15.48	20.40	1.64	1.75	666.90	461.18
Guizhou	493.60	322.00	13.90	18.60	216.50	73.00	166.80	32.10	3.77	8.56	1.15	0.49	193.56	147.91
Yunnan	1,147.20	744.60	15.70	31.50	547.20	150.20	393.80	53.70	13.17	19.37	1.48	0.88	393.65	274.75
Tibet	98.20	56.30	4.40	5.70	41.20	5.00	41.90	22.20	0.79	0.83	0.34		12.22	11.12
Shaanxi	757.00	561.30	18.40	34.20	428.20	80.50	177.60	31.50	6.46	7.12	1.04	1.81	280.16	215.89
Gansu	372.60	227.10	15.00	14.00	172.20	25.90	136.00	28.10	3.58	6.83	0.38	0.95	117.73	97.71
Qinghai	133.40	81.80	4.60	5.40	65.10	6.70	48.30	10.20	1.28	2.23	0.30	0.33	50.15	32.58
Ningxia	168.60	95.10	5.00	5.80	76.20	8.10	66.30	13.40	1.54	3.53	0.22	0.73	53.60	38.47
Xinjiang	626.30	383.70	21.50	20.80	316.70	24.70	214.50	56.20	4.28	10.55	1.00	2.82	217.15	148.94

Source: NBS, China Statistical Yearbook, 2007.

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006 (continued)

4. Civilian Motor Vehicle Stock by Ownership, 1998 (thousands)

Vehicle Type	Total	Private	Transport Sector
			Enterprises
Civilian	13,193.03	4,236.48	318.79
1) Buses	6,548.32	2,306.48	194.02
Large	520.88	70,663.00	82.39
Medium and Small	6,027.45	2,235.82	111.64
2) Trucks	6,093.10	1,907.68	118.07
Large	2,989.22		
Medium and Small	3,103.88		
3) Special-Purpose Trucks	185.84	12.63	6.69
4) Other Dedicated Vehicles	165.18	5.81	
5) Specialty Vehicles	200.59	3.88	
Tractors	7,719.97	6,517.43	1.40
Motorcycles	25,204.42	20,425.69	0.03
Two- Wheeled	2,254.40	18,268.36	0.02
Other Vehicles	27,707.20	1,533.03	1.80
Total	48,620.18	32,712.63	322.01

Source: China Automotive Industry Corporation, et al., 1999.

5. Civilian Motor Vehicle Stock by Ownership, 2001 (thousands)

Vehicle Type	Total	Private	Transport Sector
			Enterprises
Civilian	18,020.40	6,253.30	7,643.90
1) Buses	8,537.33	3,650.91	2,551.20
Large	604.64	86.41	
Medium and Small	7,932.70	3,564.50	
2) Trucks	6,975.88	2,571.24	4,966.50
Large	3,237.52	1,074.51	
Medium and Small	3,738.37	1,496.73	
3) Special-Purpose Trucks	187.32	19.63	
4) Other Dedicated Vehicles	172.56	7.25	
5) Specialty Vehicles	216.03	4.28	
Tractors	8,209.15	7,357.50	
Motorcycles	37,717.92	34,592.77	
Two- Wheeled	33,171.12	30,655.92	
Other Vehicles	3,962.70	3,238.20	
Total	67,910.18	51,441.77	

Source: China Automotive Industry Corporation, et al., 2001.

6. Civilian Motor Vehicle Stock by Ownership, 2002 (thousands) ^[1]

Vehicle Type	Civilian	Private
1) Passenger Vehicles	12,023.70	6,237.60
Large	754.80	98.90
Medium	1,048.00	358.70
Small	7,897.40	4,084.90
Minicar	2,323.40	1,695.10
2) Trucks	8,122.20	3,412.90
Heavy	1,482.80	482.37
Medium	2,186.90	844.00
Light	3,605.80	1,586.70
Mini	846.60	499.50
3) Others	385.80	39.40
Total	20,531.70	9,689.80

[1] From 2002, NBS changed the way to categorize passenger vehicles, trucks and other civilian vehicles.

Source: NBS, China Statistical Yearbook, 2007.

7. Civilian Motor Vehicle Stock by Ownership, 2003 (thousands) ^[1]

Vehicle Type	Civilian	Private
1) Passenger Vehicles	14,788.10	8,458.70
Large	757.60	73.60
Medium	1,159.60	425.10
Small	10,172.10	5,869.00
Minicar	2,698.80	2,091.00
2) Trucks	8,535.10	3,673.50
Heavy	1,367.90	444.70
Medium	2,437.00	952.00
Light	3,907.90	1,765.80
Mini	822.20	510.90
3) Others	506.10	60.00
Total	23,829.30	12,192.30

[1] From 2002, NBS changed the way to categorize passenger vehicles, trucks and other civilian vehicles.

Source: NBS, China Statistical Yearbook, 2007.

8. Civilian Motor Vehicle Stock by Ownership, 2004 (thousands) ^[1]

Vehicle Type	Civilian	Private
1) Passenger Vehicles	17,359.10	10,696.90
Large	780.60	72.00
Medium	1,245.40	469.50
Small	12,488.90	7,866.30
Minicar	2,844.20	2,289.10
2) Trucks	8,930.00	4,028.20
Heavy	1,539.00	534.00
Medium	2,339.40	946.90
Light	4,257.40	2,038.50
Mini	794.30	508.70
3) Others	648.00	91.50
		14,816.60
Total	26,937.10	14,816.60

[1] From 2002, NBS changed the way to categorize passenger vehicles, trucks and other civilian vehicles.

Source: NBS, China Statistical Yearbook, 2007.

9. Civilian Motor Vehicle Stock by Ownership, 2005 (thousands) ^[1]

Vehicle Type	Civilian	Private
1) Passenger Vehicles	21,324.60	13,839.30
Large	821.30	76.10
Medium	1,316.50	508.80
Small	16,183.50	10,797.80
Minicar	3,003.20	2,456.60
2) Trucks	9,555.50	4,521.10
Heavy	1,680.70	625.00
Medium	2,366.60	1,003.40
Light	4,845.10	2,432.90
Mini	663.10	459.80
3) Others	716.60	120.40
Total	31,596.60	18,480.70

[1] From 2002, NBS changed the way to categorize passenger vehicles, trucks and other civilian vehicles.

Source: NBS, China Statistical Yearbook, 2007.

10. Civilian Motor Vehicle Stock by Ownership, 2006 (thousands) ^[1]

Vehicle Type	Civilian	Private
1) Passenger Vehicles	26,195.70	18,235.70
Large	873.40	111.90
Medium	1,370.00	562.00
Small	20,834.00	14,911.80
Minicar	3,118.30	2,650.00
2) Trucks	9,863.00	4,949.10
Heavy	1,740.10	642.30
Medium	2,353.90	1,086.40
Light	5,321.30	2,889.40
Mini	447.60	330.90
3) Others	914.90	148.40
Total	36,973.50	23,333.20

[1] From 2002, NBS changed the way to categorize passenger vehicles, trucks and other civilian vehicles.

Source: NBS, China Statistical Yearbook, 2007.

Table 5B.3. Stock of Civilian Motor Vehicles, 1970-2006 (continued)

11. Vehicle Population, Average Vehicle Fuel Economy and Real Fuel Economy (1997-2002)

	Vehicle Population (million units)						Average Vehicle Mileage Traveled (thousand kilometers)					
	1997	1998	1999	2000	2001	2002	1997	1998	1999	2000	2001	2002
Truck												
HDT-D	0.21	0.25	0.32	0.40	0.59	0.92	73.60	75.60	72.00	67.40	50.00	50.00
MDT-G	0.76	0.77	0.81	0.75	0.63	0.50	25.00	25.00	25.00	25.00	24.00	24.00
MDT-D	1.27	1.34	1.44	1.39	1.36	1.39	25.00	25.00	25.00	25.00	24.00	24.00
LDT-G	1.19	1.21	1.24	1.23	1.21	1.02	24.50	23.30	22.00	20.90	20.70	20.00
LDT-D	1.11	1.31	1.68	2.01	2.36	2.83	24.50	23.30	22.00	20.90	20.70	20.00
MT-G	1.45	1.39	1.28	1.39	1.49	1.46	36.30	39.50	44.80	43.20	39.70	38.40
Bus												
HDB-G	0.00	0.00	0.00	0.00	0.00	0.01	68.90	67.30	58.60	52.00	50.00	48.60
HDB-D	0.04	0.04	0.04	0.04	0.05	0.06	68.90	67.30	58.60	52.00	50.00	48.60
MDB-G	0.11	0.11	0.11	0.11	0.12	0.11	68.00	66.50	57.80	52.00	50.00	47.30
MDB-D	0.12	0.12	0.12	0.13	0.16	0.23	68.00	66.50	57.80	52.00	50.00	47.30
LDB-G	0.97	1.01	1.08	1.14	1.25	1.35	35.20	34.90	36.00	34.00	34.00	33.60
LDB-D	0.36	0.42	0.46	0.48	0.53	0.59	35.20	34.90	36.00	34.00	34.00	33.60
MB-G	0.82	1.02	1.26	1.71	2.29	2.97	35.00	35.00	35.00	35.00	34.00	34.00
Car	3.38	3.76	4.32	4.89	5.54	6.70	27.20	27.30	26.40	26.40	26.40	26.00
Motorcycle	20.22	25.20	31.62	37.72	43.31	51.03	10.00	10.00	9.00	9.00	9.00	9.00
HDT: Heavy-duty trucks HDB: Heavy-duty buses D: diesel MDT: Medium-duty trucks MDB: Medium-duty buses G: Gasoline LDT: Light-duty trucks LDB: Light-duty buses MT: Mini Trucks MD: Mini buses												

Source: He, Wang et al, 2005.

Figure 5B.3. Stock of Civilian Motor Vehicles^[1], 1970-2005

Table 5B.4. Stock of Private Motor Vehicles (thousands)

Year	Total ^[1]	Trucks		Passenger Vehicles		Specialty Vehicles	Tractors	Other Vehicles	
		Subtotal	Tons	Subtotal	Seats			Subtotal	Motorcycles
1993	1,557.67	931.82	4,146.41	598.47	7,405.93	0.55	4,483.77	7,574.60	6,900.22
1994	2,054.20	1,232.88	5,034.82	786.23	10,150.76	0.51	4,792.07	9,720.82	8,883.94
1995	2,499.64	1,318.23	5,377.87	1,141.55	13,226.33	2.41	5,026.67	n/a	10,969.24
1996	2,896.74	1,427.81	5,465.00	1,430.39	16,154.99	1.99	5,901.61	1,234.16	13,203.79
1997	3,583.54	1,631.92	5,859.05	1,912.74	22,533.38	2.83	6,305.60	1,321.34	16,391.01
1998	4,236.48	1,907.68		2,306.48		3.88	6,517.43	1,533.03	20,425.69
1999	5,338.83	2,269.08		3,040.91		4.93	6,393.18	1,873.84	26,213.56
2000	6,253.30	2,571.24		3,650.91		4.28	7,357.50	3,238.20	34,592.77

Source: China Automotive Industry Corporation, *et al.*, 1999 and 2001

Table 5B.4. Stock of Private Motor Vehicles (thousands)

Year	Total ^[2]	Trucks				Passenger Vehicles					Others	
		Subtotal	Heavy	Middle	Light		Mini	Large	Medium	Small		Minicar
1985	284.90	264.80					19.30					
1989	731.20	525.00					202.80					
1990	816.20	574.80					240.70					
1991	960.40	656.10					303.60					
1992	1,182.00	751.50					417.60					
1993	1,557.70	940.00					598.50					
1994	2,054.20	1,232.90					786.20					
1995	2,499.60	1,318.30					1,141.50					
1996	2,896.70	1,427.80					1,430.40					
1997	3,583.60	1,631.90					1,912.70					
1998	4,236.50	1,920.30					2,306.50					
1999	5,338.80	2,286.80					3,040.90					
2000	6,253.30	2,590.90					3,650.90					
2001	7,707.80	2,989.50					4,698.50					
2002	9,689.80	3,412.90	482.70	844.00	1,586.70	499.50	6,237.60	98.90	358.70	4,084.90	1,695.10	39.40
2003	12,192.30	3,673.50	444.70	952.00	1,765.80	510.90	8,458.70	73.60	425.10	5,869.02	2,091.01	60.00
2004	14,816.60	4,028.16	533.99	946.94	2,038.52	508.71	10,696.91	71.99	469.51	7,866.31	2,289.10	91.54
2005	18,480.70	4,521.06	625.03	1,003.38	2,432.87	459.78	13,839.25	76.10	508.76	10,797.81	2,456.59	120.35
2006	23,333.20	4,949.12	642.34	1,086.43	2,889.43	330.91	18,235.66	111.85	562.03	14,911.76	2,650.01	148.39

[2] Totals are slightly larger than the sum of subtotals.

Source: NBS, China Statistical Yearbook, various years.

Table 5B.5(a). Structure of Transportation-Enterprise Vehicle Stock (thousands)

1. Passenger Vehicles

Year		Total	Subtotal	In Which		Passenger's Seats	In Which	
				Larger Vehicles	M & S Vehicles		Larger Seats	Medium and Small Seats
1993	National Total	289.645	128.174	109.396	18.778	5,095.605	4,886.688	208.917
	Local subtotal	289.160	128.104	109.376	18.728	5,094.375	4,885.728	208.647
1994	National Total	279.193	130.527	101.145	29.382	4,939.411	4,501.474	437.937
	Local subtotal	278.774	130.507	101.125	29.382	4,938.451	4,500.514	437.937
1995	National Total	274.859	137.335	94.703	42.632	4,806.138	4,136.232	669.906
	Local subtotal	274.461	137.311	94.683	42.628	4,805.157	4,135.272	669.885
1996	National Total	288.098	154.061	93.595	60.466	4,995.840	4,098.985	896.855
	Local subtotal	287.314	153.924	93.572	60.352	4,994.111	4,097.871	896.240
1997	National Total	298.865	170.083	89.897	80.186	5,191.009	3,860.768	1,330.241
	Local subtotal	298.237	170.083	89.897	80.186	5,191.009	3,860.768	1,330.241
1998	National Total	318.790	194.023	82.386	111.637	5,364.341	3,453.760	1,910.581
	Local subtotal	318.171	194.023	82.386	111.637	5,364.341	3,453.760	1,910.581

N.B. Most vehicles are operated by transport companies administered by local (provincial and lower level) governments.

2. Trucks

Year		All Trucks		Large Trucks		Medium & Small Trucks		Specialty Trucks		Other Vehicles Total
		Total	Tons	Subtotal	Tons	Subtotal	Tons	Total	Tons	
1993	National Total	155.295	1,083.726	152.694	1,078.115	2.601	5.611	6.176	78.281	
	Local subtotal	155.121	1,080.860	151.521	1,075.251	2.600	5.609	5.935	72.896	
1994	National Total	142.184	1,012.099	135.041	994.308	7.143	17.791	6.468	85.884	14.000
	Local subtotal	142.013	1,009.259	134.875	991.476	7.138	17.783	6.240	80.939	14.000
1995	National Total	131.199	945.591	123.173	922.743	8.026	22.848	6.325	85.669	
	Local subtotal	131.069	943.329	123.048	920.590	8.021	22.739	6.081	80.609	
1996	National Total	127.382	918.292	117.615	897.436	9.767	20.856	6.655	102.531	
	Local subtotal	127.304	917.051	117.539	896.202	9.765	20.849	6.086	82.557	
1997	National Total	122.183	850.891	110.936	829.982	11.247	20.909	6.599	102.161	
	Local subtotal	122.106	849.521	110.860	828.616	11.246	20.905	6.048	83.582	
1998	National Total	118.073	795.137	104.758	773.572	13.315	21.565	6.694	105.028	
	Local subtotal	117.991	793.747	104.677	772.186	13.314	21.561	6.157	86.869	

N.B. Most vehicles are operated by transport companies administered by local (provincial and lower level) governments.

Source: China Automotive Industry Corporation, *et al.*, 1999

Table 5B.5(b). Stock of Vehicles of Highway Transportation (thousands)

Year Region	Total	Passenger Vehicles		Trucks			
		Number	Number of Seats	Number	Ordinary Trucks	Capacity	Ordinary Trucks
1990	313.00	107.60	4,689.20	202.17	198.20	1,316.06	1,270.60
1991	316.70	115.30	4,973.50	198.29	193.60	1,320.18	1,265.40
1992	308.70	127.00	5,288.70	181.69	175.90	1,259.11	1,184.20
1993	289.60	128.50	5,095.60	161.47	155.30	1,162.01	1,083.70
1994	279.70	130.50	4,939.40	148.65	142.20	1,097.98	1,012.10
1995	274.90	137.30	4,806.10	137.52	131.20	1,031.26	945.60
1996	288.10	154.10	4,995.80	134.00	127.40	1,020.82	918.30
1997	298.90	170.10	5,191.00	128.80	122.20	953.10	850.90
1998	318.80	194.00	5,364.30	124.80	118.10	900.20	795.10
1999	5,017.70	921.40	14,098.60	4,096.20	4,012.80	14,810.20	14,060.00
2000	7,028.18	2,168.09	25,244.50	4,860.20	4,752.40	16,677.00	15,737.29
2001	7,643.87	2,551.17	27,016.80	5,092.70	4,966.46	17,335.78	16,214.03
2002	8,263.40	2,895.50	29,723.20	5,367.80	5,202.70	18,084.50	16,747.90
2003	9,246.39	3,521.88	34,306.40	5,724.52	5,532.33	19,415.18	17,888.55
2004	10,671.80	4,390.90	38,722.11	6,280.90	6,049.29	23,386.07	21,196.42
2005	7,332.20	1,284.01	18,592.83	6,048.19	5,802.78	25,377.53	22,821.48
2006	8,025.77	1,619.22	23,124.07	6,406.56	5,984.34	28,226.85	23,431.34

NB: The reported jump between 1998 and 1999 is due to statistical anomalies, e.g. a reclassification of vehicles used for highway transport, rather than a massive surge of vehicle ownership.

Source: NBS, China Statistical Yearbook, 2007.

Table 5B.6. Motor Vehicle Production in China ^[1] (thousands)

Year	Motor Vehicles	of which:					Motorcycles ^[3]	Large & Medium Tractors ^{[2] [3]}	Small Tractors ^[4]
		Buses	Sedans	ATVs ^[4]	Trucks ^[3]	Other			
1978	149.10		2.64	12.94	96.10			113.50	324.20
1979	185.70		4.15	17.18				125.60	317.50
1980	222.30		5.42	20.38	135.50			97.90	217.90
1981	175.60		3.43	15.45				52.80	198.90
1982	196.30		4.03	15.33				40.30	298.30
1983	239.80	6.21	6.05	18.25	137.10	72.20		37.00	497.70
1984	316.40	6.99	6.01	16.55	181.80	105.05		39.70	688.60
1985	437.20	11.90	5.21	20.75	269.00	130.35		45.00	822.50
1986	369.80	9.19	12.30	21.89	229.10	97.32		28.60	774.50
1987	471.80	20.46	20.87	27.35	298.40	104.72		37.10	1,106.00
1988	644.70	50.92	36.80	35.98	403.30	117.70		47.20	1,335.70
1989	583.50	47.64	28.83	48.29	363.40	95.34		39.80	1,118.10
1990	514.00	23.15	42.41	44.35	289.70	114.40		39.40	1,101.40
1991	714.20	42.76	81.06	53.37	382.50	154.52		52.70	1,347.80
1992	1,066.70	84.55	162.73	61.75	476.70	280.98		57.00	1,390.70
1993	1,298.50	142.77	229.70	57.06	597.90	271.07		37.70	961.40
1994	1,366.90	139.01	250.33	70.32	663.00	244.24	5,124.80		
1995	1,452.70	247.43	325.46	89.77	596.00	194.04			
1996	1,475.20	267.24	391.10	73.23	625.10	118.53			
1997	1,582.50	265.60	486.00	56.55	573.60		10,334.20	82.40	2,016.40
1998	1,630.00	321.10	507.10	43.61	735.60		8,290.90	67.80	
1999	1,832.00	424.90	571.00		839.60		9,782.00	65.40	
2000	2,070.00	577.90	607.00		862.90		9,601.90	41.00	
2001	2,341.70	720.70	703.60		890.10		10,414.50	38.20	
2002	3,251.00	864.70	1,092.00		1,092.00		11,988.00	45.40	
2003	4,443.90	946.60	2,070.80		1,124.40		14,613.40	48.80	
2004	5,091.10	1,158.40	2,276.30		1,115.60		16,749.20	113.80	
2005	5,704.90	1,282.00	2,770.10		1,494.60		16,909.30	163.30	
2006	7,278.90	1,524.10	3,869.40		1,797.60		20,545.00	199.30	

[1] These are mainly National Bureau of Statistics figures, which in general are slightly larger than other statistics, e.g., the China Automotive Industry Corp. data in subtable 2.

[2] Tractors with power =14.72 kW.

[3] Since 2004, the data on the number of trucks, motorcycles and large & medium tractors has been revised. It is not comparable to previous years.

[4] The number of ATVs and small tractors is not available since 1999 and 1998, respectively.

Source: NBS, China Statistical Yearbook, various years; China Automotive Industry Corporation, *et al.*, 1999; China News Service, 6/29/95.

Table 5B.7. Motor Vehicle Oil Consumption

1. Oil consumption and CO₂ emissions of Chinese on-road vehicles (1997-2002)

Million Tons		1997	1998	1999	2000	2001	2002
Truck	(million tons of oil)						
	HDT-D	4.07	4.98	6.07	7.11	7.77	12.12
	MDT-G	4.65	4.71	4.96	4.59	3.7	2.94
	MDT-D	6.49	6.85	7.36	7.1	6.67	6.82
	LDT-D	3.62	3.5	3.38	3.19	3.11	2.53
	LDT-G	3.64	4.09	4.95	5.63	6.55	7.58
	MT-G	3.34	3.48	3.64	3.81	3.75	3.56
Bus	(million tons of oil)						
	HDB-G	0.02	0.04	0.04	0.05	0.07	0.1
	HDB-D	0.8	0.78	0.68	0.6	0.72	0.84
	MDB-G	2.04	2	1.74	1.42	1.5	1.29
	MDB-D	1.83	1.79	1.55	1.4	1.68	2.22
	LDB-G	3.16	3.27	3.5	3.31	3.59	3.95
	LDB-D	1.26	1.45	1.61	1.48	1.62	1.83
	MB-G	1.77	2.2	2.65	3.4	4.35	5.84
Car	(million tons of oil)	6.1	6.81	7.71	8.58	9.99	11.73
Motorcycle		4.03	5.02	5.67	6.76	7.76	9.14
Total Oil Consumption		46.82	50.97	55.5	58.44	62.83	72.51
	Gasoline	28.73	31.03	33.28	35.11	37.82	41.08
	Diesel	18.09	19.94	22.22	23.32	25.02	31.43
CO₂ emissions							
	(million tons of CO ₂ emission)	147.77	160.88	175.22	184.48	198.36	229.04

Source: He, Wang et al., 2005

Table 5B.8. Length of Highways (thousand km)

1. Paved and unpaved roads

Year	Total	Paved Roads				Unpaved Roads
		Subtotal	High-Level	Mid-Level	Low-Level	
1993	1,083.48	960.24	327.32	321.87	311.04	123.24
1994	1,117.82	998.08	353.14	320.73	324.20	119.74
1995	1,157.01	1,043.39	396.83	322.20	334.36	113.62
1996	1,185.79	1,077.58	425.79	317.49	334.31	108.21
1997	1,226.41	1,128.21	467.49	313.88	346.84	98.20
1998	1,278.47	1,190.09	509.28	320.40	360.41	88.39
1999	1,351.70	1,268.39	552.68	326.71	389.00	83.30
2000	1,402.70	1,322.85	595.51	339.66	387.68	79.85
2001	1,698.00	1,546.00	672.00	439.00	435.00	152.00
2002	1,765.22	1,602.00	722.00	438.00	442.00	163.00
2003	1,809.80	1,647.00	788.00	426.00	433.00	162.00

Year	Total	Paved Roads ^[1]				Unpaved Roads ^[1]
		Subtotal	Asphalt concrete	Cement concrete	Simply-paved	
2003	1,809.80	788.10	145.40	198.90	443.80	1,021.70
2004	1,870.70	897.00	184.60	257.10	455.30	973.70
2005	1,930.50	994.60	226.10	306.60	461.90	935.90

[1] Revised data from 2003. High-level paved roads changed to include asphalt concrete roads and cement concrete roads, mid-level paved roads changed to "simply paved roads", and "low-level and unpaved roads" are included into "unpaved roads" together.

Source: China Automotive Industry Corporation, *et al.*, 1999, 2001; NBS, China Statistical Yearbook, 2006.

2. Length of Highways

Year	Total	Expressway and Class I to IV Highways				Highways Below Class IV
		Expressway	First Class	Second Class		
2001						
2002	1,765.22	1,382.93	25.13	27.47	197.14	382.30
2003	1,809.83	1,438.74	29.75	29.90	211.93	371.09
2004	1,870.66	1,515.83	34.29	33.52	231.72	354.84
2005	1,930.54	1,591.79	41.01	38.38	246.44	338.75
2006 ^[2]	3,457.00	2,282.87	45.34	45.29	262.68	1,174.13

[2] Since 2006, the data are not comparable with previous years.

Source: NBS, China Statistical Yearbook, various years.

Table 5B.9. Stock of Railway Locomotives by Engine Type

1. Central Railway Locomotives

Year	Steam		Diesel		Electric		Total Units
	Quantity (units)	Haulage/Unit (tonnes)	Quantity (units)	Haulage/Unit (tonnes)	Quantity (units)	Haulage/Unit (tonnes)	
1952	4,180		0		0		4,180
1955	4,218		0		0		4,218
1960	6,039		12		2		6,053
1965	6,142		66		30		6,238
1970	6,878		566		60		7,504
1971	7,076		701		85		7,862
1972	7,272		887		94		8,253
1973	7,522		1,064		140		8,726
1974	7,715		1,253		170		9,138
1975	7,824		1,352		191		9,367
1976	7,836		1,478		191		9,505
1977	7,830		1,617		199		9,646
1978	7,828		1,805		221		9,854
1979	7,899		2,014		236		10,149
1980	7,801		2,190		287		10,278
1981	7,718		2,325		317		10,360
1982	7,613		2,508		350		10,471
1983	7,530		2,734		407		10,671
1984	7,551	2,156	3,102	2,018	484	2,248	11,137
1985	7,674	2,192	3,511	2,216	587	2,378	11,772
1986	7,542	2,212	4,017	2,379	707	2,483	12,266
1987	7,381	2,207	4,400	2,460	948	2,577	12,729
1988	7,130	2,191	4,836	2,489	1,197	2,597	13,163
1989	6,686	2,155	5,250	2,563	1,430	2,639	13,366
1990	6,279	2,097	5,680	2,578	1,633	2,634	13,592
1991	5,986	2,104	6,111	2,591	1,809	2,639	13,906
1992	5,498	2,102	6,582	2,603	2,003	2,693	14,083
1993	5,109	2,052	7,092	2,618	2,196	2,759	14,397
1994	4,665		7,673		2,356		14,694
1995	4,347		8,282		2,517		15,146
1996	3,781		8,944		2,678		15,403
1997	2,931		9,583		2,821		15,335
1998	2,061		10,004		3,111		15,176
1999	1,015		10,121		3,344		14,480
2000	601		10,355		3,516		14,472
2001	381		10,598		3,976		14,955
2002	109		10,752		3,876		15,159
2003	94		10,778		4,584		15,456
2004	82		11,135		4,849		16,066
2005	94		11,331		5,122		16,547
2006	91		11,348		5,465		16,904

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 5B.9. Stock of Railway Locomotives by Engine Type (continued)

2. Local Railway Locomotives

Year	Steam Locomotives (units)	Diesel Locomotives (units)	Electric Locomotives (units)	Total Units
1978	211	114		325
1979				
1980	279	126		405
1981				
1982				
1983				
1984				
1985	239	129		368
1986	250	124		374
1987	247	122		369
1988	233	128		361
1989	233	122		355
1990	253	125		378
1991	264	125		389
1992	259	125		384
1993	261	123		384
1994	263	128		391
1995	260	129		389
1996	260	129		389
1997	282	130		412
1998	231	155		386
1999	200	161		361
2000	159	168		327
2001	167	181		348
2002	141	216		357
2003	131	228		359
2004	89	263		352
2005	59	289		348
2006	31	279	4	314

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 5B.10. Rail, Water, and Air Freight Transport Energy Intensities^[1] 1980-2006

1. Rail Transport

Railway Administration	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Steam Locomotives	kg per 1000 t-km														
Reported Average, Key Enterprises		10.64					10.60	10.82	11.09	11.37	12.03	12.51	12.49		
Diesel Locomotives	kg diesel/1000 t-km														
Reported Average, Key Enterprises		3.5	3.41	3.29	3.24	3.14	2.88	2.68	2.59	2.52	2.44	2.44	2.43	2.44	2.44
Electric Locomotives	kWh/1000 t-km														
Average		12.8	12.21	12.06	12.48	12.72	12.15	11.40	11.25	11.26	11.02	11.10	11.26	11.24	11.12

Railway Administration	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Steam Locomotives	kg per 1000 t-km													
Reported Average, Key Enterprises						17.58	20.66	20.78	19.50	42.13	33.05			
Diesel Locomotives	kg diesel/1000 t-km													
Reported Average, Key Enterprises		2.42	2.42	2.46		2.60	2.62	2.58	2.57	2.59	2.54	2.50	2.46	2.43
Electric Locomotives	kWh/1000 t-km													
Average		11.08	10.94	10.99		11.27	11.36	11.32	11.31	11.08	11.00	11.12	11.18	11.00

2. Water Transport (ocean and coastal shipping units)

		1978	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
State ocean shipping	kg/1000 t-naut.mile	9.50	8.67	8.20	8.17	7.60	7.52	7.58	8.00	7.10	7.30	7.56	8.02	7.31	7.64	7.66	8.05
State coastal shipping	kg/1000 t-naut.mile	9.70	8.67	9.39	9.62	9.22	9.11	8.80	8.20	8.20	8.20	7.90	8.11	8.37	6.13	6.93	6.67
State inland shipping	kg/1000 t-naut.mile	8.90	7.73	7.02	6.74	6.80	6.68	6.61	7.00	6.80	6.60	6.50	6.54	6.21	7.13	5.94	5.96
Local motorboat	kg/1000 t-km	13.7	12.8	10.3	10.1	9.8	9.4	9.4	9.6	9.1	8.6	9.0	9.2	9.0	8.0	9.0	9.0
Local ocean shipping	kg/1000 t-km				13.1	13.4	11.6	11.3	11.6	11.0	10.0	10.7	11.1	10.0	8.0	9.0	11.0
Local coastal shipping	kg/1000 t-km				8.6	8.2	7.8	8.3	7.7	7.8	7.7	7.6	7.8	8.0	8.0	8.0	7.0
Local inland shipping	kg/1000 t-km				10.0	9.7	9.4	9.2	9.5	9.9	9.4	8.9	9.2	9.5	10.0	10.0	10.0
		1999	2000	2001	2002	2003	2004	2005	2006								
Average fuel consumption	kg/1000 t-km	8.0	9.0	2.0	6.0	6.0	6.0	7.0	5.0								

3. Air Transport (civil aviation)

		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Average	kg/t-km	0.66	0.68	0.64	0.66	0.64	0.51	0.50	0.49	0.44	0.50	0.50	0.44	0.42	0.45
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Average	kg/t-km	0.45	0.43	0.43	0.44	0.46	0.42	0.40	0.38	0.36	0.35	0.34	0.34	0.33	

N.B. Water transport includes only dedicated shipping enterprises, excluding the large number of vessels operated privately and by non-transportation enterprises.

Source: SSB, China Energy Statistical Yearbook, 1989 and 1991; CTA, China Transportation Yearbook, 1994; Energy of China, no. 3, 1994; SPC, 1993, 1997.

Figure 5B.4. Central Railway Locomotive Stock, 1952-2006

Table 5B.11. Major Appliances

1. Stock, millions

Year	Electric Fans	TV Sets	Clothes	
			Washers	Refrigerators
1978	9.20	3.04	0.01	0.09
1979	10.50	4.85	0.03	0.13
1980	13.65	9.02	0.26	0.19
1981	17.92	15.62	1.50	0.25
1982	25.91	27.61	5.90	0.44
1983	33.57	36.11	12.52	1.05
1984	43.40	47.63	19.28	1.82
1985	63.60	69.65	30.30	4.10
1986	86.05	92.14	43.33	7.27
1987	111.88	116.01	57.62	11.81
1988	145.46	143.44	74.64	19.27
1989	173.33	165.93	87.01	25.54
1990	201.27	185.46	96.28	29.96
1991	229.89	206.71	106.15	34.66
1992	257.74	228.43	117.09	39.41

NB: Appliance stock reporting ended in 1992.

Source: NBS, China Statistical Yearbook, various years; China Industry Economy Statistical Yearbook, various years.

2. Output, millions

Year	Electric Fans	TV Sets	Washing Machines	Refrigerators	Room Air Conditioners
1978	1.38	0.52	<0.01	0.03	<0.01
1979	2.33	1.33	0.02	0.03	0.01
1980	7.24	2.49	0.25	0.05	0.01
1981	10.50	2.39	1.28	0.06	0.01
1982	9.19	5.92	2.53	0.10	0.02
1983	10.46	6.84	3.66	0.19	0.03
1984	17.71	10.04	5.78	0.55	0.06
1985	31.75	16.68	8.87	1.45	0.12
1986	35.29	14.59	8.93	2.25	0.10
1987	36.61	19.34	9.90	4.01	0.13
1988	44.96	25.05	10.47	7.58	0.26
1989	49.92	27.67	8.25	6.71	0.37
1990	57.99	26.85	6.63	4.63	0.24
1991	62.19	26.91	6.87	4.70	0.63
1992	68.37	28.68	7.08	4.86	1.58
1993	73.87	30.33	8.76	5.97	3.46
1994	86.13	32.83	10.10	7.30	3.93
1995	129.67	34.96	9.48	9.18	6.83
1996	102.91	35.42	10.75	9.79	7.86
1997	81.71	36.37	12.55	10.44	9.74
1998	67.25	34.97	12.07	10.60	11.57
1999	61.58	42.62	13.42	12.10	13.38
2000	76.62	39.36	14.43	12.79	18.27
2001	96.16	40.94	13.42	13.51	23.34
2002	107.61	51.55	15.96	15.99	35.35
2003	129.81	65.41	19.64	22.43	48.21
2004	141.70	74.32	25.33	30.08	63.90
2005	120.22	82.83	30.36	29.87	67.65
2006	144.66	83.75	35.61	35.31	68.49

Source: NBS, China Statistical Yearbook, various years.

3. Production and Export of Selected Appliances (million units)

Year	Washing Machines		Refrigerators		Room Air Conditioners		Televisions	
	Production	Exports	Production	Exports	Production	Exports	Production	Exports
1995	9.5	0.5	9.2	1.0	6.8	0.3	20.6	5.7
1996	10.7	0.6	9.8	1.0	7.9	0.3	25.4	5.3
1997	12.5	0.7	10.4	1.2	9.7	0.7	27.1	4.1
1998	12.1	0.5	10.6	1.5	11.6	1.1	35.0	4.3
1999	13.4	0.6	12.1	2.1	13.4	1.8	42.6	5.7
2000	14.4	1.0	12.8	3.5	18.3	3.2	39.4	10.3
2001	13.4	1.6	13.5	4.5	23.3	5.6	40.9	11.6
2002	16.0	2.2	16.0	6.1	31.4	9.2	51.6	18.8
2003	19.6	3.7	22.4	8.8	48.2	18.9	65.4	31.3
2004	25.3	6.3	30.1	12.9	63.9	26.7	74.3	44.1
2005	30.4	9.6	29.9	13.8	67.6	28.3	82.8	n/a

Source: China Statistical Yearbook; China Customs.

Figure 5B.5. Annual Appliance Output, 1978-2006

Table 5B.12. Urban Household Survey Data^[1]

	1981	1982	1983	1984	1985	1986	1987	1988	1989
Surveyed Households	8,715	9,020	9,060	12,500	24,338	31,126	32,855	34,945	35,235
People per Household	4.24	4.14	4.06	4.04	3.89	3.82	3.74	3.63	3.55
Average Annual Income ^[2] (yuan/yr)	2,122.00	2,216.00	2,326.00	2,667.00	2,913.00	3,476.00	3,786.00	4,327.00	4,926.73
Per Capita Annual Living Expenditures for Consumption (yuan)	456.84	471.00	505.92	559.44	673.20	798.96	884.40	1,103.98	1,210.95
of which water, electricity, fuels and others (yuan)	13.32	13.80	14.52	15.45	18.38	20.85	22.64	27.49	34.51
Per Capita Net Living Space in Urban Area (m ²)	4.10	4.40	4.60	4.90	5.20	6.00	6.10	6.30	6.60
Coal Use per Household (kg/yr)	1,018.00	950.00	931.00	1,029.00	1,053.00	1,022.00	884.00	1,019.00	772.23
Appliances per 100 Households:									
Fans	43.00	53.00	64.00	66.00	74.00	90.00	104.00	118.00	128.68
B & W TV Sets	57.00	72.00	81.00	82.00	67.00	65.00	65.00	59.00	55.71
Color TV Sets	0.60	1.00	3.00	5.00	17.00	27.00	35.00	44.00	51.47
Clothes Washers ^[3]	6.00	16.00	29.00	40.00	48.00	60.00	67.00	73.00	76.21
Refrigerators	0.20	0.70	2.00	3.00	7.00	13.00	20.00	28.00	36.47
Freezers									
Room Air Conditioners					0.08				
Electric Cooking Utensils ^[4]					19.00				

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Surveyed Households	35,660	36,730	36,290	35,390	34,940	35,520	36,370	37,890	39,080
People per Household	3.50	3.43	3.37	3.31	3.28	3.23	3.20	3.19	3.16
Average Annual Income ^[2] (yuan/yr)	5,329.77	5,875.93	6,846.26	8,550.26	3,502.31	4,288.09	4,844.78	5,188.54	5,458.34
Per Capita Annual Living Expenditures for Consumption (yuan)	1,278.89	1,453.81	1,671.73	2,110.87	2,851.34	3,537.57	3,919.47	4,185.64	4,331.61
of which water, electricity, fuels and others (yuan)	36.45	28.43	34.00	87.08	114.16	146.56	176.71	209.98	235.42
Per Capita Net Living Space in Urban Area (m ²)	6.70	6.90	7.10	7.50	7.80	8.10	8.50	8.80	9.30
Per capita gross residential building area (m ²)	13.70	14.20	14.80	15.20	15.70	16.30	17.00	17.80	18.70
Coal Use per Household (kg/yr)	721.14	706.72	694.35	681.99	675.81	665.51	659.33	657.27	651.09
Appliances per 100 Households:									
Fans	135.50	143.48	146.03	151.64	153.79	167.35	168.07	165.74	168.37
B & W TV Sets ^[5]	52.36	43.93	37.71	35.92	30.47	27.97	25.53		
Color TV Sets	59.04	68.41	74.87	79.46	86.21	89.97	93.50	100.48	105.43
Clothes Washers ^[6]	78.41	80.58	83.41	86.36	87.29	88.97	90.06	89.12	90.57
Refrigerators	42.33	48.70	52.60	56.68	62.10	66.22	69.67	72.98	76.08
Freezers			1.07	1.62	2.25	2.87	3.48	4.46	4.80
Room Air Conditioners	0.34		1.19	2.33	5.00	8.09	11.61	16.29	20.01
Electric Cooking Utensils ^[4]	46.18		58.52	66.72	74.81	84.14	91.10	92.35	95.98

[1] Surveys were conducted among a wide variety of cities. Data may not be statistically representative of all urban areas in China.

[2] Current yuan per household.

[3] Chinese clothes washers are mainly small capacity, single- or double-tube, manual and semi-automatic washers.

[4] Electric rice cookers and other utensils.

[5] Data of B&W TV is not available after 1996.

[6] The data series are not available after 2001.

[7] Since 2002, the subjects of urban households survey are permanent residents of city districts and county towns only. Historical data have been adjusted accordingly. The relative data are calculated according to the new standard, and historical data have been adjusted accordingly.

[8] Data of per capita gross residential building area for 2006 is not available.

Source: NBS, China Statistical Yearbook, various years.

Table 5B.12. Urban Household Survey Data^[1] (continued)

	1999	2000	2001
Surveyed Households	40,044.01	4,220	43,840
People per Household	3.14	3.13	3.10
Average Annual Income ^[2] (yuan/yr)	5,888.77	6,316.81	6,907.08
Per Capita Annual Living Expenditures for Consumption (yuan)	4,615.91	4,998.00	5,309.01
of which water, electricity, fuels and others (yuan)	258.09	298.89	330.99
Per Capita Net Living Space in Urban Area (m ²) ^[6]	9.78	10.25	15.50
Per capita gross residential building area (m ²)	19.40	20.30	20.80
Coal Use per Household (kg/yr) ^[6]	646.97		

Appliances per 100 Households:

Fans	171.73	167.91	170.74
Color TV Sets	111.57	116.56	120.52
Clothes Washers ^[3]	91.44	90.52	92.22
Refrigerators	77.74	80.13	81.87
Freezers	5.37	6.52	6.62
Room Air Conditioners	24.48	30.76	35.79
Automobiles	0.34	0.50	0.60
Mobile Phones	7.14	19.50	34.00
Electric Cooking Utensils ^[4]	101.82	101.94	107.87

	2002 ^[7]	2003	2004	2005	2006
Surveyed Households	45317.00	48028.00	50430.00	54496.00	56094.00
People per Household	3.04	3.01	2.98	2.96	2.95
Average Annual Income ^[2] (yuan/yr)	8177.40	9061.22	10128.51	11320.77	12719.19
Per Capita Annual Living Expenditures for Consumption (yuan)	6029.88	6510.94	7182.10	7942.88	8696.55
of which water, electricity, fuels and others (yuan)	357.00	412.73	451.49	561.31	569.36
Per capita gross residential building area (m ²) ^[8]	22.80	23.70	25.00	26.10	

Appliances per 100 Households:

Fans	182.57	181.58	179.56	172.18	174.59
Color TV Sets	126.38	130.50	133.44	134.80	137.43
Clothes Washers ^[3]	92.90	94.41	95.90	95.51	96.77
Refrigerators	87.38	88.73	90.15	90.72	91.75
Freezers	6.81	6.97	6.73	6.68	6.93
Room Air Conditioners	51.10	61.79	69.81	80.67	87.79
Electric Cooking Utensils	96.02	101.19	106.38	107.20	113.19
Video Recorder	18.43	17.91	17.55	15.49	15.08
Water Heater for Shower	62.42	66.61	69.40	72.65	75.13
Exhaust Fan	60.67	63.55	65.58	67.93	69.78
Video Disc Player	52.57	58.69	63.26	68.07	70.15
Automobiles	0.88	1.36	2.18	3.37	4.32
Mobile Phones	62.89	90.07	111.35	94.40	93.30
Computer	20.63	27.81	33.11	41.52	47.20
Microwave Oven	30.91	36.96	41.70	47.61	50.61

[1] Surveys were conducted among a wide variety of cities. Data may not be statistically representative of all urban areas in China.

[2] Current yuan per household.

[3] Chinese clothes washers are mainly small capacity, single- or double-tube, manual and semi-automatic washers.

[4] Electric rice cookers and other utensils.

[5] Data of B&W TV is not available after 1996.

[6] The data series are not available after 2001.

[7] Since 2002, the subjects of urban households survey are permanent residents of city districts and county towns only. Historical data have been adjusted accordingly. The relative data are calculated according to the new standard, and historical data have been adjusted accordingly.

[8] Data of per capita gross residential building area for 2006 is not available.

Source: NBS, China Statistical Yearbook, various years.

Figure 5B.6. Urban Appliance Ownership, 1980-2006

Figure 5B.6. Urban Appliance Ownership, 2002-2006

Table 5B.13. Urban Ownership of Energy-Using Durable Goods by Province, 2002-2006

1. 2002, Ownership in units per 100 households

Region	Province	Motorcycles	Motor Vehicles	Washing Machines	Refrigerators	Color TVs	Personal Computers	Microwave Ovens	Air Conditioners	Space Heaters	Electric Cookers	Water Heaters	Water (Hot) Dispensers
North	Beijing	5.54	4.05	98.58	101.62	148.43	55.54	73.12	106.46	30.49	98.05	83.53	37.91
	Tianjin	8.32	1.09	92.55	97.50	126.27	24.12	47.36	76.78	10.09	88.29	75.63	17.46
	Hebei	31.37	1.41	96.10	91.06	121.24	13.57	20.07	47.10	10.17	58.23	61.82	20.48
	Shanxi	26.63	0.89	94.00	76.40	111.62	12.08	12.05	13.43	9.28	34.27	26.58	23.94
	Inner Mongolia	25.46	0.88	90.95	77.25	109.89	8.01	9.55	2.23	5.24	142.76	29.84	17.81
Northeast	Liaoning	6.18	0.43	88.04	85.58	118.39	16.83	24.32	9.65	14.33	77.47	56.03	15.93
	Jilin	11.86	0.39	93.26	77.72	115.75	11.19	16.75	2.47	7.92	119.06	34.07	16.07
	Heilongjiang	6.92	0.72	88.24	70.36	107.63	9.88	12.67	3.65	6.78	159.28	22.94	15.27
East	Shanghai	2.88	0.25	91.15	102.82	157.78	47.25	86.12	113.87	85.33	162.68	74.20	46.75
	Jiangsu	22.49	0.15	97.33	90.67	136.01	19.72	55.13	67.40	49.32	118.04	64.50	41.34
	Zhejiang	18.66	1.26	91.69	97.84	149.77	27.27	39.75	81.64	31.26	104.25	78.63	35.93
	Anhui	16.30	0.26	91.22	87.43	120.58	11.84	22.34	50.65	32.95	87.52	49.95	22.31
	Fujian	39.42	0.72	96.46	94.53	136.92	24.86	45.96	74.45	11.19	110.17	89.51	22.64
	Jiangxi	17.54	0.16	92.51	83.65	123.83	10.97	17.60	34.86	57.28	73.82	65.25	22.45
	Shandong	43.41	1.02	88.60	88.62	115.85	20.55	26.18	40.26	27.13	75.25	59.29	52.15
South-Central	Henan	23.11	0.26	93.63	81.87	119.47	14.37	15.42	59.38	27.21	58.86	36.38	25.30
	Hubei	13.07	0.17	94.50	93.99	126.08	21.21	32.07	70.52	53.38	106.66	62.98	17.61
	Hunan	13.69	0.33	93.56	84.73	120.03	19.73	22.73	45.76	57.45	57.03	61.04	21.08
	Guangdong	71.28	3.33	97.33	89.67	149.29	44.70	48.00	125.54	7.42	101.58	101.27	23.47
	Guangxi	45.78	0.53	88.20	83.62	124.48	19.31	29.70	38.98	17.63	114.27	89.92	19.23
	Hainan	60.17	1.36	76.65	69.88	116.19	14.24	15.19	25.43		138.99	74.39	14.14
Southwest	Chongqing	2.06	0.14	98.19	98.92	142.17	25.33	52.11	106.89	28.92	77.36	92.14	24.64
	Sichuan	4.98	0.76	93.49	88.17	128.72	15.19	25.05	37.97	39.96	99.02	79.62	22.98
	Guizhou	6.84	0.52	94.46	85.38	121.89	11.60	22.95	3.22	39.50	103.35	40.04	38.59
	Yunnan	25.63	1.54	92.37	75.09	122.61	14.68	25.40		20.96	150.39	49.43	35.78
	Xizang (Tibet)	8.42	1.00	89.00	90.00	122.75	9.42	14.92	2.08	40.83	15.17	13.17	24.50
Northwest	Shaanxi	11.80	0.24	95.06	81.58	119.99	11.99	22.09	45.20	13.92	90.31	49.51	21.23
	Gansu	10.85	0.05	94.69	84.43	110.36	10.86	11.10	1.07	4.53	68.21	45.81	26.18
	Qinghai	7.46	1.22	95.01	74.14	114.59	7.88	20.14	0.05	16.16	42.82	25.46	23.96
	Ningxia	18.78	0.53	89.69	76.98	110.09	8.64	13.13	1.36	5.56	125.55	46.43	22.90
	Xinjiang	12.48	0.46	90.79	86.40	111.15	12.74	12.25	4.93	8.30	87.16	60.26	22.88
National Average		22.19	0.88	92.90	87.38	126.38	20.63	30.91	51.10	27.86	96.02	62.42	26.65

2. 2003, Ownership in units per 100 households

Region	Province	Motorcycles	Motor Vehicles	Washing Machines	Refrigerators	Color TVs	Personal Computers	Microwave Ovens	Air Conditioners	Space Heaters	Electric Cookers	Water Heaters	Water (Hot) Dispensers
North	Beijing	5.59	6.60	99.25	100.40	146.99	68.31	79.20	119.31	32.88	107.79	85.42	42.32
	Tianjin	8.87	2.20	96.33	98.47	134.53	34.07	61.40	90.87	21.80	101.13	82.73	31.33
	Hebei	34.62	1.96	99.21	93.70	125.22	18.34	26.93	55.91	14.83	65.23	66.47	25.68
	Shanxi	26.00	1.16	97.22	78.96	114.40	18.01	14.63	18.17	10.27	38.95	31.06	27.83
	Inner Mongolia	29.08	1.33	93.41	78.96	113.97	12.07	14.49	3.01	5.79	148.45	33.50	21.18
Northeast	Liaoning	6.97	0.58	89.26	87.05	121.57	23.12	31.39	11.21	16.83	94.74	57.74	20.21
	Jilin	13.38	0.57	95.10	79.19	120.41	14.07	20.38	3.31	9.03	128.23	34.52	19.00
	Heilongjiang	8.76	1.07	89.65	73.30	110.44	13.77	16.06	4.89	9.20	165.50	26.69	20.56
East	Shanghai	3.80	1.80	94.00	102.00	167.60	60.40	87.60	135.80	73.20	154.40	80.60	55.60
	Jiangsu	27.58	1.50	97.65	90.29	142.52	27.91	63.52	90.94	50.21	108.68	72.76	47.33
	Zhejiang	25.53	2.98	92.69	98.60	159.39	40.23	51.21	105.23	44.09	112.09	82.98	45.04
	Anhui	17.65	0.18	93.20	88.54	124.17	16.98	28.18	61.75	44.28	90.99	61.69	23.98
	Fujian	42.37	0.73	97.74	96.23	147.35	39.35	56.88	99.88	13.70	125.31	94.90	28.82
	Jiangxi	18.13	0.21	93.92	84.97	130.37	16.05	23.04	46.01	64.44	77.43	69.22	24.08
	Shandong	46.12	1.28	92.13	90.52	119.60	31.43	31.89	52.31	28.85	82.48	65.83	56.92
South-Central	Henan	25.65	0.54	95.94	83.69	124.19	19.19	20.37	73.07	33.46	69.63	41.54	30.63
	Hubei	13.91	0.21	94.85	94.44	128.34	27.68	37.99	77.75	60.55	110.46	67.96	22.26
	Hunan	14.75	0.27	95.25	87.06	124.82	26.67	30.81	55.38	68.59	57.90	64.02	23.35
	Guangdong	75.18	4.37	97.71	92.56	152.52	56.02	54.64	141.99	10.20	107.49	104.89	31.66
	Guangxi	46.87	0.82	90.68	85.47	126.84	23.36	33.02	46.82	21.08	124.94	94.00	22.80
	Hainan	63.71	2.25	77.16	70.21	117.86	15.61	16.77	29.66		144.14	76.11	16.79
Southwest	Chongqing	2.00	1.33	97.67	98.00	150.67	34.67	58.67	126.67	35.67	70.33	92.00	33.33
	Sichuan	6.62	0.88	94.01	91.16	131.89	21.29	32.10	56.21	44.04	107.08	82.06	26.69
	Guizhou	7.74	0.46	95.58	84.71	122.11	17.51	28.09	4.58	55.47	106.31	46.25	46.13
	Yunnan	28.34	2.20	93.16	77.09	124.57	18.61	32.21	0.10	26.54	151.06	48.98	40.29
	Xizang (Tibet)	6.00	2.00	91.00	84.00	132.00	16.00	24.00	4.00	43.00	20.00	22.00	30.00
Northwest	Shaanxi	15.69	0.44	94.94	81.47	123.15	18.86	30.59	59.34	18.51	87.05	58.49	32.64
	Gansu	10.97	0.11	96.39	85.71	119.32	14.40	17.64	1.96	9.16	73.71	49.17	32.67
	Qinghai	7.09	0.81	99.10	78.45	119.25	13.27	26.76	0.29	22.73	50.37	29.65	27.95
	Ningxia	16.24	0.52	91.82	79.53	113.83	12.86	20.63	2.58	8.11	136.37	50.88	27.75
	Xinjiang	14.34	0.51	91.93	84.33	112.39	15.81	12.96	4.92	8.68	86.02	61.83	24.97
National Average		24.00	1.36	94.41	88.73	130.50	27.81	36.96	61.79	32.26	101.19	66.61	31.94

Source: NBS, China Statistical Yearbook, 2004.

3. 2004, Ownership in units per 100 households

Region	Province	Motorcycles	Motor Vehicles	Washing Machines	Refrigerators	Color TVs	Personal Computers	Microwave Ovens	Air Conditioners	Space Heaters	Electric Cookers	Water Heaters	Water (Hot) Dispensers
North	Beijing	5.65	12.64	102.02	102.60	150.61	79.44	86.86	135.66	31.92	120.43	94.07	52.91
	Tianjin	8.53	2.33	95.87	98.93	136.47	41.20	68.87	95.33	25.27	103.00	85.80	36.53
	Hebei	36.33	2.23	100.14	95.26	127.23	23.82	30.87	61.56	17.06	68.75	69.38	30.17
	Shanxi	27.68	1.23	99.39	81.06	116.24	22.93	17.60	21.33	11.56	41.82	34.56	31.39
	Inner Mongolia	27.35	3.47	93.45	83.59	110.53	19.02	22.53	6.10	5.54	149.04	40.25	30.08
Northeast	Liaoning	7.28	0.42	91.88	88.68	122.29	27.87	37.37	12.10	17.37	93.73	60.49	23.16
	Jilin	15.66	1.16	97.62	82.20	124.89	20.85	30.91	3.81	11.66	131.47	40.90	26.07
	Heilongjiang	9.20	0.95	92.25	75.73	112.98	17.29	20.03	5.75	10.20	174.83	30.81	24.65
East	Shanghai	3.00	3.60	95.60	103.50	177.50	69.90	93.30	159.20	79.30	176.30	88.40	58.50
	Jiangsu	27.59	1.83	98.85	90.94	145.41	31.68	65.41	98.72	50.84	115.01	74.81	47.41
	Zhejiang	29.41	3.52	94.94	98.93	163.14	44.72	51.65	115.70	41.48	123.66	80.70	46.67
	Anhui	18.88	0.53	95.68	89.85	127.66	19.31	34.06	69.77	41.22	94.49	59.92	25.23
	Fujian	48.89	1.42	98.08	97.08	158.42	46.56	68.29	126.62	16.61	125.92	98.52	34.29
	Jiangxi	18.98	0.36	96.24	87.28	135.35	19.98	28.66	53.92	68.70	84.09	72.69	28.30
	Shandong	47.20	2.51	92.89	91.21	119.59	37.71	35.62	61.67	31.96	87.17	69.04	60.91
South-Central	Henan	26.85	0.76	97.05	84.62	125.21	22.09	23.87	81.80	35.81	75.39	45.63	33.83
	Hubei	15.80	0.31	97.80	96.20	131.69	32.40	40.16	85.79	62.87	116.96	71.04	26.87
	Hunan	17.32	0.56	95.55	87.60	129.55	27.67	34.49	65.84	70.11	62.02	66.07	28.73
	Guangdong	76.91	6.56	97.36	93.42	154.69	64.28	58.65	155.95	11.81	116.45	105.16	38.57
	Guangxi	44.55	0.48	93.80	92.67	138.10	32.64	39.78	63.96	28.00	152.91	96.70	26.93
	Hainan	67.54	2.25	80.51	71.41	118.51	18.96	20.63	36.20		149.19	79.46	19.51
Southwest	Chongqing	2.33	0.33	99.33	99.67	153.33	43.67	66.33	152.33	34.67	83.00	96.33	45.33
	Sichuan	7.87	2.14	96.23	92.91	135.71	26.43	36.95	65.92	42.29	103.58	83.99	32.07
	Guizhou	8.61	0.38	98.05	86.43	125.27	21.02	32.70	6.38	59.81	108.61	50.72	51.83
	Yunnan	20.43	6.91	91.11	77.31	122.91	25.73	41.15	0.34	28.63	115.51	50.90	57.83
	Xizang (Tibet)	7.00	2.00	93.00	84.00	133.00	17.00	30.00	5.00	54.00	23.00	25.00	37.00
Northwest	Shaanxi	15.04	0.35	97.00	81.65	127.87	23.51	32.14	65.01	21.27	89.40	61.21	34.63
	Gansu	12.18	0.23	96.53	87.57	120.32	20.66	22.34	2.78	12.90	81.33	55.74	38.25
	Qinghai	6.98	0.67	102.34	81.71	122.44	16.46	31.93	1.00	25.54	52.52	32.72	29.63
	Ningxia	17.57	0.36	93.70	80.48	116.00	15.04	23.05	2.95	10.33	144.44	55.32	30.32
	Xinjiang	19.10	0.79	91.46	83.52	111.95	17.84	14.29	6.15	7.58	76.99	61.46	26.82
National Average		24.84	2.18	95.90	90.15	133.44	33.11	41.70	69.81	33.73	106.38	69.40	36.83

Source: NBS, China Statistical Yearbook, 2005.

4. 2005, Ownership in units per 100 households

Region	Province	Motorcycles	Motor Vehicles	Washing Machines	Refrigerators	Color TVs	Personal Computers	Microwave Ovens	Air Conditioners	Space Heaters	Electric Cookers	Water Heaters	Water (Hot) Dispensers
North	Beijing	6.32	14.06	104.96	104.02	152.81	89.16	89.14	146.47	36.06	132.70	97.01	57.07
	Tianjin	8.13	3.00	95.80	97.80	136.27	51.13	74.33	102.13	22.40	97.33	86.47	40.07
	Hebei	31.56	3.94	95.52	92.07	124.34	37.63	40.27	81.43	18.33	71.29	68.13	41.38
	Shanxi	26.23	3.13	99.77	87.08	113.69	30.16	25.59	25.93	11.12	45.13	37.87	38.55
	Inner Mongolia	27.43	3.64	95.29	85.51	113.34	23.17	26.18	7.64	5.71	156.76	42.59	31.14
Northeast	Liaoning	7.34	1.16	87.88	88.19	122.07	32.88	41.94	14.29	15.43	85.50	60.52	25.49
	Jilin	15.91	1.41	97.02	84.59	126.59	30.06	35.77	4.77	11.63	125.53	42.48	30.22
	Heilongjiang	9.19	1.51	91.62	77.88	112.36	25.94	29.08	7.18	7.78	162.43	30.47	32.84
East	Shanghai	2.70	3.80	97.30	104.40	176.70	81.10	95.80	168.30	81.60	180.10	90.30	59.10
	Jiangsu	27.42	4.29	99.38	91.89	153.19	46.35	76.50	123.92	50.35	116.32	82.69	50.78
	Zhejiang	32.65	8.71	91.45	97.79	178.62	59.47	58.24	146.89	45.15	115.30	90.35	56.87
	Anhui	21.87	0.76	97.28	91.75	132.42	25.97	40.54	81.82	44.83	97.06	64.14	29.92
	Fujian	49.39	1.70	99.72	98.43	164.49	54.89	70.27	134.86	20.02	138.87	101.02	35.93
	Jiangxi	24.38	0.73	95.29	90.66	139.31	32.03	38.93	72.41	80.29	84.02	81.77	38.35
	Shandong	47.55	4.47	93.28	90.96	118.30	45.64	42.88	74.40	30.38	90.63	72.42	65.49
South-Central	Henan	28.14	1.58	98.23	86.33	124.62	31.82	30.36	93.55	37.05	80.31	50.61	44.83
	Hubei	18.11	0.92	95.55	95.58	131.71	42.42	46.86	100.63	65.51	111.99	76.74	32.29
	Hunan	15.41	1.10	96.55	90.30	129.23	34.94	36.92	78.49	75.82	67.64	68.56	36.03
	Guangdong	72.83	9.69	97.23	93.90	155.26	70.34	61.05	168.66	12.95	122.64	105.23	41.95
	Guangxi	48.26	1.88	91.64	87.20	140.39	46.67	51.11	82.20	33.36	135.94	97.05	41.92
	Hainan	55.43	3.52	56.33	67.00	117.32	26.21	20.74	45.80	0.23	127.50	69.48	30.46
Southwest	Chongqing	2.67	0.67	100.33	102.00	155.33	51.33	71.00	156.67	42.00	91.00	94.33	47.33
	Sichuan	7.94	2.37	97.88	92.85	138.87	32.26	42.72	77.14	45.70	111.48	88.15	38.55
	Guizhou	7.29	1.81	97.10	86.13	124.51	23.99	35.18	10.66	59.68	98.12	55.37	55.85
	Yunnan	21.97	7.92	90.07	78.21	122.12	29.44	44.77	0.43	33.99	114.49	64.80	62.87
	Xizang (Tibet)	7.00	3.00	95.00	88.00	135.00	19.00	34.00	5.00	58.00	25.00	25.00	39.00
Northwest	Shaanxi	15.45	0.44	98.29	82.89	128.90	27.92	35.04	70.37	21.37	94.00	63.16	33.99
	Gansu	10.83	0.46	98.35	89.08	117.98	22.99	28.13	3.61	16.26	94.39	59.93	43.22
	Qinghai	6.69	1.39	98.41	80.74	111.68	21.68	38.22		22.06	53.52	43.87	34.44
	Ningxia	18.59	1.27	89.61	79.48	108.64	23.15	30.91	6.68	9.97	127.31	60.87	35.60
	Xinjiang	16.04	2.81	88.53	79.72	105.70	23.86	19.68	7.02	6.81	77.97	59.58	32.65
National Average		25.00	3.37	95.51	90.72	134.80	41.52	47.61	80.67	35.51	107.20	72.65	42.40

Source: NBS, China Statistical Yearbook, 2006.

5. 2006, Ownership in units per 100 households

Region	Province	Motorcycles	Motor Vehicles	Washing Machines	Refrigerators	Color TVs	Personal Computers	Microwave Ovens	Air Conditioners	Space Heaters	Electric Cookers	Water Heaters	Water (Hot) Dispensers
North	Beijing	6.13	18.14	106.89	104.77	155.30	95.70	90.83	157.09	36.70	142.20	98.07	58.85
	Tianjin	6.27	4.60	96.80	98.27	135.87	59.20	77.93	115.67	22.53	100.00	87.07	43.07
	Hebei	31.96	4.50	97.91	93.60	126.73	42.68	44.22	86.72	21.39	80.06	71.59	43.55
	Shanxi	26.69	4.01	102.06	88.62	114.99	35.24	26.92	28.79	12.12	50.28	41.12	40.06
	Inner Mongolia	27.61	4.49	95.91	86.81	113.35	26.82	28.35	9.04	6.21	160.91	45.03	31.89
Northeast	Liaoning	7.09	1.56	89.29	89.37	123.54	34.98	44.55	14.97	15.09	91.30	61.50	26.74
	Jilin	17.18	1.97	97.80	85.07	128.86	34.74	38.97	5.29	12.67	130.32	42.87	33.47
	Heilongjiang	10.78	1.55	92.89	78.93	114.62	28.36	29.90	6.95	8.90	170.26	32.23	34.78
East	Shanghai	2.81	4.91	97.60	104.21	178.66	90.58	95.89	174.65	82.16	188.78	92.99	57.11
	Jiangsu	26.77	5.46	100.30	92.92	157.98	52.48	78.84	132.06	54.33	128.31	84.07	51.50
	Zhejiang	31.84	11.03	93.06	99.27	181.02	64.83	60.06	152.42	44.76	117.14	91.41	55.61
	Anhui	20.64	0.88	97.49	92.23	133.96	33.89	47.28	94.66	46.57	104.21	68.32	31.52
	Fujian	49.47	2.52	102.09	99.70	169.37	63.12	74.30	145.94	24.21	148.71	103.48	38.61
	Jiangxi	22.85	1.16	95.68	90.95	143.96	37.33	41.47	78.50	86.14	88.42	85.26	40.04
	Shandong	46.63	6.15	95.09	92.09	120.40	52.71	46.32	82.03	30.90	96.60	73.97	68.43
South-Central	Henan	27.70	1.61	99.14	87.18	127.19	35.00	32.04	100.62	40.22	84.23	53.57	46.41
	Hubei	17.83	1.72	96.21	96.00	135.79	47.31	49.51	107.33	68.21	111.09	78.14	33.22
	Hunan	16.08	2.05	96.74	90.85	129.60	39.44	37.75	85.96	83.12	76.42	70.66	36.79
	Guangdong	72.24	12.90	97.76	94.09	160.07	74.45	64.91	174.79	14.88	133.80	108.22	47.47
	Guangxi	57.49	2.37	88.43	84.60	138.42	46.90	48.17	82.67	32.94	133.03	94.57	49.19
	Hainan	54.11	5.01	61.81	71.63	124.22	33.45	24.70	55.54	0.15	140.44	75.27	32.84
Southwest	Chongqing	3.33	1.67	103.67	105.00	164.33	70.00	81.67	174.33	50.00	81.67	102.67	53.33
	Sichuan	8.04	2.97	100.14	94.36	141.60	38.06	47.53	86.66	49.07	115.79	91.10	44.53
	Guizhou	7.46	2.07	98.51	88.00	125.23	29.81	39.30	9.73	65.31	99.39	58.27	59.93
	Yunnan	28.92	8.67	94.30	81.07	125.89	32.36	42.33	1.16	38.11	146.67	73.57	65.04
	Xizang (Tibet)	18.50	4.33	75.00	68.49	104.66	9.54	15.02	3.41	30.26	10.86	10.69	23.81
Northwest	Shaanxi	15.89	0.75	98.13	86.50	130.14	34.88	40.00	80.37	26.62	107.98	66.26	38.82
	Gansu	13.95	0.67	98.92	82.84	114.96	28.68	33.00	3.85	13.52	91.48	58.90	43.40
	Qinghai	7.07	2.35	99.01	84.40	113.27	30.56	42.88	0.82	23.38	60.24	48.44	34.80
	Ningxia	19.44	0.93	92.95	81.22	109.75	26.41	33.07	5.86	11.05	135.63	64.74	36.10
	Xinjiang	16.59	2.08	92.97	82.65	107.97	28.70	24.15	8.62	8.79	83.37	65.73	36.42
National Average		25.30	4.32	96.77	91.75	137.43	47.20	50.61	87.79	37.78	113.19	75.13	44.61

Source: NBS, China Statistical Yearbook, 2007.

Table 5B.14. Rural Household Survey Data^[1]

	1978	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
Households Surveyed	6,095	15,914	66,642	66,836	66,912	67,186	66,906	66,960	67,410	67,490	67,570
People per Household	5.74	5.54	5.12	5.07	5.01	4.94	4.86	4.8	4.71	4.67	4.59
Annual Average Income ^[2] (yuan/yr)	767	1,060	2,036	2,148	2,317	2,692	2,923	3,294	3,337	3,661	4,230
Per Capita Annual Living Expenditures for Consumption (yuan)	112.90	162.20	317.42	345.71	398.29	476.66	535.37	584.63	619.79	659.01	769.65
of which water, electricity, fuels & others (yuan)	8.38	9.66	18.60	18.57	19.29	21.69	23.51	24.37			87.08
Per Capita Living Space in Rural Area (m ²)	8.1	9.4	14.7	15.3	16.0	16.6	17.2	17.8	18.5	18.9	20.7
Appliances per 100 Households:											
Fans			9.66	13.63	20.00	28.00	33.96	41.36	53.30	60.08	71.79
B & W TV Sets ^[3]		0.40	10.94	17.00	22.00	29.00	33.91	39.72	47.53	52.44	58.30
Color TV Sets			0.80	1.52	2.00	3.00	3.63	4.72	6.44	8.08	10.86
Clothes Washers			1.90	3.22	5.00	7.00	8.15	9.12	10.99	12.23	13.82
Refrigerators			0.06	0.20	0.30	0.60	0.89	1.22	1.64	2.17	3.05

	1994	1995	1996	1997	1998	1997	1998	1999	2000	2001	2002 ^[4]
Households Surveyed	67,420	67,340	67,610	67,680	68,300	67,680	68,300	67,430	68,116	68,190	68,419
People per Household	4.54	4.48	4.42	4.35	4.3	4.35	4.3	4.25	4.2	4.15	4.13
Annual Average Income ^[2] (yuan/yr)	1,789.38	2,337.87	2,806.73	2,999.20	3,018.48	2,999.20	3,018.48	2,987.44	3,146	3,307	3,448.62
Per Capita Annual Living Expenditures for Consumption (yuan)	1,016.81	1,310.36	1,572.08	1,617.15	1,590.33	1,617.15	1,590.33	2,390.37	2,652.42	2,779.96	2,923.6
of which water, electricity, fuels & others (yuan)											
Per Capita Living Space in Rural Area (m ²)	20.2	21.0	21.7	22.4	23.3	22.4	23.3	24.2	24.8	25.7	26.5
Appliances per 100 Households:											
Fans	80.91	88.94	100.46	105.93	111.59	105.93	111.59	116.07	122.62	129.42	134.26
B & W TV Sets	61.77	63.81	65.06	65.12	63.59	65.12	63.59	62.35	52.97	50.74	48.14
Color TV Sets	13.52	16.92	22.91	27.32	32.59	27.32	32.59	38.24	48.74	54.41	60.45
Clothes Washers	15.30	16.90	20.54	21.87	22.81	21.87	22.81	24.32	28.58	29.94	31.8
Refrigerators	4.00	5.50	7.27	8.49	9.12	8.49	9.12	10.64	12.31	13.59	14.83

	2003	2004	2005	2006
Households Surveyed	68,190	68,190	68,190	68,190
People per Household	4.1	4.08	4.07	4.05
Annual Average Income ^[2] (yuan/yr)	3,582.42	4,039.60	4,631.21	5,025.08
Per Capita Annual Living Expenditures for Consumption (yuan)	3,024.99	3,430.10	4,126.91	4,485.44
of which water, electricity, fuels & others (yuan)				
Per Capita Living Space in Rural Area (m ²)	27.24	27.90	29.68	30.65
Appliances per 100 Households:				
Fans	138.08	141.91	146.35	152.08
B & W TV Sets	42.80	37.92	21.77	17.45
Color TV Sets	67.80	75.09	84.08	89.43
Clothes Washers	34.27	37.32	40.20	42.98
Refrigerators	15.98	17.75	20.10	22.48

[1] Surveys were conducted in a wide variety of areas. Data may not be statistically representative of all rural areas in China

[2] Current yuan per household

[3] 1990 figure is total of color and black and white television sets.

[4] Data of households surveyed in 2002 is different from the number in NBS' China Statistical Yearbook (2006), which is 68190.

Source: NBS, China Statistical Yearbook, various years; Figures for living area per capita for rural residents was obtained from rural household sample surveys.

Figure 5B.7. Rural Appliance Ownership, 1980-2006

Table 5B.15. Stock of Agricultural Machinery (GW)

Year	Large & Medium Tractors	Small & Walking Tractors	Boat Tractors ^[2]	Rice Trans-planters	Drainage & Irrigation Motors				Trucks	Motorized Fishing Boats	Motor-Driven Sprayers	Balance/Other ^[3]	Total
					diesel	electric	other	Subtotal					
1980 ^[1]	24.02	16.38	0.58	0.21	27.57	20.35	7.74	55.66	9.09	2.62	0.54	40.40	149.50
1981 ^[1]	25.59	17.85	0.62	0.16	27.12	20.81	7.99	55.92	11.75	2.97	0.59	43.51	158.97
1982 ^[1]	26.49	20.16	0.55	0.12	26.92	29.75	0.52	57.19	14.08	3.27	0.62	45.95	168.45
1983 ^[1]	27.46	24.25	0.48	0.07	27.41	30.66	0.46	58.53	19.11	3.31	0.67	48.84	182.73
1984 ^[1]	27.57	29.27	0.39	0.05	26.54	31.59	0.44	58.57	24.97	3.40	0.64	52.82	197.68
1985 ^[1]	27.82	34.14	0.32	0.03	26.03	31.95	0.36	58.35	31.18	3.72	0.57	55.90	212.03
1986	28.07	40.03	0.30	0.03	26.90	32.91	0.63	60.44	35.81	4.24	0.53	60.05	229.50
1987	28.76	47.13	0.28	0.03	28.18	33.97	0.43	62.58	39.66	4.86	0.53	64.53	248.36
1988	28.96	53.19	0.29	0.04	29.98	35.17	0.53	65.68	43.25	5.45	0.60	68.29	265.75
1989	28.14	58.48	0.25	0.04	32.07	36.07	0.39	68.53	46.34	6.09	0.61	72.20	280.67
1990	27.46	62.31	0.26	0.05	33.49	37.49	0.32	71.29	46.21	6.96	0.75	71.79	287.08
1991	26.82	65.29			34.47				46.91	7.33	0.96	146.58	293.89
1992	26.30	67.20			34.42				48.52	7.86	1.09	152.12	303.08
1993	25.31	70.43			36.13				52.46	8.05	1.14	160.78	318.17
1994	24.63	73.99			37.31				57.19	8.30			380.03
1995	24.04	78.48			38.39				60.91	9.70			361.18
1996	24.15	83.85			39.85				64.23	8.60			385.46
1997	24.87	93.37			42.92				65.75	10.80			420.16
1998	25.87	100.32			44.99				67.81	11.70			452.07
1999	27.73	110.09			49.35				68.82	12.53			489.96
2000	31.61	116.64			52.33					13.38			525.74
2001	29.02	122.58			55.80					13.80			551.72
2002	30.73	126.95			56.68					13.81			579.30
2003	32.30	130.60			55.93					14.26			603.87
2004	37.13	138.55			58.04					13.84			640.28
2005	42.93	146.61			60.34					13.76			683.98

[1] Values in these rows (except for irrigation motor subtotals, boats, and totals, which are given in watts in the China Energy Statistical Yearbook) were calculated using a factor of 1 kW = 1.341 hp, derived from figures for the same year given in horsepower in the China Statistical Yearbook and figures given in watts in the China Energy Statistical Yearbooks.

[2] "Boat tractors" are used in rice cultivation.

[3] "Other" includes pumps, sprinkler machines, combine harvesters, motor-driven harvesters, motor-driven threshers, seed selecting machines, grain drying machines, rice and wheat mills, cotton-ginning mills, oil presses, fodder grinders and forage grass harvesters. This column also indicates discrepancies in reported values for categories and totals.

Sources: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 5B.16. Rural Equipment and Capacity

1. Rural Equipment

Year	Total Power of Rural Equipment (GW)	Large-Medium Tractors (Units)	Small Tractors (1000 Units)	Farm Tools of Large-Medium Tractors (1000 Units)	Combines Harvesters (Units)	Fishing Motorboats (Units)	(GW)
1957	1.21	14,674			1,789	1,485	0.076
1962	7.57	54,938	1	192	5,906	5,657	0.333
1965	10.99	72,599	4	258	6,704	7,789	0.471
1970	21.65	125,498	78	346	8,002	14,200	0.730
1975	74.79	344,518	599	908	12,551	33,701	1.571
1978	117.50	557,358	1,373	1,192	18,987	47,176	2.136
1979	133.79	666,823	1,671	1,313	23,026	52,225	2.301
1980	147.46	744,865	1,874	1,369	27,045	61,022	2.585
1981	156.80	792,032	2,037	1,390	31,268	73,586	2.932
1982	166.14	812,447	2,287	1,374	33,904	95,692	3.223
1983	180.22	840,776	2,750	1,308	35,728	120,167	3.268
1984	194.97	853,914	3,298	1,235	35,861	143,430	3.352
1985	209.13	852,357	3,824	1,128	34,573	172,582	3.672
1986	229.50	866,463	4,526	1006	30,945	205,923	4.240
1987	248.36	880,952	5,300	1035	33,802	238,628	4.860
1988	265.75	870,187	5,958	971	35,004	265,126	5.450
1989	280.67	848,220	6,543	991	36,582	289,205	6.090
1990	287.08	813,521	6,981	974	38,719	320,927	6.960
1991	293.89	784,466	7,304	991	43,996	329,843	7.334
1992	303.08	758,904	7,507	1044	51,075	335,875	7.861
1993	318.17	721,216	7,883	1001	56,304	334,656	8.044
1994	338.03	693,154	8,237	980	63,918	351,327	8.311
1995	361.18	671,846	8,646	991	75,351	376,813	9.657
1996	385.47	670,848	9,189	1,050	96,378	358,869	8.641
1997	420.16	689,051	10,485	1,157	141,312	400,010	10.840
1998	452.08	725,215	11,221	1,204	182,629	411,322	11.744
1999	489.96	784,216	12,003	1,320	226,036	417,379	12.531
2000	525.74	974,547	12,644	1,400	262,578	459,888	13.387
2001	551.72	829,900	13,051	1,469	282,871	480,125	13.797
2002	579.30	911,670	13,394	1,579	310,147	485,693	13.812
2003	603.87	980,560	13,777	1,698	365,041	478,123	14.259
2004	640.28	1,118,636	14,549	1,887	410,520	486,878	13.842
2005	683.98	1,395,981	15,269	2,262	480,378	439,604	13.761

N.B. From 2000, data of large-medium tractors, combines and fishing motorboats are revised due to the change of statistical standards.

Source: NBS, China Rural Statistical Yearbook, 2006.

Table 5B.16. Rural Equipment and Capacity

2. Rural Equipment Capacity (GW)

Year	Total Power of Rural Equipment	Power of Diesel Engine	Power of Gasoline Engine	Power of Electric Engine	Other Mechanic Power	Power of Large-Medium Tractors	Power of Small Tractors	Power of Rural Irrigation & Drainage Electric Motors	Power of Rural Irrigation & Drainage Diesel Motors	Power of Combines Harvesters	Power of Fishing Motorboats	Power of Motorized Harvesters	Power of Rural Vehicles	Power of Rural Trucks
1985	209.13							57.551						
1990	287.08					27.46	62.31	37.49	33.49	1.91	6.96	0.098		46.21
1991														
1992	303.08					26.30	66.04	38.68	34.42	2.29	7.86	0.116		48.52
1993	318.17					25.33	70.43	39.01	36.13	2.37	8.04	0.171		52.46
1994	338.03					24.64	74.00	40.99	37.31	2.54	8.31	0.225		57.19
1995	361.18	241.76	34.34	84.44	0.64	24.04	78.48	40.38	38.39	2.43	9.66	0.252	16.32	60.91
1996	385.47					24.15	83.85	44.05	39.85	3.02	8.64	0.240		64.23
1997	420.16					24.87	93.37	55.37	42.92	3.71	10.81	0.335		65.75
1998	452.08	321.21	34.50	95.71	0.66	25.88	100.32	47.27	44.99	4.68	11.74	0.365	32.47	67.81
1999	489.96	356.91	33.39	98.79	0.87	27.73	110.09	48.44	49.35	5.71	12.53	0.409	37.57	68.82
2000	525.74	391.40	31.29	101.27	0.90	31.61	116.64	49.84	53.33	6.61	13.39	0.437	84.32	67.63
2001	551.72	416.89	29.49	104.40	0.94	34.10	122.58	51.16	55.80	7.45	13.80	0.642	99.85	
2002	579.30	443.22	27.86	107.45	0.75	30.73	126.95	53.02	56.68	8.56	13.81			
2003	603.87	466.11	27.35	109.52	0.89	32.30	130.60	53.36	55.93	10.86	14.26			
2004	640.28	499.77	26.38	112.97	1.17	37.13	138.55	54.60	58.04	12.66	13.84			
2005	683.98	538.89	26.04	117.94	1.11	42.94	146.61	56.36	60.34	15.50	13.76			

N.B. From 2002, large-medium tractors do not include deformation tractors.

N.B. From 2000, rural vehicles include rural tricycles.

Source: NBS, China Rural Statistical Yearbook, various years.

Table 5B.17. Output of Major Energy-Intensive Industrial Raw Materials (Mt)

Year	Paper & Paperboard	Pig Iron	Crude Steel	Rolled Steel Products	Cement	Plate Glass (M cases)	Soda Ash	Caustic Soda	Sulfuric Acid	Synthetic Ammonia	Ethylene
1980	5.35	38.02	37.12	27.16	79.86	24.66	1.61	1.92	7.64	14.97	0.49
1981	5.40	34.17	35.60	26.70	82.90	27.01	1.65	1.92	7.81	14.83	0.51
1982	5.89	35.51	37.16	29.02	95.20	31.54	1.74	2.07	8.18	15.46	0.56
1983	6.61	37.38	40.02	30.72	108.25	36.47	1.79	2.12	8.70	16.77	0.65
1984	7.56	40.01	43.47	33.72	123.02	41.90	1.88	2.22	8.17	18.37	0.65
1985	9.11	43.84	46.79	36.93	145.95	49.42	2.01	2.35	6.76	17.18	0.65
1986	9.99	50.64	52.20	40.58	166.06	52.02	2.15	2.52	7.63	16.76	0.69
1987	11.41	55.03	56.28	43.86	186.25	58.03	2.36	2.74	9.83	19.41	0.94
1988	12.70	57.04	59.43	46.89	210.14	72.93	2.61	3.01	11.11	19.86	1.23
1989	13.33	58.20	61.59	48.59	210.29	84.42	3.04	3.21	11.53	20.68	1.40
1990	13.72	62.38	66.35	51.53	209.71	80.67	3.80	3.35	11.97	21.29	1.57
1991	14.79	67.65	71.00	56.38	252.61	87.12	3.94	3.54	13.33	22.02	1.76
1992	17.25	75.89	80.94	66.97	308.22	93.59	4.55	3.80	14.09	22.98	2.00
1993	19.14	87.39	89.56	77.16	367.88	110.86	5.35	3.95	13.37	21.93	2.03
1994	17.33	96.42	92.61	84.28	421.18	119.25	5.81	4.30	15.37	24.17	2.19
1995	28.12	105.29	95.35	89.80	475.61	157.32	5.98	5.32	18.11	27.66	2.40
1996	26.38	107.23	101.24	93.38	491.19	160.69	6.69	5.74	18.84	30.94	3.04
1997	27.33	115.11	108.94	99.79	511.74	166.31	7.26	5.75	20.37	30.00	3.59
1998	21.26	118.63	115.59	107.38	536.38	171.94	7.44	5.39	27.71	31.34	3.79
1999	21.59	125.39	124.26	121.10	573.00	174.20	7.66	5.80	23.56	34.32	4.35
2000	24.87	131.01	128.50	131.46	597.00	183.52	8.34	6.68	24.27	33.64	4.70
2001	37.77	155.54	151.63	160.68	661.04	209.64	9.14	7.88	26.96	34.27	4.81
2002	46.67	170.85	182.37	192.52	725.00	234.46	10.33	8.78	30.50	36.75	5.43
2003	48.49	213.67	222.34	241.08	862.08	277.03	11.34	9.45	33.71	38.23	6.12
2004	48.63	251.85	272.80	297.23	970.00	300.58	13.02	10.60	39.94	42.22	6.27
2005	62.05	343.75	353.24	377.71	1,068.85	402.10	14.21	12.40	45.45	45.96	7.56
2006	68.63	412.45	419.15	468.93	1,236.76	465.75	15.60	15.12	50.33	49.37	9.41
Annual Average	11.47%	9.94%	10.02%	11.83%	11.29%	12.31%	9.26%	8.45%	8.12%	5.00%	10.45%

Source: NBS, China Statistical Yearbook, various years; NBS, Statistical Yearbook of China's Industrial Economy, various years.

Table 5B.18. Physical Energy Intensities of Selected Industrial Products^[1], 1980-2002

Product	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Energy^[2]																								
Raw coal production, raw coal use ^[3]	kg/t	39.10	41.90	41.20	41.30	44.40	41.10	39.40	40.30	39.50	40.70	40.00	38.60	37.60	38.20	36.50	36.50							
Raw coal production, raw coal use ^[3]	kWh/t	34.34	35.68	35.88	36.35	36.68	37.29	39.12	39.55	40.89	42.73	43.98	46.97	50.47	53.82	59.78	52.63	59.97	54.88	56.19				
Crude oil production, electricity use	kWh/t	38.84	39.82	42.96	45.08	47.24	51.58	59.39	64.50	73.27	78.75	87.97	102.62	107.50	114.60		135.47		143.06	143.92	141.69	137.61	136.06	141.14
Crude oil production, total energy use	kgce/t						143.04			141.54	144.86	148.94	132.80	133.63	140.00	139.07	144.89	144.00						
Oil refining, electricity use	kWh/t	39.44	39.77	39.49	34.59	40.69	41.86	42.29	41.73	44.34	45.60	49.33	50.25	50.67	52.43	61.29	59.64	60.53	34.60	68.21	66.74	59.71	62.85	62.82
Oil refining, fuel oil use	kg/t	29.21	26.13	22.57	19.24	18.59	18.73	19.71	20.02	20.53	20.36	20.95	19.86	19.58	20.73	29.60	21.01	18.44	17.51	16.70	14.61	11.58	10.10	9.05
Oil refining, total energy use	GJ/t												3.62	3.68	3.68		3.47	3.40	3.46	3.81	3.76	3.47	3.44	3.45
Iron and Steel																								
Steel, all enterprises, total energy use	GJ/t steel	59.79	56.66	55.86	53.84	52.26	51.18	49.97	49.06	48.27	47.95	47.22	46.93	46.13	45.28	44.52	44.43	40.80						
Steel, key enterprises, total energy use	GJ/t steel						37.96	41.62	41.36	35.32	35.55	35.20	35.35	34.76	34.12	33.68	33.88	33.20						
Steel, local "backbone" enterprises, total energy use	GJ/t steel						50.41	52.17	49.24	46.02	44.23	42.09	40.65	39.36	37.52	36.37	36.05							
Coke ratio (ironmaking)	kg coke/t iron	585	579	577	575	571	568	556	553	556	568	571	541	573	600	586	554		475	496	466	429	422	417
Iron smelting, key enterprises	GJ/t iron	15.56	15.50	15.43	15.45	15.27	15.07	14.98	14.60	14.74	14.80	14.92	14.92	14.57	14.54	14.54	14.63							
Steel making, basic oxygen furnace, key enterprises	GJ/t steel	1.76					1.14	1.03	0.94	0.82	0.79	0.82	0.70	0.67	0.67	0.67	0.59							
Steel making, open hearth furnace, key enterprises	GJ/t steel	5.86	5.92	5.72	5.45	5.10	4.57	4.19	3.99	3.78	3.66	3.61	3.61	3.37	3.28	3.34	3.25							
Steel making, electric arc furnace, key enterprises	GJ/t steel	10.93	11.11	10.49	9.94	9.61	9.53	9.17	8.82	8.85	8.82	8.68	8.76	9.00	9.14	9.17	9.53							
Electric arc furnaces, key enterprises	kWh/t steel	647	651	643	625	619	626	607	590	594	601	595	590	593	597		606	608	603	552	488	504	489	423
Electric arc/induction furnaces, metal casting	kWh/t steel	809.3	830.6	822.0	781.0	791.0	818.0	786.9	764.0	748.6	737.2	764.1	738.1	771.9	777.0	703.6	783.0							
Steel melting, blast cupola, metal casting	GJ coke/t steel	3.17	3.41	3.54	4.05	3.58	3.54	3.81	3.58	3.70	3.65	3.74	3.69	3.35	3.35	3.71	3.95							
Nonferrous Metals																								
Aluminum, 8 large plants, total energy use	GJ/t	336.48	336.48	331.20	323.29	307.46	303.36	315.08	304.82	332.38	340.88	337.94	328.86	323.58	325.05	323.58	322.70	318.89						
Alumina, total energy use	GJ/t	44.49	44.49	45.87	46.72	47.98	47.54	46.08	45.75	47.57	58.36	56.16	56.48	55.10	57.01		51.79	48.07	42.97	40.51	38.16	35.52	34.59	33.85
Electrolytic aluminum, total energy use	GJ/t	218.51	213.96	216.84	207.49	208.63	203.06	200.39	198.40	216.54	205.02	202.68	197.26	194.33	195.97	196.08	203.70	0.00						
Electrolytic aluminum, DC use	MWh/t	15.43	15.73	16.11	15.63	15.46	15.05	15.29	15.38	15.25	15.04	14.92	14.90	14.81	14.70									
Electrolytic aluminum, AC use	MWh/t	20.34				20.13	21.32	16.48	16.32	16.90	15.98	16.22	16.43	16.46	16.29	15.86	16.60	16.41						
Copper production, total energy use	tce/t	8.32	7.60	7.06	6.93	6.51	6.32	5.78	5.69	5.68	5.64		5.84	5.82	5.81	3.09	3.09	5.57						
Copper smelting, total energy use	tce/t	2.03	1.83	1.65	1.68	1.57	1.74	2.01	1.78	1.76	1.76	1.71	1.75	1.67	1.67	1.59	1.18	1.38	1.35	1.05	1.15	1.28	1.08	1.02
Lead production, total energy use	tce/t	2.05	1.70	1.84	1.30	1.60	1.97	1.98	1.87	1.83	1.84	1.86												
Lead smelting, total energy use	tce/t	0.83	0.70	0.70	0.70	0.68	0.76	0.83	0.72	0.77	0.77	0.83					0.73		0.69	0.71		0.72	0.69	0.61
Zinc production, total energy use	tce/t	4.17	3.65	3.76	3.63	3.19	3.83	3.37	3.87	3.67	3.71	3.78												
Zinc smelting, total energy use	tce/t	2.69	2.78	2.62	2.61	2.53	2.49	2.72	2.72	2.61	2.63	2.74												
Zinc, electrolytic, total energy use	tce/t																		2.31	2.18	2.25	2.31	2.05	
Textiles																								
Cotton spinning, electricity use	MWh/t	1.827	1.888	1.862	1.894	1.943	1.983	1.914	1.946	1.969	20.420	2.129	2.125	2.126	2.178	2.249		2.302						
Textile printing, total energy consumption	kgce/100 m	38.07	39.85	40.06	41.60	41.41	44.43	45.69	43.44	42.51	42.59													
Viscose fiber (staple), energy use	tce/t	2.71	2.62	2.57	2.66	2.66	2.34	2.30	2.26	2.35	2.31	2.28					2.02		2.05	1.88	1.67	1.63	1.48	1.52
Viscose fiber (staple), electricity use	kWh/t	2,155	2,108	2,131	2,161	2,070	1,967	1,917	1,988	2,067	2,063								1,937	1,792	1,562	1,508	1,427	1,463
Viscose fiber (filament), energy use	tce/t	10.340	11.210	9.930	10.210	9.870	9.228	8.210	9.204	8.615	8.926	9,165					6,425		6,566	5,982	5,344	5,037	4,999	4,834
Viscose fiber (filament), electricity use	kWh/t	9,672	10,068	10,085	9,744	9,557	9,205	9,514	10,275	9,865	10,615	10,439							8,979	8,425	7,669	7,573	7,411	7,783

[1] Unless otherwise noted, data refer to key state-owned enterprises

[2] Indicators for the power sector are in Chapter 4.

[3] Coal production intensity figures include only centrally-run mines; local mines, including provincial mines, are excluded.

[4] Sinopec plants only. Chinese figures for ethylene energy intensity do not include feedstocks as other statistics do. Estimated feedstock needs are 43 GJ/t, and the range of current intensities, including feedstocks, for ethylene production in China is 73-90 GJ/t.

Source: SPC, 1991, 1993, 1997; NBS, China Energy Statistical Yearbook, various years; MMI, 1993; EB, China Iron and Steel Industry Yearbook, various years; NBS, Yearbook of China's Industrial Economy, various years; EB, Sinopec Yearbook, 1991; Energy of China, no. 9, 1993 and no. 2, 1994; EB, China Nonferrous Metals Industry Yearbook, 1994; China Energy Research Society, 1993; Energy Research Institute.

Table 5B.18. Physical Energy Intensities of Selected Industrial Products^[1], 1980-2002 (continued)

Product	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Building Materials																					
Cement clinker, fuel use	GJ/t	6.05	6.08	6.09	6.04	6.03	5.89	5.81	5.67	5.60	5.52	5.43	5.44	5.57	5.17	5.14	5.13		4.95	4.71	4.58
Cement, electricity use	kWh/t	96.65	98.62	100.00	100.90	102.39	103.93	105.59	106.23	107.31	108.67	109.93	111.78	110.25	111.42	113.43	113.88	103.81	107.20	100.37	97.29
Cement, large & med. plants, total energy use	GJ/t	6.12	6.04	6.06	5.99	6.19	6.10	6.08	5.93	5.86	5.87	5.89	6.02	5.86	5.66	5.68	5.69	5.09	5.31	5.05	4.74
Cement, small plants, total energy use	GJ/t								5.87	5.73	5.62	5.64									
Cement, rural plants, total energy use	GJ/t	5.86					5.42	5.13	5.22	5.13	4.84	4.84	5.86	5.86	5.77	5.69	5.69	5.57			
Bricks, total energy use	GJ/million	375.75			345.86	322.41	279.91	290.46	273.46	231.49	259.10	249.14	228.91	199.89	256.76	197.26	203.70	219.24			
Bricks, rural plants, total energy use	GJ/million	439.65					363.44	360.51	354.65	337.07	334.13	331.20	307.76	307.76	284.31	272.58	272.58	269.65			
Flat glass, fuel use (per 50-kg case)	GJ/case	0.90	0.90	0.90	0.88	0.88	0.90	0.91	0.96	0.93	0.85	0.84	0.89	0.83		0.78	0.78	0.71	0.75	0.73	0.71
Flat glass, electricity use	kWh/case	3.63	3.80	3.71	3.49	3.65	5.29	5.43	5.26	6.97	7.06	7.39	7.81	6.82		6.73	6.95	7.48	8.15	9.47	9.40
Flat glass, total energy use	GJ/case	0.95	0.94	0.94	0.92	0.93	0.96	0.97	1.04	1.01	0.92	0.92	0.99	0.90	0.86	0.82	0.87	0.77			
Chemicals																					
Ethylene, large-scale equipment, electricity use	kWh/t						541	278	370	208	208	198									
Ethylene, large-scale equipment, total energy use ^[4]	GJ/t					56.69	52.42		51.17	51.92	51.29	46.94									
Ethylene, use of feedstock oil for cracking	t/t						4.15	3.88	3.97	3.73	3.63	3.60									
Polypropylene, total energy use ^[4]	GJ/t					26.21	25.88	21.82	18.97	19.81	17.71	17.67									
Ammonia, large plants, total energy use	GJ/t	41.94	42.15	41.56	41.06	40.36	40.10	41.15	41.85	41.59	40.13	39.36	40.15	40.13	38.31	39.54	37.63	37.87			
large plants, natural gas use	m ³ /t						1,043	1,049	1,030	1,013	1,066	1,053	1,074	1,059	1,091	1,047	1,051	1,045	1,050	1,061	933
Ammonia, medium plants, total energy use	GJ/t	71.49	68.88	68.70	68.44	66.89	66.53	65.51	65.01	64.83	64.28	63.78	63.19	63.19	63.10	64.31	62.69	60.44			
medium plants, coke & coal use	GJ/t	38.87	38.72	38.51	38.13	37.55	37.60	36.99	39.45	38.02	34.97	36.20	38.02	37.78	38.19	39.54	38.34	37.93			
Ammonia, small plants, total energy use	GJ/t	88.55	86.08	80.60	75.06	70.40	69.11	68.20	71.34	70.84	68.61	66.33	63.37	61.40	61.26	61.35	59.88	59.50			
Ammonia, electricity use	MWh/t	1.44	1.45	1.43	1.41	1.35	1.39	1.42	1.26	1.42	1.38	1.39	1.36	1.33	1.32	1.34	1.47	1.36			
Caustic soda, total energy use	GJ/t		50.06	50.33	49.48		46.34	46.22	44.11	45.14	44.14	44.17	48.07	44.84	47.39	47.10	45.87	47.13			
Caustic soda, electrolytic/membrane, DC use	MWh/t	2.45	2.47	2.45	2.40	2.39	2.36	2.36	2.34	2.35	2.34	2.41	2.43	2.41	2.41	2.44	2.39		2.40	2.37	2.36
Caustic soda, electrolytic/mercury, DC use	MWh/t	3.08	3.27	3.20	3.18	3.21	3.31	3.26	3.24	3.22	3.29	3.45	3.35	3.37	3.30	3.25	3.37	3.34	3.31	3.34	
Ammonium hydroxide (ammonia ash)	GJ/t	16.74	17.29	16.12	16.71	16.71	17.00	16.03	17.59	15.67	15.79	16.41	17.72	16.63	15.78	15.22	17.79				
Sodium hydroxide (soda ash)	GJ/t	11.31	13.19	12.60	9.09	6.57	11.14	12.13	11.14	10.31	11.37	11.34	10.98	10.62	7.71	9.57	10.05				
Calcium carbide, electricity use	MWh/t	3.53	3.56	3.52	3.48	3.45	3.47	3.46	3.44	3.45	3.50	3.43	3.42	3.49	3.46	3.52	3.53	3.52			
Calcium carbide, total energy use	GJ/t	75.33	75.03	74.45	74.15	73.57	73.28		70.93	65.95	60.26	64.83	56.39	57.48	57.30	57.98	63.78	60.00			
Sulfuric acid, electricity use	kWh/t	89.70	92.00	88.00	91.00	97.00	88.00	97.00	100.00	102.80	98.90	105.00	100.20	112.00	101.75	99.44	101.00		115.12	114.07	107.72
Carbon black, total energy use	GJ/t	102.59					100.59	120.85	99.95	99.65	106.60	102.44	107.69	106.73	108.25						
Yellow phosphorous, total energy use	GJ/t	258.81	262.32	243.86	250.01	231.84	257.93	257.63	257.93	255.00	217.77	251.57	248.15	245.38	223.43						
Light Industry																					
Sugar refining (cane), total energy consumption	tce/100 t cane	7.90	7.80	7.80	7.80	7.60	7.30	7.20	6.90	6.90	7.02										
Sugar refining (beets), total energy consumption	tce/100 t beets	9.30	9.10	3.90	9.60	9.10	9.20	9.20	8.80	9.60	9.47										
Wood pulp, electricity use	MWh/t	1.51	1.52	1.43	1.47	1.47	1.52	1.55	1.54	1.59	1.56	1.57									
Wood pulp, total energy use	GJ/t								20.81	18.76	18.17	19.93									
Paper and paperboard, total energy use	GJ/t								27.26	29.02	26.97	25.50	46.60	47.19	47.48	46.60	46.60	46.02			
Paper, rural paper mills	GJ/t	35.17					32.24	31.36	30.78	30.78	30.78	244.15	26.38	26.38	25.21	24.03	24.03	23.45			

[1] Unless otherwise noted, data refer to key state-owned enterprises

[2] Indicators for the power sector are in Chapter 4.

[3] Coal production intensity figures include only centrally-run mines; local mines, including provincial mines, are excluded.

[4] Sinopec plants only. Chinese figures for ethylene energy intensity do not include feedstocks as other statistics do. Estimated feedstock needs are 43 GJ/t, and the range of current intensities, including feedstocks, for ethylene production in China is 73-90 GJ/t.

Source: SPC, 1991, 1993, 1997; NBS, China Energy Statistical Yearbook, various years; MMI, 1993; EB, China Iron and Steel Industry Yearbook, various years; NBS, Yearbook of China's Industrial Economy, various years; EB, Sinopec Yearbook, 1991; Energy of China, no. 9, 1993 and no. 2, 1994; EB, China Nonferrous Metals Industry Yearbook, 1994; China Energy Research Society, 1993; Energy Research Institute.

Table 5B.19. Major Products Energy Intensities, 2002

1. Energy intensities of major products

Products	Unit	Year 2000
Coal energy intensities in thermal electricity for electricity supply	g coal equivalent/kWh	392
Comprehensive energy intensities of Steel per ton	kg coal equivalent/ton	906
Comparative energy intensities of Steel per ton	kg coal equivalent/ton	784
Comprehensive energy intensities of ten nonferrous	ton coal equivalent/ton	4.809
Comprehensive energy intensities of Aluminum	ton coal equivalent/ton	9.923
Comprehensive energy intensities of Copper	ton coal equivalent/ton	4.707
Refinery unit energy factor intensities	kg oil equivalent/ton factor	14
Comprehensive energy intensities of ethylene	kg oil equivalent/ton	848
Comprehensive energy intensities of large scale ammonia	kg oil equivalent/ton	1372
Comprehensive energy intensities of caustic soda	kg oil equivalent/ton	1553
Comprehensive energy intensities of cement	kg oil equivalent/ton	181
Comprehensive energy intensities of plate glass	kg coal equivalent/cases	30
Comprehensive energy intensities of construction ceramics	kg coal equivalent/m ²	10.04
Comprehensive energy intensities of railway transportation	ton coal equivalent/million ton-km	10.41

Source: NDRC, 2004, China Energy Report, 2006

2. Energy intensities of major energy consuming equipment

Energy consuming Equipment	Unit	Year 2000
Coal-fired Industrial Boiler (Operation)	%	65
Medium-Small Motor (Design)	%	87
Fan (Design)	%	75
Pump (Design)	%	75-80
Air Compressor (Design)	%	75
Automobiles (for passengers) Average Oil Consumption	Liter/hundred km	9.5
Room Air Conditioner (Energy efficiency ratio)		2.4
Refrigerator (Energy efficiency index)	%	80
Home Gas Cooking Utilities (Thermal efficiency)	%	55
Home Gas Water Heater (Thermal efficiency)	%	80

Source: NDRC, 2004, China Energy Development Report 2007.

3. Unit energy intensities of major energy consuming products

Product	Unit	1980	1990	2000	2003	International Level
Coal consumption in thermal electricity (production)	g coal equivalent/kWh	413	392	363	355	303
Coal consumption in thermal electricity (supply)	g coal equivalent/kWh	448	427	392	381	316
Energy intensities of raw coal in electricity production	kWh/ton	34.3	44.0	30.9		30.0
Steel comparable energy intensities	kg coal equivalent/ton		997	789	729	646
Copper smelting comprehensive energy intensities	kg coal equivalent/ton	2028	1705	1352		820
Aluminum ingots comprehensive energy intensities	kg coal equivalent/ton		6998	6427		≤5800
Refinery energy factor intensities	kg coal equivalent/ton		20.58	20.01		
Ethylene comprehensive energy intensities	kg coal equivalent/ton	2013	1580	1212	890	714
Ammonia comprehensive energy intensities (large scale natural gas)	kg coal equivalent/ton	1431	1343	1200	1200	970
Cement comprehensive energy intensities	kg coal equivalent/ton	219	201	181		126
Plate glass comprehensive energy intensities	kg coal equivalent/cases	32.3	34.8	25.0		14.0
Brick comprehensive energy intensities	ton coal equivalent/10 k bricks	1.5	1.4	1.0		

Source: China Conservation; Energy Policy Info, China Energy Research Society, China Energy Development Report 2007.

Table 5B. 20. Energy Efficiency of Major Appliances

1. Modeled Refrigerator Unit Energy Consumption Values (kWh/year)

Volume (liters)	Efficiency Level	Year of Implementation		
		1999	2003	2007
170	MEPS ^[1]	489	372	336
	Labeled ^[2]	367	242	218
220	MEPS	545	489	440
	Labeled	409	318	286
270	MEPS	608	545	491
	Labeled	456	354	319

[1] MEPS (Minimum Energy Performance Standards); indicates the average model that complies with the minimum standard.

[2] Labeled: indicates the average model that has achieved the energy efficiency specifications for labeling.

Source: Fridley et al, 2007.

2. Room Air Conditioner Energy Efficiency Ratio

Category	2000 MEPS ^[3]		2005 MEPS		2009 MEPS ^[4]	
	Rated Cooling Capacity (CC) (Watts)	Energy Efficiency Ratio (EER) (W/W)	Rated Cooling Capacity (CC) (Watts)	Energy Efficiency Ratio (EER) (W/W)	Rated Cooling Capacity (CC) (Watts)	Energy Efficiency Ratio (EER) (W/W)
Single-package	CC≤4,500	2.2	CC≤14,000	2.3	CC≤14,000	2.9
	CC>4,500	-				
Split Unit	CC≤2,500	2.5	CC≤4,500 4,500<CC≤7,100 7,100<CC≤14,000	2.6 2.5 2.4	CC≤4,500 4,500<CC≤7,100 7,100<CC≤14,000	3.2 3.1 3.0
	2,500<CC≤4,500	2.5				
	4,500<CC≤7,100	2.4				
	CC>7,100	2.3				

[3] MEPS: Minimum Energy Performance Standards

[4] On Jan 1, 2009 the 2009 MEPS is going to effect.

Source: Fridley et al, 2007.

3. Modeled Room Air Conditioners Unit Energy Consumption Values (kWh/year)

	Efficiency Level	Year of Implementation		
		2000	2005	2009
Room AC	MEPS ^[1]	395	372	302
	Labeled ^[2]	358	302	285

[1] MEPS (Minimum Energy Performance Standards); indicates the average model that complies with the minimum standard.

[2] Labeled: indicates the average model that has achieved the energy efficiency specifications for labeling.

Source: Fridley et al, 2007.

4. Television MEPS and Energy Efficiency Criteria

MEPS	2006		2009	
	Energy Efficiency Index	Standby Power	Energy Efficiency Index	Standby Power
CRT	1.5	9W	1.1	5W
Plasma, LCD, rear projection	n/a	9W	n/a	5W
Energy Efficiency Labeling Criteria				
CRT	1.1	3W	n/a	n/a
Plasma, LCD, rear projection	n/a	3W	n/a	n/a

Source: Fridley et al, 2007.

5. Modeled Television Unit Energy Consumption Values (kWh/year)

TV Type ^[5]	Efficiency Level	Year of Observation/Implementation		
		2000	2006	2009 ^[4]
CRT	MEPS ^[1]	214	208	137
	Labeled ^[2]	142	143	98
Flat	MEPS	345	345	345
	Labeled	333	333	333

[1] MEPS (Minimum Energy Performance Standards); indicates the average model that complies with the minimum standard.

[2] Labeled: indicates the average model that has achieved the energy efficiency specifications for labeling.

[4] On Jan 1, 2009 the 2009 MEPS is going to effect.

[5] Assumed average lifetime of all types of TV is ten years.

Source: Fridley et al, 2007.

6. Clothes Washing Machine MEPS and Energy Efficiency Criteria

Washing Machine Type	Efficiency Level	Unit Energy Consumption (kWh/cycle/kg)	Unit Water Consumption (liters/cycle/kg)
Vertical/Impeller	MEPS	≤0.032	≤36
	Energy Efficiency	≤0.017	≤24
Horizontal/Drum	MEPS	≤0.35	≤20
	Energy Efficiency	≤0.23	≤14

Source: Fridley et al, 2007.

7. Modeled Clothes Washer Unit Energy Consumption Values (kWh/year)

Clothes Washer Type ^[5]	Efficiency Level	Year of Observation/Implementation	
		2000	2004
Vertical	MEPS ^[1]	38	42
	Labeled ^[2]	16	22
Horizontal	MEPS	540	455
	Labeled	182	299

[1] MEPS (Minimum Energy Performance Standards); indicates the average model that complies with the minimum standard.

[2] Labeled; indicates the average model that has achieved the energy efficiency specifications for labeling.

[5] Assumed average lifetime of all types of clothes washer is ten years.

Source: Fridley et al, 2007.

8. Computer and Printer Energy Efficiency Specifications

Product	Standby Power Consumption
Computers	≤3W
Printers	≤3W

Source: Fridley et al, 2007.

9. Modeled Computer and Printer Unit Energy Consumption and Market Share Values

Product ^[5]	Efficiency Level	Unit Energy (kWh/year)
Computers	Ordinary (2002 average)	78
	Efficient	75
Printers	Ordinary (2002 average)	102
	Efficient	88

[5] Assumed average lifetime of all modeled computers and Printers is five years.

Source: Fridley et al, 2007.

10. DVD/VCD Energy Efficiency Specifications

Product	Standby Power Consumption
DVD	≤3W
VCD	≤3W

Source: Fridley et al, 2007.

11. Modeled DVD & VCD Player Unit Energy Consumption

Appliance ^[5]	Efficiency Level	Unit Energy (kWh/year)
DVD/VCD Players	Ordinary (2002 average)	58
	Efficient	51

Source: Fridley et al, 2007.

Table 5B.21. Energy Efficiency by Subsectors

Unit: percentage (%)

Year	Intermediate	Terminal Energy Efficiency					Energy Efficiency
	Processes	Subtotal	Agriculture	Industry	Transportation	Commercial and Residential	(1*2)
1980	74.0	34.4	27.7	38.7	21.2	29.1	25.5
1989	72.4	38.7	28.0	40.5	25.4	42.5	28.0
1997	68.8	45.3	30.5	46.3	28.9	54.8	31.2
2000	67.8	49.2	32.0	49.6	28.1	66.2	33.4

Source: Energy Policy Studies, China Energy Research Society. (from China Energy Development Report 2007)

Figure 5B.8.Terminal Energy Efficiency by Subsector

Source: Energy Policy Studies, China Energy Research Society. (from China Energy Development Report 2007)

Table 5C.1. Motor Vehicle Fuel Economy

1(a). Truck and Bus Averages^[1]

Trucks								
	Gasoline				Diesel			
	l/100 t-km	t-mpg	km	mpg	l/100 t-km	t-mpg	km	mpg
1970	9.40	25.19	32.40	7.31	6.30	37.59	24.90	9.51
1971	9.20	25.74	32.20	7.35	6.20	38.20	25.20	9.40
1972	9.10	26.02	33.00	7.18	6.10	38.82	26.30	9.00
1973	9.10	26.02	33.30	7.11	6.00	39.47	26.30	9.00
1974	9.30	25.46	34.20	6.92	6.30	37.59	26.50	8.94
1975	9.30	25.46	34.10	6.94	6.90	34.32	27.40	8.64
1976	9.00	26.31	34.10	6.94	5.80	40.83	28.40	8.34
1977	8.60	27.54	33.90	6.99	6.50	36.43	22.60	10.48
1978	8.50	27.86	33.70	7.03	6.00	39.47	26.70	8.87
1979	8.70	27.22	33.40	7.09	6.10	38.82	27.10	8.74
1980	8.70	27.22	33.40	7.09	6.20	38.20	27.80	8.52
1981	8.50	27.86	34.00	6.97	6.00	39.47	28.40	8.34
1982	8.20	28.88	33.80	7.01	5.90	40.14	28.90	8.19
1983	8.00	29.60	34.60	6.84	5.80	40.83	29.60	8.00
1984	7.90	29.98	35.30	6.71	5.70	41.55	31.00	7.64
1985	7.70	30.76	36.00	6.58	5.80	40.83	32.70	7.24
1986	7.60	31.16	36.40	6.51	5.10	46.43	34.00	6.97
1987	7.60	31.16	37.30	6.35	5.10	46.43	34.80	6.81
1988	7.20	32.89	37.30	6.35	4.80	49.34	35.40	6.69
1989	7.10	33.35			4.70	50.39		
1990	7.10	33.35			4.80	49.34		

Buses								
	Gasoline				Diesel			
	l/100 t-km	t-mpg	km	mpg	l/100 t-km	t-mpg	km	mpg
1970			28.30	8.37			24.60	9.63
1971			28.00	8.46			24.70	9.59
1972			28.50	8.31			21.00	11.28
1973			28.70	8.25			22.50	10.53
1974			29.70	7.97			25.00	9.47
1975			29.90	7.92			24.80	9.55
1976			30.40	7.79			25.80	9.18
1977			29.70	7.97			26.70	8.87
1978			28.60	8.28			26.80	8.84
1979			28.30	8.37			25.10	9.43
1980			28.50	8.31			29.10	8.14
1981			23.60	10.03			24.40	9.71
1982			29.00	8.17			25.70	9.21
1983			29.20	8.11			26.60	8.90
1984			29.20	8.11			24.70	9.59
1985	8.00	29.60	30.00	7.89	6.10	38.82	26.90	8.80
1986	8.10	29.24	29.90	7.92	6.40	37.00	27.40	8.64
1987	8.20	28.88	30.30	7.82	6.20	38.20	25.00	9.47
1988	8.20	28.88	30.90	7.66	6.40	37.00	25.20	9.40
1989	8.10	29.24			6.50	36.43		
1990	8.70	27.22			7.20	32.89		

[1] Includes only vehicles belonging to local, state-owned transportation enterprises.

Source: NBS, China Energy Statistical Yearbook, various years; SPC, 1993; Energy of China, no. 2, 1994; China Automotive Industry Corporation, *et al.*, 1999.

Table 5C.1. Motor Vehicle Fuel Economy (continued)

2. Road Transport (Freight)

Year	<i>Gasoline</i>		<i>Diesel</i>	
	liters/ 100 vehicle-km	liters/ 100 t-km	liters/ 100 vehicle-km	liters/ 100 t-km
1994	34.4	6.5	32.1	4.5
1995	33.5	6.3	35.0	4.4
1996	33.5	6.4	35.1	4.5
1997	31.6	6.1	32.4	4.6
1998	30.6	7.4	27.1	5.5

3. Road Transport (Passenger)

Year	<i>Gasoline</i>		<i>Diesel</i>	
	liters/ 100 vehicle-km	liters/ 100 person-km	liters/ 100 vehicle-km	liters/ 100 person-km
1994	26.4	9.0	22.9	7.9
1995	25.0	9.1	24.2	8.6
1996	25.0	10.1	22.1	9.3
1997	23.8	10.5	20.6	9.9
1998	24.0	10.8	21.6	9.8

Source: NBS, China Energy Statistical Yearbook, various years; SPC, 1993; Energy of China, no. 2, 1994; China Automotive Industry Corporation, *et al.*, 1999.

Table 5C.1. Motor Vehicle Fuel Economy (continued)

4. Motor Vehicle Fuel Economy by Vehicle, mid-1980s to early 1990s

Vehicle	Power	Compression	Max. Speed	Gasoline	Fuel Economy ^[1]		
	Capacity	(hp)	Ratio	(km/hr)	Type	liters/100 km	mpg
mid-1980s vintage vehicles							
Jiefang CA10B	4 t		6.00		66 (MON)	29.00	8.17
Jiefang CA15 ^[3]	5 t	115.00		80.00		26.50	8.94
Dongfeng EQ140	5 t	135.00	7.00	90.00	70 (MON)	26.50	8.94
Nanjing NJ130	2.5 t		6.20		66 (MON)	20.00	11.84
Beijing BJ130	2 t		7.20		70 (MON)	15.00	15.79
Yuejin NJ131 ^[3]	3 t	88.00		90.00	[diesel]	16.50	14.35
Huanghe JN 162	10 t	210.00		83.00	[diesel]	26.50	8.94
Beijing BJ212	[jeep]		7.20		70 (MON)	13.00	18.22
Shanghai SH760	[sedan]		7.70		80 (MON)	14.00	16.92
JT661 ^[3]	40 ^[2]	95.00		75.00		28.00	8.46
JT662 ^[3]	45 ^[2]	135.00		85.00		27.00	8.77
JT680 ^[3]	60 ^[2]	160.00		71.00	[diesel]	25.00	9.47
early 1990s vintage vehicles							
Jiefang CA141	5.00		7.40		90 (RON)	26.50	8.94
Dongfeng EQ140	6.00		7.40		90 (RON)	26.50	8.94
Nanjing NJ131	3.00		7.50		90 (RON)	17.00	13.93
Beijing BJ134	2.00		7.20		90 (RON)	13.50	17.54
Beijing BJ 313	[jeep]		8.20		90 (RON)	11.00	21.53
Shanghai Santar	[sedan]		8.50		90 (RON)	10.30	22.99

[1] These are design values for vehicle km. Actual fuel economy tends to be significantly higher, e.g., the Santana uses 12-13 l/100 km in urban driving, rather than the 10.3 l/100 km intended for urban settings.

[2] Number of passengers.

[3] 1985 figures.

Source: NBS, China Energy Statistical Yearbook, various years; SPC, 1993; Energy of China, no. 2, 1994.

Table 5C.2. Energy Efficiencies of Some Major Equipment Types, 1990

Equipment	Share of Total Energy Use	Remark	Efficiency	
			National Average	Advanced International
Industrial Boilers ^[1]	30% of Total Coal Use		65%	>80%
Fans and Pumps	30% of Total Electricity Use	Equipment	75%	>85%
			75%	>85%
		System	30-40%	>70%
Electric Motors ^[2]	60% of Industrial Sector Electricity Use	1.1 kW	75%	86%
		22 kW	92%	94%
		75 kW	93%	95%

[1] Industrial boiler figures represent operating efficiencies.

[2] Motor figures represent rated efficiencies. Chinese motor figures are for Y-series motors, international figures are averages for US high-efficiency motors.

Source: Wang, 1995.

Table 5C.3. Total Stock of Electricity-Consuming Equipment by Subsector

1. Capacity of Electrical Equipment (GW)

	1986	1987	1988	1989	1990	1992	1993	1994	1995	1996	1997	1998
Agriculture and Associated Sectors	43.91	47.72	51.29	54.33	56.64	63.26	64.30	66.90	67.34	68.48	69.60	72.85
Irrigation	20.01	23.02	24.62	25.86	25.78	29.81	29.28	29.11	31.08	31.13	31.50	31.88
Agricultural Sidelines						16.88	15.27	14.90	16.44	16.29	16.58	16.43
Agriculture	27.65	31.48	35.51	38.44	40.23	45.03	45.52	46.68	47.54	48.82	48.81	51.58
Forestry	0.41	0.43	0.43	0.48	0.56	0.82	0.76	0.81	1.09	0.89	0.96	0.96
Livestock	0.66	0.57	0.60	0.69	0.82	0.98	1.01	1.11	1.04	1.19	0.12	1.38
Fisheries	0.49	0.53	0.59	0.72	0.87	1.09	1.04	0.99	1.09	1.15	0.12	1.19
Water conservancy	10.29	9.47	9.17	8.91	9.22	9.78	9.94	10.03	9.82	9.83	10.82	10.84
Other	4.41	5.23	4.97	5.08	4.95	5.56	6.03	6.46	6.75	6.59	6.58	6.90
Total Industry ^[1]	145.67	160.48	173.47	191.88	221.31	247.83	266.54	272.01	287.17	300.90	308.13	320.46
Light Industry	42.30	45.99	49.53	55.75	57.53	65.29	69.32	74.86	77.79	83.69	87.16	89.68
Heavy Industry	98.83	109.34	118.40	130.25	157.98	175.46	188.60	197.14	209.38	217.21	220.98	230.78
Other ^[1]	4.54	5.14	5.54	5.88	5.80	7.08	8.63					
Rural Industry						26.34	28.83	33.63	35.71	38.81	38.18	43.38
Extraction:												
Coal	9.43	10.75	11.50	11.63	12.27	13.25	13.66	13.69	13.99	14.58	14.67	15.18
Petroleum & NG	3.89	4.10	4.51	5.40	5.62	6.73	6.95	7.21	7.61	7.52	8.05	8.21
Ferrous Metals	1.64	1.94	1.94	2.19	2.29	2.39	2.58	3.40	2.73	2.80	2.30	3.41
Nonferrous Metals	2.36	2.54	2.41	2.50	2.87	3.12	3.40	3.67	3.50	3.59	3.76	3.71
Construction Materials & Other Nonmetal	1.55	1.56	1.85	1.85	2.08	2.37	2.51	2.87	2.95	3.27	3.15	3.47
Salt	0.33	0.33	0.35	0.34	0.38	0.46	0.48	0.52	0.53	0.48	0.52	0.53
Other Mineral	0.08	0.12	0.11	0.11	0.12	0.12	0.19	0.18	0.17	0.18	0.23	0.33
Timber & Bamboo	0.35	0.36	0.36	0.38	0.39	0.48	0.46	0.46	0.49	0.55	0.54	0.59
Water Supply	2.20	2.30	2.57	2.91	3.22	3.77	4.09	4.56	4.71	5.13	5.64	6.00
Extraction Subtotal	21.83	24.01	25.59	27.31	29.23	32.69	34.32	36.57	36.68	38.11	38.85	41.44
Manufacturing:												
Food, Beverage & Tobacco	10.88	11.75	12.01	13.38	13.15	14.57	15.26	15.68	15.87	17.17	17.48	17.99
Spinning & Weaving	8.06	8.53	9.51	11.06	11.19	12.22	12.67	13.47	13.81	14.70	14.65	15.37
Paper & Paper Production	3.44	3.64	4.05	4.57	4.52	5.27	5.64	5.98	6.35	7.09	7.16	7.72
Electricity, Steam & Hot Water ^[2]	0.42	0.96	1.23	2.67	24.67	25.82	27.62	26.11	20.49	24.48	23.02	22.85
Petroleum Refining	1.90	2.11	2.35	1.97	2.21	2.79	2.74	2.84	2.94	3.23	3.92	4.40
Coking, Coal Gas & Coal Products	0.80	0.85	0.89	1.07	1.13	1.39	1.75	1.95	1.91	2.05	2.16	2.21
Chemicals	17.55	17.78	19.99	22.37	22.52	25.92	28.33	26.47	28.34	30.48	31.31	32.86
Pharmaceuticals	1.17	1.27	1.44	1.67	1.93	2.25	2.46	2.62	2.87	3.02	3.30	3.49
Synthetic Fibers	1.44	1.48	1.90	1.86	2.49	2.31	2.42	2.67	2.86	3.09	3.40	3.72
Rubber & Plastics	3.17	3.91	4.50	5.10	5.10	6.11	6.68	7.28	8.03	9.32	9.70	9.84
Construction Materials and Nonmetal												
Mineral Products	12.83	14.52	15.22	16.89	17.63	19.93	22.63	23.86	25.58	27.86	28.76	30.33
Ferrous Metals Smelting & Rolling	12.24	13.25	14.49	17.00	19.08	22.18	24.00	27.23	28.22	29.95	29.93	31.33
Nonferrous Metals Smelting & Rolling	4.97	5.85	6.46	7.53	8.31	9.40	10.06	12.39	12.74	13.65	14.33	14.94
Metal Products	8.37	8.62	8.87	9.18	9.03	10.06	10.49	11.19	11.84	12.55	12.74	13.12
Machinery	14.08	16.47	17.05	17.70	17.70	18.71	19.37	21.05	21.99	22.58	22.82	22.65
Transportation, Electrical & Electronic												
Equipment	7.24	8.25	8.97	9.67	10.63	11.80	12.27	12.87	13.78	14.89	16.15	16.82
Other Industrial	10.76	12.08	13.42	15.02	14.96	17.28	19.21	21.77	23.50	26.68	3.34	3.39
Manufacturing Subtotal ^[2]	119.30	131.33	142.35	158.71	186.26	208.02	223.59	235.43	250.49	262.79	28.45	29.39
Transportation and telecommunications	6.12	7.20	8.34	9.11	9.78	12.11	13.88	14.32	14.95	16.34	16.76	19.24
Transportation	5.50	6.49	7.58	8.37	8.88	10.90	12.48	12.50	13.07	13.91	14.16	16.17
Pipelines	0.55	0.65	0.67	0.71	0.71	0.70	0.74	0.70	0.72	0.89	0.83	0.88
Electric Railways	1.93	2.61	3.67	4.16	4.20	6.66	7.15	6.44	6.83	7.30	7.67	8.47
Posts and Telecommunications	0.62	0.69	0.75	0.74	0.90	1.21	1.40	1.81	1.89	2.43	2.61	3.07
Other Production Sectors ^[3]	18.46	20.36	23.97	24.55	26.62	33.17	38.41	30.08	32.75	36.23	39.80	44.87
Households	19.96	25.21	28.90	28.73	33.06	42.21	46.70	54.85	62.21	74.11	84.92	98.58
Urban	12.70	16.76	19.13	18.04	19.91	25.67	28.75	21.27	23.61	26.68	55.45	63.72
Rural	7.26	8.44	9.76	10.69	13.15	16.54	17.95	33.58	38.58	47.44	29.46	34.86
Total of All Sectors ^[2]	234.11	260.95	285.96	308.59	347.41	398.58	429.83	460.18	490.47	526.45	553.10	593.95

[1] Includes NBS categories of Geological Survey and Exploration, and Construction.

[2] Electricity sector capacity figures before 1990 do not include equipment such as substation transformers. If adjusted to the pre-1990 category definition, capacity would be 9.67 GW. Electricity use is divided almost evenly between in-plant use and line losses.

[3] Includes commercial food service, public utilities, real estate, public health, sports, education, broadcasting, research, government, and other organizations.

[4] Totals are slightly smaller than those reported by the National Bureau of Statistics.

[5] Actual consumption + maximum possible consumption.

N.B. Totals for some years do not equal the sum of sectoral subtotals.

Source: NBS, China Energy Statistical Yearbook, various years; Energy Research Institute.

Table 5C.3. Total Stock of Electricity-Consuming Equipment by Subsector

2. Electricity Use (TWh)

	Electricity Use ^[4]						
	1992	1993	1994	1995	1996	1997	1998
Agriculture and Associated Sectors	50.520	51.690	56.736	61.021	64.626	6.280	66.747
Irrigation	24.227	23.827	25.150	26.759	28.554	32.459	30.791
Agricultural Sidelines	13.015	13.272	13.196	14.281	14.844	14.727	15.066
Agriculture	34.803	35.682	38.421	41.218	44.071	47.158	45.739
Forestry	0.583	0.660	0.917	1.141	1.132	0.932	0.956
Livestock	1.125	1.174	1.283	1.354	1.615	1.580	1.568
Fisheries	0.933	0.974	1.108	1.390	1.454	1.742	1.579
Water conservancy	7.224	6.528	7.805	8.545	8.391	9.338	9.016
Other	5.852	6.672	7.203	7.373	7.973	7.529	7.889
Total Industry ^[1]	581.603	637.605	682.249	738.731	783.033	805.489	814.420
Light Industry	118.222	126.965	137.047	148.380	156.397	161.602	160.709
Heavy Industry	456.473	501.819	545.201	590.351	626.635	643.886	653.711
Other ^[1]	6.908	8.821					
Rural Industry	44.411	51.385	61.021	68.858	71.758	77.513	77.053
Extraction:							
Coal	33.901	34.662	36.024	38.029	39.463	38.935	37.757
Petroleum & NG	18.007	19.522	21.020	22.475	23.917	25.492	26.042
Ferrous Metals	6.857	7.401	7.639	7.923	7.923	7.840	7.694
Nonferrous Metals	7.561	7.691	8.341	9.029	9.707	9.642	9.600
Construction Materials & Other Nonmetal	3.822	4.387	4.705	5.138	5.347	5.690	5.922
Salt	0.982	1.002					
Other Mineral	0.185	0.206	0.287	0.363	0.424	0.431	0.554
Timber & Bamboo	1.173	1.141	1.355	1.257	1.293	1.310	1.332
Water Supply	9.513	10.472	11.374	11.935	12.471	13.038	13.257
Extraction Subtotal	82.001	86.484	91.750	97.182	101.585	103.469	103.195
Manufacturing:							
Food, Beverage & Tobacco	20.140	21.105	21.610	23.388	23.990	23.878	24.143
Spinning & Weaving	27.887	29.604	30.905	32.038	33.093	34.998	34.232
Paper & Paper Production	13.794	14.225	15.190	17.169	18.087	17.449	17.167
Electricity, Steam & Hot Water ^[2]	111.631	125.122	138.791	149.166	158.862	166.130	169.962
Petroleum Refining	8.161	8.826	9.280	10.290	11.283	12.616	13.194
Coking, Coal Gas & Coal Products	2.000	2.233	2.709	3.106	3.404	3.851	3.915
Chemicals	81.621	82.868	92.385	101.439	109.724	108.691	107.021
Pharmaceuticals	5.495	5.700	6.519	7.209	7.524	7.266	7.430
Synthetic Fibers	7.421	8.158	8.925	9.599	10.720	11.972	12.133
Rubber & Plastics	10.121	11.038	12.433	13.783	15.131	16.872	17.626
Construction Materials and Nonmetal							
Mineral Products	41.248	46.586	51.359	57.352	60.267	59.652	61.180
Ferrous Metals Smelting & Rolling	63.234	74.171	77.116	79.911	83.990	84.670	86.979
Nonferrous Metals Smelting & Rolling	29.817	33.708	36.814	41.556	44.895	49.885	52.468
Metal Products	11.259	13.171	14.242	15.715	16.543	18.341	17.747
Machinery	22.811	24.837	25.278	26.216	26.526	25.950	24.837
Transportation, Electrical & Electronic							
Equipment	14.319	16.682	17.870	18.965	20.283	21.860	23.647
Other Industrial	21.427	24.266	29.076	34.647	37.122	37.939	37.544
Manufacturing Subtotal ^[2]	492.386	542.300	590.499	641.548	681.448	702.020	711.225
Transportation and telecommunications	13.295	15.127	16.754	18.170	19.611	20.680	22.037
Transportation	11.710	13.154	14.195	14.905	15.810	16.208	16.825
Pipelines	1.785	1.789	1.897	1.793	2.006	1.766	1.547
Electric Railways	5.517	6.361	6.837	7.143	7.398	7.981	9.652
Posts and Telecommunications	1.585	1.973	2.559	3.175	3.800	4.472	5.212
Other Production Sectors ^[3]	36.767	42.756	34.497	37.768	41.620	45.456	50.400
Households	63.276	72.929	87.481	100.458	113.304	125.339	138.755
Urban	35.866	31.263	50.000	57.445	66.161	73.805	80.077
Rural	27.410	41.666	37.000	43.013	47.143	51.534	58.678
Total of All Sectors ^[2]	745.461	820.107	904.649	986.770	1,057.030	1,103.910	1,134.730

[1] Includes NBS categories of Geological Survey and Exploration, and Construction.

[2] Electricity sector capacity figures before 1990 do not include equipment such as substation transformers. If adjusted to the pre-1990 category definition, capacity would be 9.67 GW. Electricity use is divided almost evenly between in-plant use and line losses.

[3] Includes commercial food service, public utilities, real estate, public health, sports, education, broadcasting, research, government, and other organizations.

[4] Totals are slightly smaller than those reported by the NBS.

[5] Actual consumption + maximum possible consumption.

N.B. Totals for some years do not equal the sum of sectoral subtotals.

Source: NBS, China Energy Statistical Yearbook, various years; Energy Research Institute.

Table 5C.3. Total Stock of Electricity-Consuming Equipment by Subsector

3. Equipment Utilization Rates^[5]

	1992	1993	1994	1995	1996	1997	1998
Agriculture and Associated Sectors	0.09	0.09	0.10	0.10	0.11	0.01	0.10
Irrigation	0.09	0.09	0.10	0.10	0.10	0.12	0.11
Agricultural Sidel	0.09	0.10	0.10	0.10	0.10	0.10	0.10
Agriculture	0.09	0.09	0.09	0.10	0.10	0.11	0.10
Forestry	0.08	0.10	0.13	0.12	0.15	0.11	0.11
Livestock	0.13	0.13	0.13	0.15	0.15	1.50	0.13
Fisheries	0.10	0.11	0.13	0.15	0.14	1.66	0.15
Water conservancy	0.08	0.07	0.09	0.10	0.10	0.10	0.09
Other	0.12	0.13	0.13	0.12	0.14	0.13	0.13
Total Industry ^[1]	0.27	0.27	0.29	0.29	0.30	0.30	0.29
Light Industry	0.21	0.21	0.21	0.22	0.21	0.21	0.20
Heavy Industry	0.30	0.30	0.32	0.32	0.33	0.33	0.32
Other ^[1]	0.11	0.12					
Rural Industry	0.19	0.20	0.21	0.22	0.21	0.23	0.20
Extraction:							
Coal	0.29	0.29	0.30	0.31	0.31	0.30	0.28
Petroleum & NG	0.31	0.32	0.33	0.34	0.36	0.36	0.36
Ferrous Metals	0.33	0.33	0.26	0.33	0.32	0.39	0.26
Nonferrous Metals	0.28	0.26	0.26	0.29	0.31	0.29	0.30
Construction Materials & Other Non	0.18	0.20	0.19	0.20	0.19	0.21	0.19
Salt	0.24	0.24	0.00	0.00	0.00	0.00	0.00
Other Mineral	0.18	0.12	0.18	0.24	0.27	0.21	0.19
Timber & Bamboo	0.28	0.28	0.34	0.29	0.27	0.28	0.26
Water Supply	0.29	0.29	0.28	0.29	0.28	0.26	0.25
Extraction Subtotal	0.29	0.29	0.29	0.30	0.30	0.30	0.28
Manufacturing:							
Food, Beverage & Tobacco	0.16	0.16	0.16	0.17	0.16	0.16	0.15
Spinning & Weaving	0.26	0.27	0.26	0.26	0.26	0.27	0.25
Paper & Paper Production	0.30	0.29	0.29	0.31	0.29	0.28	0.25
Electricity, Steam & Hot Water ^[2]	0.49	0.52	0.61	0.83	0.74	0.82	0.85
Petroleum Refining	0.33	0.37	0.37	0.40	0.40	0.37	0.34
Coking, Coal Gas & Coal Products	0.16	0.15	0.16	0.19	0.19	0.20	0.20
Chemicals	0.36	0.33	0.40	0.41	0.41	0.40	0.37
Pharmaceuticals	0.28	0.26	0.28	0.29	0.28	0.25	0.24
Synthetic Fibers	0.37	0.38	0.38	0.38	0.40	0.40	0.37
Rubber & Plastics	0.19	0.19	0.19	0.20	0.19	0.20	0.20
Construction Materials and Nonmetal							
Mineral Products	0.24	0.24	0.25	0.26	0.25	0.24	0.23
Ferrous Metals Smelting & Rolling	0.33	0.35	0.32	0.32	0.32	0.32	0.32
Nonferrous Metals Smelting & Rolli	0.36	0.38	0.34	0.37	0.38	0.40	0.40
Metal Products	0.13	0.14	0.15	0.15	0.15	0.16	0.15
Machinery	0.14	0.15	0.14	0.14	0.13	0.13	0.13
Transportation, Electrical & Electronic							
Equipment	0.14	0.16	0.16	0.16	0.16	0.15	0.16
Other Industrial	0.14	0.14	0.15	0.17	0.16	1.30	1.26
Manufacturing Subtotal ^[2]	0.27	0.28	0.29	0.29	0.30	2.82	2.76
Transportation and telecommunications	0.13	0.12	0.13	0.14	0.14	0.14	0.13
Transportation	0.12	0.12	0.13	0.13	0.13	0.13	0.12
Pipelines	0.29	0.28	0.31	0.28	0.26	0.24	0.20
Electric Railways	0.09	0.10	0.12	0.12	0.12	0.12	0.13
Posts and Telecommunications	0.15	0.16	0.16	0.19	0.18	0.20	0.19
Other Production Sectors ^[3]	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Households	0.17	0.18	0.18	0.18	0.17	0.17	0.16
Urban	0.16	0.12	0.27	0.28	0.28	0.15	0.14
Rural	0.19	0.27	0.13	0.13	0.11	0.20	0.19
Total of All Sectors ^[2]	0.21	0.22	0.22	0.23	0.23	0.23	0.22

[1] Includes NBS categories of Geological Survey and Exploration, and Construction.

[2] Electricity sector capacity figures before 1990 do not include equipment such as substation transformers. If adjusted to the pre-1990 category definition, capacity would be 9.67 GW. Electricity use is divided almost evenly between in-plant use and line losses.

[3] Includes commercial food service, public utilities, real estate, public health, sports, education, broadcasting, research, government, and other organizations.

[4] Totals are slightly smaller than those reported by the NBS.

[5] Actual consumption + maximum possible consumption.

N.B. Totals for some years do not equal the sum of sectoral subtotals.

Source: NBS, China Energy Statistical Yearbook, various years; Energy Research Institute.

Table 5C.4. Rail, Water, and Air Freight Transport Energy Intensities^[1] (1980-1996)

1. Rail Transport

Railway Administration	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Steam Locomotives		kgce per 1000 t-km																
Harbin						23.17	23.09	22.50	22.77	23.07	23.30	23.65						
Shenyang						17.02	17.10	17.41	17.63	17.90	19.07	21.87						
Beijing						14.56	14.10	15.12	16.59	17.23	17.78	18.72						
Hohot						18.40	18.35	18.54	18.50	19.12	19.04	19.52						
Zhengzhou						14.24	13.97	13.90	13.73	14.16	15.42	14.85						
Jinan						13.76	15.06	15.44	14.78	14.29	15.63	16.32						
Shanghai						15.68	16.85	17.49	18.50	19.47	19.50	19.71						
Guangzhou						14.13	14.11	14.14	15.78	19.98	21.68	22.43						
Yingzhou						14.19	13.79	13.68	13.28	12.78	13.14	13.74						
Chengdu						18.94	19.78	21.54	19.78	19.50	19.30	19.15						
Lanzhou						26.38	26.30	26.42	26.53	27.33	28.35	28.42						
Urumqi						17.50	17.44	21.07										
Average						17.33	17.49	18.10	17.99	18.62	19.29	19.85						
Reported Average, Key Enterprises		16.38	16.66	16.71	16.56	16.56	16.77	17.12	17.54	17.99	19.03	19.79	19.98	19.66	20.06			
Diesel Locomotives		kg diesel/1000 t-km																
Harbin						4.01	4.14	3.84	3.61	3.24	3.09	2.98						
Shenyang						3.30	3.14	2.73	2.56	2.42	2.26	2.24						
Beijing						2.63	2.58	2.54	2.41	2.42	2.41	2.40						
Hohot									3.53	2.83	2.58	2.54						
Zhengzhou						2.54	2.28	2.17	2.12	2.12	2.06	2.11						
Jinan						2.27	2.02	2.00	1.99	1.98	1.97	2.00						
Shanghai						2.63	2.11	1.98	1.96	1.96	1.97	2.00						
Guangzhou						3.00	2.91	2.78	2.52	2.35	2.18	2.23						
Yingzhou						4.55	3.94	3.83	3.73	3.74	3.32	3.05						
Chengdu						4.67	4.58	4.53	4.58	4.61	4.62	4.64						
Lanzhou						6.61	5.59	4.57	4.35	4.32	4.28	4.15						
Urumqi						3.87	3.69	3.51	3.30	3.24	3.24	3.23						
Average						3.64	3.36	3.13	3.06	2.94	3.09	3.05						
Reported Average, Key Enterprises		3.5	3.41	3.29	3.24	3.14	2.88	2.68	2.59	2.52	2.44	2.44	2.43	2.44	2.44	2.42	2.42	2.46
Electric Locomotives		kWh/1000 t-km																
Average		12.8	12.21	12.06	12.48	12.72	12.15	11.40	11.25	11.26	11.02	11.10	11.26	11.24	11.12	11.08	10.94	10.99

2. Water Transport (ocean and coastal shipping units)

		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Diesel	kg diesel/1000 t-naut. mile	8.67	9.26	9.04	8.72	8.35	8.55	8.58	8.05	7.99	8.2	8.2						
Heavy Oil	kg resid oil/1000 t-naut. mile	56.42	57.26	55.48	54.07	54.22	60.54	61.36	70.56									
Oil use, state ocean shipping	kg/1000 naut. mile	9.21	8.89	8.70	8.31	7.84	8.20	8.17	7.60	7.52	7.98	7.99	7.53	8.24	8.30	8.30	8.25	8.20
Oil use, state coastal shipping	kg/1000 t-km	12.28	10.84	9.80	8.73	7.88	7.50	6.70	6.80	6.70	6.60	7.00						
Oil use, state inland shipping	kg/1000 t-km	12.80	12.80	12.30	11.50	10.90	10.30	10.10	9.80	9.40	9.40	9.60	6.81	6.60	6.50	7.45	7.40	7.30
Oil use, local inland shipping	l/100 t-km	8.70	8.50	8.20	8.00	7.90	7.70	7.60	7.60	7.20	7.10	7.10						

3. Air Transport (civil aviation)

Average	kg/1000 t-km	0.66	0.68	0.64	0.66	0.64	0.51	0.50	0.49	0.44	0.50	0.50	0.51	0.51		0.42	0.42	0.42
---------	--------------	------	------	------	------	------	------	------	------	------	------	------	------	------	--	------	------	------

N.B. Water transport includes only dedicated shipping enterprises, excluding the large number of vessels operated privately and by non-transportation enterprises.

Source: SSB, China Energy Statistical Yearbook, 1989 and 1991; CTA, China Transportation Yearbook, 1994; Energy of China, no. 3, 1994; SPC, 1993, 1997.

Figure 5C.1. Capacity of Electricity-Consuming Equipment, 1986-98

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[Figure 6-1. Ex-Factory Price Indices for Industrial Products by Sector](#)

Table 6B.1. Ex-Factory Price Indices for Industrial Products by Sector, 1980-2006

1. Previous year =100

	Overall Industry	Power	Coal	Petroleum
1980	100.5	98.4	106.4	102.1
1981	100.2	101.6	102.6	99.3
1982	99.8	98.9	101.9	100.5
1983	99.9	105.6	101.5	106.3
1984	101.4	102.1	102.6	112.0
1985	108.7	103.4	117.6	107.2
1986	103.8	102.4	96.8	104.6
1987	107.9	103.1	102.8	104.0
1988	115.0	101.7	110.6	106.8
1989	118.6	105.9	112.2	108.4
1990	104.1	107.4	106.2	107.1
1991	106.2	116.9	113.1	118.8
1992	106.8	108.8	116.1	115.3
1993	124.0	135.9	139.7	171.3
1994	119.5	139.5	122.2	148.7
1995	114.9	109.5	111.3	121.2
1996	102.9	113.1	113.7	104.6
1997	99.7	114.0	108.0	107.4
1998	95.9	105.5	96.6	93.0
1999	97.6	100.9	94.8	109.6
2000	102.8	102.4	98.1	144.3
2001	98.7	102.3	106.5	99.1
2002	97.8	100.8	111.6	95.2
2003	102.3	100.9	107.0	115.6
2004	106.1	102.4	115.9	114.2
2005	104.9	104.2	118.2	122.4
2006	103.0	102.8	105.8	120.3

Source: NBS, China Statistical Yearbook, various years.

Table 6B.1. Ex-Factory Price Indices for Industrial Products by Sector, 1980-2006 (continued)

2. 1980 =100

	Overall Industry	Power	Coal	Petroleum
1980	100.0	100.0	100.0	100.0
1981	100.2	101.6	102.6	99.3
1982	100.0	100.5	104.5	99.8
1983	99.9	106.1	106.1	106.1
1984	101.3	108.3	108.9	118.8
1985	110.1	112.0	128.0	127.4
1986	114.3	114.7	123.9	133.2
1987	123.3	118.3	127.4	138.6
1988	141.8	120.3	140.9	148.0
1989	168.2	127.4	158.1	160.4
1990	175.1	136.8	167.9	171.8
1991	186.0	159.9	189.9	204.1
1992	198.6	174.0	220.5	235.3
1993	246.3	236.5	308.0	403.1
1994	294.3	329.9	376.4	599.4
1995	338.1	361.2	418.9	726.5
1996	347.9	408.5	476.3	759.9
1997	346.9	465.7	514.4	816.1
1998	332.7	491.3	496.9	759.0
1999	324.7	495.7	471.1	831.9
2000	333.8	507.6	462.1	1,200.4
2001	329.4	519.3	492.2	1,189.6
2002	322.2	523.5	549.3	1,132.5
2003	329.6	528.2	587.7	1,309.2
2004	349.7	540.8	681.2	1,495.1
2005	366.8	563.6	805.2	1,830.0
2006	377.9	579.3	851.9	2,201.5

Source: NBS, China Statistical Yearbook, various years.

Table 6B.1. Ex-Factory Price Indices for Industrial Products by Sector, 1980-2006 (continued)

3. 1990 = 100

	Overall Industry	Power	Coal	Petroleum
1980	57.1	73.1	59.6	58.2
1981	57.2	74.3	61.1	57.8
1982	57.1	73.5	62.3	58.1
1983	57.1	77.6	63.2	61.7
1984	57.9	79.2	64.8	69.2
1985	62.9	81.9	76.3	74.1
1986	65.3	83.9	73.8	77.5
1987	70.4	86.5	75.9	80.7
1988	81.0	87.9	83.9	86.1
1989	96.1	93.1	94.2	93.4
1990	100.0	100.0	100.0	100.0
1991	106.2	116.9	113.1	118.8
1992	113.4	127.2	131.3	137.0
1993	140.6	172.8	183.4	234.6
1994	168.1	241.1	224.2	348.9
1995	193.1	264.0	249.5	422.9
1996	198.7	298.6	283.7	442.3
1997	198.1	340.4	306.4	475.1
1998	190.0	359.1	296.0	441.8
1999	185.4	362.4	280.6	484.2
2000	190.6	371.1	275.2	698.7
2001	188.1	379.6	293.1	692.4
2002	184.0	382.6	327.1	659.2
2003	188.2	386.1	350.0	762.0
2004	199.7	395.4	405.7	870.3
2005	209.5	412.0	479.5	1,065.2
2006	215.8	423.5	507.3	1,281.4

Source: NBS, China Statistical Yearbook, various years.

Table 6B.1. Ex-Factory Price Indices for Industrial Products by Sector, 1980-2006 (continued)

4. 2000 = 100

	Overall Industry	Power	Coal	Petroleum
1980	29.96	19.70	21.64	8.33
1981	30.02	20.01	22.20	8.27
1982	29.96	19.79	22.62	8.31
1983	29.93	20.90	22.96	8.84
1984	30.35	21.34	23.56	9.90
1985	32.99	22.07	27.71	10.61
1986	34.24	22.60	26.82	11.10
1987	36.95	23.30	27.57	11.54
1988	42.49	23.69	30.49	12.33
1989	50.39	25.09	34.21	13.36
1990	52.46	26.95	36.33	14.31
1991	55.71	31.50	41.09	17.00
1992	59.50	34.28	47.71	19.60
1993	73.78	46.58	66.65	33.58
1994	88.17	64.98	81.45	49.93
1995	101.30	71.15	90.65	60.52
1996	104.24	80.47	103.07	63.30
1997	103.93	91.74	111.31	67.99
1998	99.67	96.79	107.53	63.23
1999	97.28	97.66	101.94	69.30
2000	100.00	100.00	100.00	100.00
2001	98.70	102.30	106.50	99.10
2002	96.53	103.12	118.85	94.34
2003	98.75	104.05	127.17	109.06
2004	104.77	106.54	147.39	124.55
2005	109.91	111.02	174.22	152.45
2006	113.20	114.13	184.32	183.39

Source: NBS, China Statistical Yearbook, various years.

Figure 6-1. Ex-Factory Price Indices for Industrial Products by Sector, 1980-2006

1. Index of Industry and Energy Prices (1990 = 100)

2. Index of Industry and Energy Prices (2000 = 100)

Table 6B.2(a). Average Minemouth Sales Price of Raw and Washed Coal, Major State-Owned Mines (yuan/t)

Year	Average Price of Raw and Washed Coal	Datong Bureau	Kailuan Bureau	Huaibei Bureau
1953	11.00			
1957	11.46			
1965	17.68			
1975	16.48			
1980	21.33			
1982	21.58			
1984	22.73			
1985	26.05			
1986	26.51	27.93	26.84	
1987	26.28	28.32		27.04
1988	27.72			
1990	43.85			
1991	47.89	49.14	53.10	55.45
1992	54.73	58.04	61.65	58.28

Source: Energy Research Institute.

Table 6B.2(b). Price of Raw Coal in Major Stated-Owned Coal Enterprises, 2000-2005 (yuan/t)

Year	2000	2001	2002	2003	2004	2005
Raw Coal	140.19	150.59	167.81	173.54	241.83	270.20

Source: China Energy Development Report 2007.

Table 6B.3. Average Prices for Coking Coal and Steam Coal (US dollars/t)^[1]

Month	1996				1997				1998				1999			
	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite
Jan	37.01		50	10	39.81		60	10	36.86	29.85	60	10	38.47	29.69	40	10
Feb	37.80		40	40	39.09		67	10	37.44	29.32	50	10	38.61	29.01	40	30
Mar	37.95		50	50	44.58		50	10	36.65	29.25	50	20	38.57	28.98	40	10
Apr	39.94		50	10	41.41		50	10	37.06	29.74	40	20	38.53	28.85	40	10
May	39.18		50	10	42.73		50	10	38.95	29.95	50	10	38.38	29.28	40	10
Jun	39.20		50	10	43.44		50	10	38.14	30.33	40	10	38.53	28.85	40	10
Jul	41.53		40	10	44.64		50	10	37.30	30.24	40	10	37.96	28.56	40	10
Aug	41.19		40	10	44.62		50	10	38.22	30.13	50	10	37.63	28.49	40	10
Sep	41.30		60	10	42.00		50	10	38.09	28.80	40	10	37.18	29.16	40	10
Oct	41.41		40	10	43.11		50	10	36.88	29.01	40	10	37.47	28.17	40	10
Nov	42.25		70	10			50	10	38.08	29.51	40	10	37.31	27.60	40	10
Dec	41.28		50	10			50	20	38.06	30.21	40	10	37.34	27.63	40	10

Month	2000				2001				2002				2003			
	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite
Jan	37.49	27.57	40	10	36.69	27.02	40	10	37.07	29.61	30	20	38.80	30.45	40	20
Feb	37.45	28.45	30	10	36.18	26.78	40	10	37.90	29.94	30	20	38.64	30.07	30	20
Mar	37.29	29.40	30	10	35.95	26.90	40	10	38.02	30.49	40	30	39.44	30.11	30	20
Apr	36.32	27.88	40	10	35.90	26.98	40	10	38.06	30.44	30	20	40.01	30.95	30	20
May	35.97	27.41	30	10	36.03	26.69	40	10	38.59	30.81	40	20	41.28	32.97	30	20
Jun	37.72	26.88	30	10	36.00	26.60	40	10	38.28	30.57	40	20	42.94	32.20	50	20
Jul	37.42	26.68	30	10	35.95	26.78	50	10	38.64	30.48	40	20	42.71	30.82	50	20
Aug	37.49	26.40	20	10	36.09	27.47	40	10	38.69	30.29	40	20	40.50	29.92	50	20
Sep	37.53	26.40	40	10	36.38	27.74	40	20	38.74	30.26	30	20	40.78	40.85	40	20
Oct	37.39	26.40	40	10	36.08	27.25	40	20	38.93	30.70	30	20	41.99	31.20	50	20
Nov	37.51	26.79	40	10	36.15	27.59	40	20	38.81	30.63	30	20			40	20
Dec			40	10	36.34	28.13	40	20	38.84	30.55	30	20			40	20

Month	2004				2005				2006 ^[2]			
	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite	Coking Coal	Steam Coal	Imported Bituminous	Imported Anthracite
Jan	47.69	38.26	50	30	57.32	51.98	80	30	70.13	50.89	60	30
Feb	48.32	38.48	60	20	59.08	50.54	80	40	68.27	51.11	70	30
Mar	49.79	39.53	50	20	62.25	50.31	60	40	68.61	55.22	70	30
Apr	52.50	36.35	60	20	62.42	51.34	90	40	68.88	59.48	60	30
May	52.62	42.75	60	30	63.71	51.29	70	40	68.97	62.57	50	30
Jun	53.61	43.78	70	30	63.89	51.59	90	40	70.37	69.37	50	30
Jul	54.43	44.89	60	30	64.50	63.61	60	40	70.57	66.07	40	30
Aug	54.64	46.04	50	30	64.58	50.52	60	40	70.17	64.04	70	30
Sep	51.35	44.83	70	30	64.93	51.54	60	40	69.78	65.07	50	30
Oct	53.83	47.72	40	30	55.07	48.82	70	40	74.23	61.77	50	30
Nov			70	30	55.88	49.80	50	40			50	30
Dec	54.94	49.51	70	30	67.85	52.71	70	40			60	30

[1] See table 6B.14 for exchange rate between US dollars and RMB yuan; price data are nominal.

[2] Data for November and December are unavailable due to discontinued data in sources.

Source: Energy Research Institute; BECon; China Customs Data.

Table 6B.4. Ex-refinery Oil Products Prices (US dollars/t)^[1]

Product	Grade	1994	1998	1999	2001	2002	1/2003	2/2003	3/2003
Gasoline	70#	\$272.60	\$310.08	\$311.04					
	90#	\$287.50	\$323.00	\$324.00	\$425.77	\$421.81	\$466.57	\$485.96	\$486.91
	93#	\$299.40	\$339.15	\$340.20					
	97#	\$314.20	\$373.07	\$356.40					
	90# unleaded	\$299.40	\$339.15	\$340.20					
	93# unleaded	\$322.60	\$364.99	\$366.12					
	95# unleaded	\$328.60	\$371.45	\$372.60					
Diesel	+10#		\$275.52	\$287.04					
	+5#	\$222.00	\$281.26	\$293.02					
	0#	\$226.20	\$287.00	\$299.00	\$376.12	\$375.70	\$418.98	\$440.04	\$437.83
	-10#	\$241.10	\$304.22	\$316.94					
	-50#	\$267.30	\$338.66	\$352.82					
Jet fuel	1#	\$241.40							
	2#	\$246.40							
	3#	\$253.60							
	4#	\$242.90							
Kerosene (lighting)		\$232.70							
LPG ^[2]		\$95.20	\$305.24	\$306.18					

[1] See table 6B.14 for exchange rate between US dollars and RMB yuan.

[2] LPG price is calculated based on average quality factors (85%-95%).

Source: Energy Research Institute; BECon.

Table 6B.5. Exchange Rate between US Dollar and Yuan (yuan Renminbi/US\$100), 1996-2006

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1996	831.80	831.38	832.11	833.39	833.01	832.55	832.17	831.07	830.61	830.15	830.07	830.12
1997	829.48	829.38	829.64	829.43	829.23	829.16	829.08	828.90	828.59	828.34	828.02	827.70
1998	827.89	827.98	827.97	827.87	827.97	827.99	827.99	827.99	827.82	827.76	827.82	827.85
1999	827.78	827.74	828.00	827.94	827.86	827.75	827.74	827.71	827.75	827.75	827.85	827.96
2000	827.89	827.80	828.87	827.86	827.69	827.73	827.97	827.99	827.91	827.84	827.71	827.68
2001	827.64	827.76	827.71	827.69	827.70	827.67	827.73	827.72	827.70	827.67	827.70	827.67
2002	827.37	827.66	827.72	827.73	827.69	827.71	827.69	827.68	827.71	827.70	827.71	827.72
2003	827.67	827.74	827.71	827.70	827.68	827.70	827.72	827.68	827.73	827.67	827.70	
2004	827.70	827.71	827.72	827.68	827.69	827.66	827.67	827.67	827.66	827.65	827.65	827.65
2005	827.65	827.65	827.65	827.65	827.65	827.65	811.28	809.65	809.20	809.01	808.05	807.55
2006	806.20	804.32	802.45	802.20	802.16	800.38	798.77	797.19	791.50	790.07	784.02	

Source: Energy Research Institute; BECon.

Table 6B.6. Purchasing Price Indices of Raw Material, Fuel and Power, 1990-2006

1. Preceding year = 100

Year	General Index	Fuel and Power	Ferrous Metals	Nonferrous Metals	Building Materials
1990	105.6	110.7	103.9	97.2	115.2
1991	109.1	112.9	112.5	101.2	101.2
1992	111.0	116.4	114.5	112.4	118.8
1993	135.1	136.7	174.1	115.8	140.9
1994	118.2	118.0	103.8	110.7	114.3
1995	115.3	108.7	98.2	128.3	102.6
1996	103.9	110.2	99.3	92.4	102.5
1997	101.3	109.3	97.4	96.2	99.7
1998	95.8	99.1	95.1	88.3	98.6
1999	96.7	100.9	94.7	98.9	98.8
2000	105.1	115.4	100.9	110.3	101.5
2001	99.8	100.2	100.5	95.6	98.6
2002	97.7	100.1	98.2	96.5	98.2
2003	104.8	107.4	107.9	105.3	99.7
2004	111.4	109.7	120.4	120.1	105.1
2005	108.3	115.0	107.5	114.0	103.1
2006	106.0	111.9	98.3	130.8	101.9

2. 1990 = 100

Year	General Index	Fuel and Power	Ferrous Metals	Nonferrous Metals	Building Materials
1990	100.0	100.0	100.0	100.0	100.0
1991	109.1	112.9	112.5	101.2	101.2
1992	121.1	131.4	128.8	113.7	120.2
1993	163.6	159.1	199.3	130.2	167.4
1994	193.4	161.3	180.7	128.2	161.0
1995	222.9	128.3	101.9	142.0	117.3
1996	231.6	119.8	97.5	118.5	105.2
1997	234.6	120.4	96.7	88.9	102.2
1998	224.7	108.3	92.6	84.9	98.3
1999	217.3	100.0	90.1	87.3	97.4
2000	228.4	116.4	95.6	109.1	100.3
2001	227.9	115.6	101.4	105.4	100.1
2002	222.7	100.3	98.7	92.3	96.8
2003	233.4	107.5	106.0	101.6	97.9
2004	260.0	117.8	129.9	126.5	104.8
2005	281.6	126.2	129.4	136.9	108.4
2006	298.5	128.7	105.7	149.1	105.1

Source: NBS, China Statistical Yearbook, 2007.

Table 6B.7. Energy Price of Coal and Petroleum Products, 2004-2006

Energy Price 2004 (US\$/ton) ^{[1] [2]}

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Bitu1	47.69	48.32	49.79	52.5	52.62	53.61	54.43	54.64	51.35	53.83		54.94
Bitu2	38.26	38.48	39.53	36.35	42.75	43.78	44.89	46.04	44.83	47.72		49.51
Gasoline	542.85	542.96	543.44	584.6	5893.4	587.75	588.21	600.54	621.31	619.65		623.56
Diesel	432.63	432.49	433.41	435.48	455.5	464.75	465.92	477.54	497.07	497.82		499.68

Energy Price 2005 (US\$/ton) ^{[1] [2]}

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Bitu1	57.32	59.08	62.25	62.42	63.71	63.89	64.5	64.58	64.93	55.07	55.88	67.85
Bitu2	51.98	50.54	50.31	51.34	51.29	51.59	63.61	50.52	417.04	48.82	49.8	52.71
Gasoline	623	622.74	644.87	662.86	652.84	651.7	694.21	681.04	716.1	633.93	638.33	734.06
Diesel	499.1	498.98	499.85	501.61	512.8	521.47	556.05	570.96	572.4	509.29	512.06	586.65

Energy Price 2006 (US\$/ton) ^{[1] [2]}

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Bitu1	70.13	68.27	68.61	68.88	68.97	70.37	70.57	70.17	69.78	74.23		
Bitu2	410.26	411.11	443.15	477.15	501.92	555.24	527.77	510.5	515.01	488.05		
Gasoline	743.7	745.27	746.71	740.09	820.54	880.16	882.53	884	883.6	891.02		
Diesel	592.51	590.66	591.98	592.49	637.74	685.11	687.08	688.49	693.58	694.14		

[1] Bitu1.: Bituminous Coal for Coking

Bitu2.: Bituminous Coal for industrial Boiler

Gasoline: 90 RON gasoline; from May 2003, 97 RON unleaded gasoline.

Diesel: Diesel Oil 0#

[2] See Table 6B.5 for exchange rate between US dollars and RMB yuan.

Source: BECon.

Table 6B.8.1. Wholesale Price for Fuels in Major Cities on April 4, 2007

1. Wholesale price for diesel in major cities (April 4, 2007)

yuan/ton

City	Gov Guidance Price for 0# Diesel	Sinopec Corp Price for 0# Diesel	PetroChina Price for 0# Diesel	Other trader Price for 0# Diesel	Gov Guidance Price for -10# Diesel	Sinopec Corp Price for -10# Diesel	PetroChina Price for -10# Diesel	Other trader Price for -10# Diesel
Harbin	5,131	/	5,131	/	5,439	/	/	/
Shenyang	5,131	/	5,131	/	5,439	/	5,439	/
Changchun	5,131	/	5,131	/	5,439	/	/	/
Jinzhou	5,131	/	5,131	/	5,439	/	/	/
Dalian	5,131	5,131	5,373	5,500	5,439	/	5,439	/
Beijing	5,327	5,250	5,328	5,200	5,647	5,300	5,647	5,200
Tianjin	5,131	5,170	5,200	5,100	5,439	5,360	5,400	5,450
Shijiazhuang	5,131	5,210	5,180	5,000	5,650	5,400	5,500	5,400
Tangshan	5,131	5,230	5,150	5,100	5,750	5,400	5,450	5,400
Qinhuangdao	5,948	5,200	5,200	5,150	5,439	5,540	5,500	/
Taiyuan	5,188	5,700	5,700	5,800	5,499	5,300	5,300	5,750
Zhengzhou	5,152	5,153	5,210	5,400	5,461	5,320	5,412	5,300
Luoyang	5,152	5,680	/	5,600	5,461	/	/	/
Qingdao	5,142	5,420	5,250	5,700	5,450	/	/	/
Jinan	5,142	5,420	/	5,700	5,450	5,550	/	/
Dongying	5,142	5,420	/	5,500	5,450	/	/	/
Lianyungang	5,172	5,260	5,260	/	5,483	5,850	/	/
Nantong	5,172	5,300	5,250	5,250	5,483	/	/	/
Jiangyin	5,152	5,250	5,250	/	5,461	/	/	/
Nanjing	5,121	5,280	5,280	5,250	5,428	5,750	/	5,650
Wuxi	5,152	5,350	5,280	5,250	5,461	/	/	/
Shanghai	5,136	5,400	5,350	5,280	5,444	/	/	/
Hangzhou	5,147	5,250	5,250	5,300	5,455	/	5,150	/
Ningbo	5,198	5,300	5,250	5,250	5,510	/	/	/
Jinhua	5,198	5,300	5,200	/	5,510	/	/	/
Taizhou	5,198	5,650	5,600	5,300	5,510	/	/	/
Wenzhou	5,198	5,300	5,260	/	5,510	/	/	/
Fuzhou	5,178	5,280	5,151	/	/	/	/	/
Xiamen	5,178	5,280	5,151	/	/	/	/	/
Quanzhou	5,178	5,180	5,151	5,050	/	/	/	/
Hefei	5,157	5,350	5,280	5,300	/	5,900	5,780	/
Wuhan	5,157	5,450	5,300	5,580	/	5,780	5,750	/
Jinmen	5,157	5,750	/	/	/	/	/	/
Changsha	5,167	5,300	5,300	/	/	/	/	/
Shaoyang	5,167	5,483	/	/	/	/	/	/
Nanchang	5,152	5,280	5,260	5,700	/	/	/	/
Jiujiang	5,152	5,650	/	/	/	/	/	/
Ganzhou	5,152	5,700	/	/	/	/	/	/
Fuyang	5,152	5,900	/	/	/	/	/	/
Yueyang	4,940	5,483	/	/	/	/	/	/
Shantou	5,198	5,360	5,198	5,200	/	/	/	/
Guangzhou	5,198	5,233	5,200	/	/	/	/	/
Shenzhen	5,198	5,200	5,190	5,130	/	/	/	/
Zhanjiang	5,198	5,900	5,750	/	/	/	/	/
Haikou	5,260	5,720	5,790	/	/	/	/	/
Guiyang	5,286	5,900	5,550	/	/	/	/	/
Kunming	5,317	5,602	/	5,600	/	/	/	/
Chengdu	5,358	5,550	5,399	5,620	/	/	/	/
Chongqing	5,322	5,302	5,302	5,550	/	/	/	/
Nanning	5,260	5,230	5,230	/	/	/	/	/
Beihai	5,260	/	5,230	/	/	/	/	/
Xi'an	5,142	5,760	/	5,880	5,450	/	/	/
Lanzhou	5,152	/	5,152	/	5,461	/	/	/
Xining	5,142	/	5,142	/	5,450	/	/	/
Yinchuan	5,131	/	5,131	/	5,439	/	/	/
Chifeng	5,093	/	5,093	/	5,398	/	/	/
Hohhot	5,147	/	5,147	/	5,455	/	/	/
Urumqi	5,033	/	5,033	/	5,335	/	/	/

Source: HC360.

2. Wholesale price for gasoline in major cities (April 4, 2007)

yuan/ton

City	Gov Guidance Price for -90# Gasoline	Sinopec Corp Price for -90# Gasoline	PetroChina Price for -90# Gasoline	Other trader Price for -90# Gasoline	Gov Guidance Price for -93# Gasoline	Sinopec Corp Price for -93# Gasoline	PetroChina Price for -93# Gasoline	Other trader Price for -93# Gasoline
Harbin	5,611	/	5,838	/	5,948	/	6,188	/
Shenyang	5,611	/	5,838	/	5,948	/	6,188	/
Changchun	5,611	/	5,838	/	5,948	/	6,188	/
Jinzhou	5,611	/	5,838	/	5,948	/	6,188	/
Dalian	5,611	/	5,611	5,750	5,948	/	5,948	/
Beijing	5,827	5,580	5,600	5,350	6,177	6,050	5,950	5,500
Tianjin	5,611	5,500	5,530	5,450	5,948	5,650	5,550	5,500
Shijiazhuang	5,611	5,510	5,400	5,250	6,188	5,600	5,500	5,350
Tangshan	5,611	5,530	5,450	5,500	6,188	5,630	5,500	/
Qinhuangdao	5,611	5,550	5,550	/	5,948	5,650	5,650	/
Taiyuan	5,678	5,300	5,250	5,200	6,018	5,500	5,500	5,400
Zhengzhou	5,631	5,350	/	/	5,970	5,939	/	/
Luoyang	5,631	5,858	/	/	5,970	6,210	/	/
Qingdao	5,621	6,050	/	5,750	5,958	6,250	6,230	/
Jinan	5,621	5,590	/	5,750	5,958	5,800	/	5,850
Dongying	5,621	5,950	/	5,850	5,958	6,300	/	5,900
Lianyungang	5,652	5,600	5,520	/	5,991	6,000	/	/
Nantong	5,652	5,550	5,520	5,500	5,991	5,850	5,800	5,750
Jiangyin	5,631	5,500	5,520	5,350	5,970	5,750	/	5,700
Nanjing	5,595	5,560	5,480	5,450	5,932	5,750	5,740	5,700
Wuxi	5,631	5,600	5,550	5,470	5,970	5,850	5,750	/
Shanghai	5,626	5,650	5,630	5,500	5,964	6,000	5,830	5,700
Hangzhou	5,626	5,600	5,520	/	5,970	5,750	5,650	5,700
Ningbo	5,678	5,720	5,700	5,700	6,032	/	/	/
Jinhua	5,678	5,650	5,600	/	6,032	5,770	5,700	/
Taizhou	5,678	5,570	5,500	/	6,032	5,770	5,700	/
Wenzhou	5,678	5,650	5,600	5,500	6,032	/	5,750	/
Fuzhou	5,662	5,633	5,600	/	6,002	5,770	5,680	/
Xiamen	5,662	5,633	5,600	/	6,002	5,770	5,680	/
Quanzhou	5,662	5,633	5,600	5,550	6,002	5,770	5,680	/
Hefei	5,631	5,731	/	/	5,970	6,056	/	/
Wuhan	5,637	5,300	5,300	5,650	5,974	5,600	5,550	/
Jinmen	5,637	5,956	/	/	6,126	6,313	/	/
Changsha	5,626	5,600	5,500	/	5,964	5,800	5,600	/
Shaoyang	5,626	/	/	/	6,204	6,277	/	/
Nanchang	5,631	5,580	5,520	/	5,970	5,780	/	/
Jiujiang	5,631	6,000	6,100	/	5,970	5,900	/	/
Ganzhou	5,631	6,200	/	/	5,970	6,400	/	/
Fuyang	5,631	5,885	/	/	6,210	/	/	/
Yueyang	5,853	6,200	/	/	6,204	6,472	/	/
Shantou	5,688	5,688	5,550	/	/	/	/	/
Guangzhou	5,688	5,580	5,550	/	/	5,750	5,700	/
Shenzhen	5,688	/	5,955	/	/	/	/	/
Zhanjiang	5,688	/	5,955	/	6,030	6,220	5,723	/
Haikou	5,750	5,449	/	/	/	/	/	/
Guiyang	5,781	5,800	5,650	5,500	6,128	6,521	6,500	/
Kunming	5,812	6,086	5,812	6,200	6,161	6,451	6,161	/
Chengdu	5,822	5,823	5,823	5,680	6,171	6,172	6,172	5,880
Chongqing	5,817	5,806	5,806	5,300	6,155	6,155	6,155	5,750
Nanning	5,750	5,650	5,750	/	6,095	6,025	6,025	/
Beihai	5,750	/	5,750	/	6,095	6,095	6,025	/
Xi'an	5,595	5,900	/	5,900	5,932	/	/	6,050
Lanzhou	5,595	/	5,822	/	6,172	/	6,172	/
Xining	5,595	/	5,822	/	5,898	/	6,172	/
Yinchuan	5,616	/	5,843	/	6,193	/	6,193	/
Chifeng	5,626	/	5,853	/	6,204	/	6,204	/
Hohhot	5,616	/	5,853	/	5,964	/	6,204	/
Urumqi	5,399	/	5,626	/	5,723	/	5,964	/

Source: HC360.

3. Domestic coal prices in major cities (Mar 26-Apr 2, 2007)

Region	Coal	Heat value	Price	Price (Yuan/ton)	Price (Yuan/ton)
	type	(Kcal/KG)	type	on Mar. 26	on Apr.02
Qinhuangdao Port, Hebei	Datong Quality Mix	6,000	FOB	490-500	485-495
Qinhuangdao Port, Hebei	Shanxi Quality Mix	5,500	FOB	453-461	448-456
Qinhuangdao Port, Hebei	Ordinary Mix	4,000	FOB	323-330	320-328
Qinhuangdao Port, Hebei	Shanxi Mix	5,000	FOB	408-416	405-413
Qinhuangdao Port, Hebei	Ordinary Mix	4,500	FOB	365-372	360-368
Tianjin Port	Steam coal	5,800	FOB	470-475	465-470
Tianjin Port	Steam coal	5,500	FOB	455-460	445-450
Tianjin Port	Steam coal	5,000	FOB	410	405
Tianjin Port	Raw coal	N/A	FOB	520	520
Tianjin Port	N/A	N/A	FOB	580	590
Tianjin Port	N/A	N/A	FOB	550	560
Shidongkou No.2 plant, Nantong Huaneng plant, Taicang Huaneng Plant	Datong coal	5,800		503	513
Xiagang plant, Yangzhou No.2 plant	Inner Mongolia coal	5,500		500	505
Shidongkou No.1 plant, Tiansheng Port plant	Meager lean coal	5,500		475	477
Nanjing, Jiangsu	Anthracite	5,500		550	550
Nanjing, Jiangsu	Bituminous coal	5,800		565	565
Nanjing, Jiangsu	Bituminous coal	6,200		680	680
Nanjing, Jiangsu	Bituminous coal	5,900		560	560
Nanjing, Jiangsu	3# Steam clean coal	6,800		630	630
Nanjing, Jiangsu		5,400		570	570
Jinsha, Guizhou	Anthracite	7,000	FP	390-410	390-410
Anshun, Guizhou	Anthracite	5,000	FP + T	240-260	240-260
Guiyang, Guizhou	Anthracite	6,500	FP	350-370	350-370
Zunyi, Guizhou	Anthracite	6,500	FP	340-360	340-360
Chifeng, Inner Mongolia	Steam coal	3,500	FP + TR + T	250	250
Baotou, Inner Mongolia	Clean coal	5,900	FP	205-215	205-215
Baotou, Inner Mongolia	Raw coal	6,100	FP	220-230	220-230
Wuhai, Inner Mongolia	Prime coking coal			610	610
Wuhai, Inner Mongolia	Raw coal	5,500-5,800	FP + TR + T	430	430
Qitaihe, Heilongjiang	Anthracite	5,400	CP + T	240-250	240-250
Hegang, Heilongjiang	Anthracite	5,500	FP + T	300-310	300-310
Shuangyashan, Heilongjiang	Anthracite	5,000	FP + T	250-260	250-260
Shuangyashan, Heilongjiang	Anthracite	5,500	FP + T	295-305	295-305
Jixi, Heilongjiang	Coking coal	Level 10		659	659
Qitaihe, Heilongjiang	Fat coal	Level 10		674	674
Jixi, Hegang, Heilongjiang				580	580
Shuangyashan, Qitaihe, Heilongjiang	1/3 coking coal	Level 8		580	580
Shuangyashan, Heilongjiang	Gas coal	Level 8		515	515
Yongcheng, Henan	Anthracite	5,500	FP + TR + T	480(Auto)	470(Auto)
Yongcheng, Henan	Anthracite	6,800	FP + TR + T	845(Auto)	840(Auto)
Yongcheng, Henan	Anthracite	6,800	FP + TR + T	670(Train)	670(Train)
Yongcheng, Henan	Anthracite	5,500	FP + TR + T	480(Train)	480(Train)
Jiaozuo, Henan	Anthracite	5,500	FP + TR + T	410(Train)	410(Train)
Jiaozuo, Henan	Anthracite	7,000	FP + TR + T	810(Train)	810(Train)
Jiaozuo, Henan	Anthracite	7,000	FP + TR + T	740(Train)	740(Train)
Jiaozuo, Henan	Anthracite	7,000	FP + TR + T	600(Train)	600(Train)
Hebi, Henan	N/A	5,300	FP + TR + T	410(Train)	410(Train)
Hebi, Henan	N/A	N/A	FP + TR + T	650 (Train)	650 (Train)
Yima, Henan	Long flame coal	4,200-4,300	FP + TR + T	350(Train)	350(Train)
Yima, Henan	Long flame coal	5,000	FP + TR + T	390(Auto)	390(Auto)
Yima, Henan	Long flame coal	>4,500	FP + TR + T	350(Train)	350(Train)
Zhengzhou, Henan	Meager lean coal	5,300	FP + TR + T	390(Train)	390(Train)
Xuchang, Henan	Meager lean coal	5,800	FP + TR + T	480(Auto)	500(Auto)
Gongyi, Henan	N/A	>5,700	FP + TR + T	330(Auto)	320(Auto)
Gongyi, Henan	N/A	>5,700	FP + TR + T	345(Auto)	335(Auto)

3. Domestic coal prices in major cities (Mar 26-Apr 2, 2007) (continued)

Region	Coal type	Heat value (Kcal/KG)	Price type	Price (Yuan/ton) on Mar. 26	Price (Yuan/ton) on Apr.02
Xingtai, Hebei	Prime coking coal	N/A	CP	725	715
Xingtai, Hebei	Fat coal	N/A	CP	710	710
Xingtai, Hebei	1/3Coking coal	N/A	CP	700	700
Xingtai, Hebei	1/3Coking coal	N/A	CP	720	720
Xingtai, Hebei	Lean coal	N/A	CP	590	590
Kailuan, Hebei	Fat coal	N/A	FP	691	691
Kailuan, Hebei	Coking coal	N/A	FP	691	691
Kailuan, Hebei	1/3 coking coal	N/A	FP	691	691
Kailuan, Hebei		4,300	FP	309	309
Kailuan, Hebei	Steam coal	4,600	FP	377	377
Jingtang Port, Hebei		4,300	FOB	355	355
Jingtang Port, Hebei	Steam coal	4,600	FOB	380	380
Zaozhuang, Shandong	N/A	>5,500	FP + TR + T	390-400	390-400
Zaozhuang, Shandong	N/A	>6,000	FP + TR + T	480	480
Zaozhuang, Shandong	N/A	>5,100	FP + TR + T	360-370	360-370
Zaozhuang, Shandong	N/A	>4,400	FP + TR + T	290	290
Zaozhuang, Shandong	N/A	>5,400	FP + TR + T	400	400
Zibo, Shandong	Meager lean coal	5,200	FP + TR + T	420	420
Zibo, Shandong	Meager lean coal	6,800	FP + TR + T	698	698
Zibo, Shandong	Meager lean coal	5,000	FP + TR + T	400	400
Zibo, Shandong	Gas coal	5,500	FP + TR + T	450	450
Zibo, Shandong	Gas coal	6,600	FP + TR + T	650	650
Zibo, Shandong	Gas coal	5,000	FP + TR + T	440	440
Zibo, Shandong	Meager coal	5,000	FP + TR + T	420	420
Rizhao Port, Shandong	Gas coal	5,500	FOB	460	460
Rizhao Port, Shandong	Gas coal	5,000	FOB	430	430
Hefei, Anhui	N/A	5,800	FP + TR + T	510	510
Huainan, Anhui	Gas coal	4,700	FP + TR + T	435	435
Huainan, Anhui	Gas coal	5,200	FP + TR + T	480	480
Huainan, Anhui	1/3 coking coal	5,300	FP + TR + T	500	500
Xi'an, Shaanxi	Bituminous coal	5,500	FP + TR + T	350-360	350-360
Baoji, Shaanxi	Bituminous coal	5,200	FP + TR + T	220	220
Yulin, Shaanxi	Bituminous coal	5,800	FP	180-220	180-220
Yulin, Shaanxi	Bituminous coal	6,500	FP	240-260	240-260
Datong, Shanxi	Bituminous coal	6,000	FP + TR + T	470-490	470-490
Taiyuan, Shanxi	Bituminous coal	7,000	CP	240-245	240-245
Taiyuan, Shanxi	N/A	6,500	CP	230-240	230-240
Jincheng, Shanxi	Anthracite	7,000	FP + TR + T	560-570	560-570
Jincheng, Shanxi	N/A	6,000	CP + T	320-330	320-330
Linfen, Shanxi	Prime clean coking coal	N/A	FP + T	510-530	510-530
Linfen, Shanxi	Clean fat coal	N/A	FP + T	510-520	510-520
Yangquan, Shanxi	Anthracite	7,350-6,850		690	690
Yangquan, Shanxi	Anthracite	6,400-5,600	FP + TR + T	365	365
Taiyuan, Shanxi	Meager lean coal	>5,300		300-320	300-320

N.B. FP = Factory price, TR = Transportation, T = Tax, CP = Coalmine price

Source: China Coal Trade & Development Association

4. Domestic price for liquefied petroleum gas (LPG) (Mar 31-Apr 4, 2007)

Unit: Yuan/ton

LPG Producer	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr
Daqing Petrochemical Company (Road delivery)	3,450	3,450	3,550	3,650	3,650
Daqing Petrochemical Company (Railway delivery)	3,350	3,350	3,550	3,550	3,550
Daqing Refinery Company (Road delivery)	3,450	3,450	3,450	3,650	3,650
Daqing Refinery Company (Railway delivery)	3,250	3,250	3,250	3,450	3,450
Harbin Refinery (Road delivery)	3,500	3,500	3,600	3,700	3,700
Harbin Refinery (Railway delivery)	3,250	3,250	3,350	3,450	3,450
Daqing Fine Refinery	3,600	3,600	3,600	3,900	3,900
Yushutun Refinery (Road delivery)	3,400	3,400	3,500	3,600	3,600
Lamadian Refinery	3,450	3,450	3,550	3,650	3,650
Qianguo Refinery	3,500	3,500	3,600	3,650	3,650
Jihua Refinery	3,520	3,520	3,650	3,750	3,750
Shenyang Paraffin Plant	4,050	4,050	4,150	4,150	4,200
Fushun Oil No.1 Plant	/	/	/	/	/
Fushun Oil No.2 Plant (Road delivery)	3,670	3,670	3,720	3,850	3,850
Fushun Oil No.2 Plant (Railway delivery)	3,400	3,400	3,400	3,700	3,700
Liaoyang Chemical Fiber	3,700	3,700	3,850	3,850	4,000
Anshan Refinery	/	/	/	/	/
Jinzhou Petrochemical (Road delivery)	3,700	3,850	3,900	4,000	3,950
Jinxi Refinery	3,750	3,850	3,950	3,950	3,950
Liaohe Oilfield Petrochemical	3,650	3,650	3,850	3,850	3,980
Liaoning Panjin Heyun Group	3,720	3,780	3,850	3,850	3,980
Dalian Petrochemical (Road delivery)	3,950	3,950	3,950	3,950	3,950
Dalian Petrochemical (Seaway delivery)	3,951	3,951	3,951	3,951	3,951
Dalian West Pacific (Road delivery)	3,650	3,650	3,650	3,650	3,650
Dalian West Pacific (Seaway delivery)	3,646	3,646	3,646	3,646	3,646
Dalian Jinggu	3,950	3,950	3,950	3,950	3,950
Inner Mongolia Hohhot Refinery	3,800	3,800	3,900	3,980	3,980
Yanshan Petrochemical	4,000	4,000	4,200	4,200	4,300
Tianjin Refinery	4,000	4,030	4,030	4,030	4,120
Dagang Petrochemical	3,930	3,950	4,000	4,000	4,050
Shijiazhuang Refinery	4,100	4,150	4,170	4,170	4,220
Cangzhou Refinery	4,020	4,050	4,050	4,050	4,120
Huabei Petrochemical	4,100	4,120	4,120	4,120	4,200
Zhongjie Refinery	3,960	3,960	4,040	4,040	4,100
Jinan Refinery	4,250	4,250	4,250	4,250	4,250
Qingdao Petrochemical	4,200	4,270	4,270	4,270	4,300
Gaomi Yonghui	4,000	4,150	4,150	4,150	4,180
Qilu Petrochemical	4,210	4,210	4,210	4,210	4,210
Shengli Heavy Oil Plant	4,170	4,170	4,170	4,170	4,220
Guangao Petrochemical	4,100	4,100	4,100	4,100	4,150
Hengyuan Petrochemical	4,100	4,100	4,150	4,150	4,180
Shouguang Shuntai	4,100	4,100	4,100	4,120	4,180

4. Domestic price for liquefied petroleum gas (LPG) (Mar 31-Apr 4, 2007) (continued)

Unit: Yuan/ton

LPG Producer	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr
Shida Shenghua Refinery	4,050	4,070	4,070	4,070	4,170
Kenli Petrochemical	4,070	4,070	4,070	4,070	4,150
Lijin Petrochemical	4,070	4,070	4,070	4,070	4,100
Binzhou Petrochemical	4,030	4,050	4,050	4,050	4,150
Haikuo Petrochemical	4,100	4,100	4,100	4,100	4,150
Dawang Huaxing Petrochemical	4,150	4,150	4,150	4,150	4,200
Jingbo Petrochemical	4,150	4,150	4,150	4,150	4,220
Changcheng Petrochemical	/	/	/	/	/
Jincheng Petrochemical	/	/	/	/	/
Dongming Petrochemical	4,220	4,220	4,220	4,220	4,260
Huifeng Petrochemical	4,100	4,100	4,100	4,150	4,170
Luoyang Petrochemical (Road Delivery)	4,150	4,200	4,230	4,230	4,290
Luoyang Petrochemical (Railway Delivery)	4,250	4,300	4,330	4,330	4,390
Zhongyuan Oilfield	4,220	4,220	4,220	4,220	4,260
Nanyang Refinery	4,330	4,390	4,430	4,430	4,430
Weihai	/	/	/	/	/
Yantai	/	/	/	/	/
Longkou	/	/	/	/	/
Dushanzi Petrochemical (Road Delivery)	/	/	/	/	/
Dushanzi Petrochemical (Railway Delivery)	/	/	/	/	/
Tarim Oilfield (Railway Delivery)	2,300	2,300	2,300	2,300	2,300
Urumqi Petrochemical (Road Delivery)	2,700	2,700	2,700	2,700	2,700
Urumqi Petrochemical (Railway Delivery)	2,700	2,700	2,700	2,700	2,700
Tuoha Oilfield (Road Delivery)	3,200	3,200	3,200	3,200	3,200
Tuoha Oilfield (Railway Delivery)	2,900	2,900	2,900	2,900	2,900
Lanzhou Refinery (Road Delivery)	3,550	3,550	3,550	3,650	3,750
Lanzhou Refinery (Railway Delivery)	3,600	3,600	3,600	3,600	3,600
Yumen Refinery (Road Delivery)	3,200	3,200	3,200	3,200	3,200
Yumen Refinery (Railway Delivery)	3,100	3,100	3,100	3,100	3,100
Qinghai Oilfield (Road Delivery)	3,250	3,250	3,250	3,250	3,250
Qinghai Oilfield (Railway Delivery)	2,950	2,950	2,950	2,950	2,950
Xianyang Aids	3,960	4,020	4,050	4,050	4,050
Qingyang Petrochemical	3,350	3,350	3,350	3,350	3,350
Xi'an Petrochemical	3,980	4,040	4,080	4,080	4,080
Jingbian Refinery	4,300	4,300	4,300	4,300	4,300
Yongping Refinery	4,450	4,450	4,450	4,450	4,450
Yan'an Refinery	3,810	3,860	3,910	3,910	3,910
Yinchuan Refinery	3,650	3,650	3,750	3,750	3,750
Nanchong Refinery	3,950	3,950	4,000	4,100	4,200
Chengdu	4,150	4,150	4,150	4,250	4,300
Chongqing	4,200	4,200	4,200	4,300	4,300
Guizhou	4,400	4,400	4,400	4,400	4,400

4. Domestic price for liquefied petroleum gas (LPG) (Mar 31-Apr 4, 2007) (continued)

Unit: Yuan/ton

LPG Producer	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr
Guizhou Panva Gas	4,200	4,200	4,200	4,200	4,200
Kunming	4,300	4,300	4,300	4,300	4,300
Yunnan Panva Gas	4,250	4,250	4,250	4,250	4,250
Jingmen Petrochemical (Road Delivery)	4,390	4,460	4,500	4,500	4,500
Jingmen Petrochemical (Railway Delivery)	4,390	4,460	4,500	4,500	4,500
Wuhan Petrochemical	4,530	4,600	4,620	4,620	4,620
Yueyang Petrochemical (Road Delivery)	4,706	4,826	4,856	4,856	4,856
Changling Refinery (Road Delivery)	4,706	4,826	4,826	4,826	4,826
Jiujiang Petrochemical	4,600	4,650	4,670	4,670	4,670
Anhui Anqing (Road Delivery)	4,550	4,600	4,600	4,600	4,600
Wuhu	4,550	4,600	4,600	4,600	4,600
Yangtze Petrochemical Panva Gas	4,380	4,380	4,380	4,380	4,430
Nanjing Refinery (Road Delivery)	4,360	4,360	4,360	4,360	4,410
Qingjiang Petrochemical	4,300	4,300	4,300	4,300	4,300
Taizhou Petrochemical	4,380	4,380	4,380	4,380	4,430
Yancheng Petrochemical	4,300	4,300	4,300	4,300	4,300
Yangzhou Petrochemical	4,380	4,380	4,380	4,380	4,430
Zhenhai BP (domestic Gas)	4,880	4,880	4,880	4,880	4,880
Zhenhai BP (Imported Gas)	4,880	4,880	4,880	4,880	4,880
Hangzhou Refinery	4,530	4,530	4,530	4,530	4,530
Shanghai Petrochemical	4,500	4,500	4,500	4,500	4,500
Shanghai Gaoqiao	4,200	4,250	4,250	4,300	4,300
Fujian Refinery (Road Delivery)	5,000	5,000	5,000	5,000	5,000
Donghua Unocal (High propane ratio)	5,800	5,800	5,800	5,800	5,800
Suzhou BP (High propane ratio)	5,800	5,800	5,800	5,800	5,800
Shanghai Jindi (Low propane ratio)	5,300	5,300	5,500	5,500	5,500
Shanghai Jindi (High propane ratio)	5,400	5,400	5,600	5,600	5,600
Jiangsu Zhongyou (domestic gas)	5,800	5,800	5,800	5,800	5,800
Jiangsu Zhongyou (imported gas)	5,800	5,800	5,800	5,800	5,800
Wenzhou Huadian	4,650	4,650	4,650	4,650	4,650
Wenzhou Huadian (High propane ratio)	5,250	5,250	5,250	5,250	5,250
Fujian Huaxing (Low propane ratio)	5,300	5,300	5,300	5,350	5,350
Jiangyin	/	/	/	/	/
Zhenjiang	4,410	4,410	4,410	4,410	4,460
Taizhou	4,430	4,430	4,430	4,430	4,480
Nantong	/	/	/	/	/
Wenzhou	4,750	4,750	4,750	4,750	4,750
Quanzhou	5,020	5,030	5,030	5,030	5,030
Fuzhou	5,030	5,030	5,030	5,030	5,030
Fuzhou BP	5,100	5,100	5,100	5,100	5,100

4. Domestic price for liquefied petroleum gas (LPG) (Mar 31-Apr 4, 2007) (continued)

Unit: Yuan/ton

LPG Producer	31-Mar	1-Apr	2-Apr	3-Apr	4-Apr
Fuzhou Guantou	5,050	5,050	5,050	5,050	5,050
Shenzhen Hua'an	5,600	5,600	5,600	5,600	5,600
Huizhou Longpeng	5,600	5,600	5,600	5,600	5,600
Guangzhou Huakai	5,600	5,600	5,600	5,550	5,500
Guangzhou Zhongsui Gas	4,980	5,030	5,080	5,080	5,180
Zhuhai BP	5,500	5,500	5,600	5,600	5,600
Zhuhai Xinhai	5,100	5,100	5,100	5,250	5,280
Yangjiang Haiyang	4,950	5,000	5,050	5,050	5,050
Maoming Petrochemical (Road Delivery)	4,900	4,960	5,000	5,000	5,050
Maoming Petrochemical (Railway Delivery)	4,850	4,910	4,950	4,950	4,950
Zhanjiang Dongxing	4,480	4,480	4,480	4,480	4,480
CNOOC Qinzhou	4,830	4,900	4,950	4,950	4,950
Guangxi Zhongyou	4,830	4,900	4,950	4,950	4,950
Guangxi Tiansheng	5,250	5,250	5,300	5,300	5,300
Qinzhou Guoxing	5,750	5,750	5,750	5,750	5,750
Qingzhou Dongyou	4,830	4,900	4,940	4,940	4,940
Hainan Shihua	/	/	/	/	/
Shantou Caltex	5,300	5,300	5,300	5,350	5,400
Chaozhou Huafeng	5,510	5,610	5,610	5,350	5,350
Shandou Longpeng	5,300	5,300	5,300	5,400	5,450
Shandou Deyuan	/	/	/	/	/
Shenzhen	5,470	5,470	5,470	5,470	5,420
Guangzhou	5,300	5,400	5,420	5,420	5,450
Zhuhai	5,100	5,250	5,250	5,250	5,250
Maoming	4,850	4,910	4,950	4,950	4,950
Zhanjiang	4,480	5,010	5,050	5,050	5,050
Guangxi	4,830	4,900	4,950	4,950	4,950
Chaozhou and Shantou (domestic)	4,950	5,050	5,050	5,100	5,150
Chaozhou and Shantou (imported)	5,200	5,250	5,250	5,300	5,350

Source: HC 360.

Table 6B.8.2. Wholesale Price for Fuels in Major Cities in April, 2008

1. Spot coal prices at Qinghuangdao Port on April 21 and April 28

Region	Coal type	Heat value (Kcal/KG)	Price type	Price (yuan/ton) on April 21	Price (yuan/ton) on April 28
Qinhuangdao Port, Hebei	Datong premium blend	6,000	FOB	635-645	640-655
Qinhuangdao Port, Hebei	Shanxi premium blend	5,500	FOB	590-600	595-605
Qinhuangdao Port, Hebei	General blend	4,000	FOB	400-410	400-410
Qinhuangdao Port, Hebei	Shanxi blend	5,000	FOB	520-530	525-535
Qinhuangdao Port, Hebei	General blend	4,500	FOB	460-470	465-475

Key: FP = Factory price, TR = Transportation, T = Tax, CP = Coalmine price

Source: China Coal Trade & Development Association

2. Diesel prices in China from April 24 to April 28, 2008 is in the range of:

RMB 20 per ton (\$2.86 USD per ton)~ RMB 50 (\$7.15USD per ton)

Source: HC 360.

3. Domestic price (yuan/ton) for liquefied petroleum gas

LPG Producer	Average	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	Change
Daqing Petrochemical Company (Road delivery)	5,040	5,040	5,040	5,040	5,040	#	0
Daqing Petrochemical Company (Railway delivery)	5,040	5,040	5,040	5,040	5,040	#	0
Daqing Refinery Company (Road delivery)	5,042	5,042	5,042	5,042	5,042	#	0
Daqing Refinery Company (Railway delivery)	5,257	5,042	5,042	5,400	5,400	#	0
Harbin Refinery (Road delivery)	5,040	5,040	5,040	5,040	5,040	#	0
Harbin Refinery (Railway delivery)	5,450	5,450	5,450	5,450	5,450	#	0
Daqing Fine Refinery	5,920	5,800	5,800	6,000	6,000	#	0
Yushutun Refinery (Road delivery)	3,550	3,550	3,550	3,550	3,550	#	0
Lamadian Refinery	5,708	5,600	5,600	5,780	5,780	#	0
Qianguo Refinery	5,042	5,042	5,042	5,042	5,042	#	0
Jihua Refinery	5,041	5,041	5,041	5,041	5,041	#	0
Shenyang Paraffin Plant	6,200	6,200	6,200	6,200	6,200	#	0
Fushun Oil No.2 Plant (Road delivery)	5,875	5,800	5,800	5,950	5,950	-	
Fushun Oil No.2 Plant (Railway delivery)	5,875	5,800	5,800	5,950	5,950	-	
Liaoyang Chemical Fiber	4,800	4,800	4,800	4,800	4,800	#	0
Jinzhou Petrochemical (Road delivery)	5,600	5,600	5,600	5,600	5,600	#	0
Jinxi Refinery	5,938	5,900	5,900	5,950	6,000	-	
Liaohu Oilfield Petrochemical	5,906	5,850	5,900	5,900	5,900	#	#
Liaoning Panjin Heyun Group	4,700	4,700	4,700	4,700	4,700	#	0
Dalian Petrochemical (Road delivery)	5,800	5,800	5,800	5,800	5,800	#	0
Dalian Petrochemical (Seaway delivery)	6,135	6,135	6,135	6,135	6,135	#	0
Dalian West Pacific (Road delivery)	6,050	6,050	6,050	6,050	6,050	#	0
Dalian West Pacific (Seaway delivery)	6,135	6,135	6,135	6,135	6,135	#	0
Dalian Jinggu	6,100	6,100	6,100	6,100	6,100	#	0
Inner Mongolia Hohhot Refinery	5,002	4,976	4,976	5,042	5,042	#	0
Yanshan Petrochemical	6,230	6,180	6,220	6,250	6,250	#	0
Tianjin Refinery	6,254	6,200	6,230	6,280	6,280	#	0
Dagang Petrochemical	6,100	6,100	6,100	6,100	6,100	#	0
Shijiazuan Refinery	6,256	6,220	6,220	6,270	6,270	#	#
Cangzhou Refinery	6,156	6,150	6,180	6,200	6,150	#	#
Huabei Petrochemical	6,178	6,140	6,170	6,200	-	#	
Zhongjie Refinery	6,112	6,100	6,100	6,130	6,130	#	#
Jinan Refinery	6,390	6,310	6,430	6,430	6,430	#	#
Qingdao Petrochemical	5,042	5,042	5,042	5,042	5,042	#	0
Gaomi Yonghui	-	-	-	-	-	-	
Qilu Petrochemical	5,040	5,040	5,040	5,040	5,040	-	
Shengli Heavy Oil Plant	5,042	5,042	5,042	5,042	5,042	#	0
Guangrao Petrochemical	6,228	6,220	6,220	6,250	6,250	#	#
Hengyuan Petrochemical	5,040	5,040	5,040	5,040	5,040	#	0
Shouguang Shuntai	6,200	6,200	6,200	6,200	6,200	#	0
Shida Shenghua Refinery	5,040	5,040	5,040	5,040	5,040	#	0
Dongying Boyuan	6,168	6,150	6,180	6,180	6,180	#	#
Kenli Petrochemical	-	-	-	-	-	-	
Lijin Petrochemical	6,210	6,150	6,150	6,250	6,250	#	0
Binzhou Petrochemical	-	-	-	-	-	-	
Changyi Petrochemical	5,042	5,042	5,042	5,042	5,042	#	0
Haike Petrochemical	7,900	7,700	7,700	7,900	8,100	#	0
Dawang Huaxing Petrochemical	6,250	6,250	6,250	6,250	6,250	#	0
Jingbo Petrochemical	5,040	5,040	5,040	5,040	5,040	#	0
Changcheng Petrochemical	-	-	-	-	-	-	
Jincheng Petrochemical	5,040	5,040	5,040	5,040	5,040	#	0
Dongming Petrochemical	6,360	6,330	6,360	6,360	6,400	#	#
Huifeng Petrochemical	5,040	5,040	5,040	5,040	5,040	#	0

Table 6B.8.2. Wholesale Price for Fuels in Major Cities in April, 2008 (continued)

3. Domestic price (yuan/ton) for liquefied petroleum gas (continued)

LPG Producer	Average	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	Change
Huifang Hongrun	7,880	7,700	7,700	7,900	8,050	#	0
Qifa Petrochemical	6,200	6,200	6,200	6,200	6,200	#	0
Luoyang Petrochemical (Road Delivery)	6,467	6,450	6,450	6,500	-	-	
Luoyang Petrochemical (Railway Delivery)	6,530	6,530	6,530	-	-	-	
Zhongyuan Oilfield	6,360	6,330	6,360	6,360	6,400	#	#
Nanyang Refinery	6,620	6,600	6,600	6,600	6,650	#	0
Weihai		-	-	-	-	-	
Yantai	6,300	6,300	6,300	6,300	6,300	#	0
Longkou		-	-	-	-	-	
Dushanzi Petrochemical (Road Delivery)	3,700	3,700	3,700	3,700	3,700	#	0
Dushanzi Petrochemical (Railway Delivery)	3,700	3,700	3,700	3,700	3,700	#	0
Tarim Oilfield (Railway Delivery)	4,300	4,300	4,300	4,300	4,300	#	0
Urumqi Petrochemical (Road Delivery)	4,930	4,850	4,950	4,950	4,950	#	0
Urumqi Petrochemical (Railway Delivery)	4,750	4,750	4,750	4,750	4,750	#	0
Tuha Oilfield (Road Delivery)	5,180	5,100	5,100	5,100	5,300	#	0
Tuha Oilfield (Railway Delivery)	4,690	4,650	4,650	4,650	4,750	#	0
Lanzhou Refinery (Road Delivery)	5,240	5,240	5,240	5,240	5,240	#	0
Lanzhou Refinery (Railway Delivery)	5,320	5,200	5,200	5,400	5,400	#	0
Yumen Refinery (Road Delivery)	5,140	5,140	5,140	5,140	5,140	#	0
Yumen Refinery (Railway Delivery)	4,950	4,950	4,950	4,950	4,950	#	0
Qinghai Oilfield (Road Delivery)	5,040	5,040	5,040	5,040	5,040	#	0
Qinghai Oilfield (Railway Delivery)	5,040	5,040	5,040	5,040	5,040	#	0
Changqing Petrochemical	5,040	5,040	5,040	5,040	5,040	#	0
Qingyang Petrochemical	5,500	5,500	5,500	5,500	5,500	#	0
Xi'an Petrochemical	5,041	5,041	5,041	5,041	5,041	#	0
Jingbian Refinery	6,600	6,600	6,600	6,600	6,600	#	0
Yongping Refinery	6,650	6,650	6,650	6,650	6,650	#	0
Yan'an Refinery	5,040	5,040	5,040	5,040	5,040	#	0
Yinchuan Refinery	5,042	5,042	5,042	5,042	5,042	#	0
Ningxia Baota Refinery	6,070	5,900	6,100	6,100	6,100	#	#
Nanchong Refinery	5,040	5,040	5,040	5,040	5,040	#	0
Chengdu	6,420	6,300	6,450	6,450	6,450	#	0
Chongqing	6,470	6,350	6,500	6,500	6,500	#	0
Guizhou	6,410	6,350	6,350	6,450	6,450	#	0
Kunming	6,360	6,300	6,300	6,400	6,400	#	0
Guizhou Panva Gas	6,410	6,350	6,350	6,450	6,450	#	0
Yunnan Panva Gas	6,360	6,300	6,300	6,400	6,400	#	0
Jingmen Petrochemical (Road Delivery)	6,580	6,500	6,500	6,620	6,620	#	#
Jingmen Petrochemical (Railway Delivery)	6,580	6,500	6,500	6,620	6,620	#	#
Wuhan Petrochemical	6,720	6,650	6,650	6,750	6,750	#	#
Yueyang Petrochemical (Road Delivery)	6,846	6,700	6,850	6,850	6,880	#	#
Changling Refinery (Road Delivery)	6,846	6,700	6,850	6,850	6,880	#	#
Jiujiang Petrochemical	6,738	6,630	6,730	6,730	6,780	#	0
Anhui Anqing (Road Delivery)	6,695	6,580	6,700	6,700	6,730	#	0
Wuhu	6,700	6,600	6,700	6,700	6,700	#	#
Yangtze Petrochemical Panva Gas	6,560	6,560	6,560	6,560	6,560	#	0
Nanjing Refinery (Road Delivery)	6,560	6,560	-	6,560	6,560	#	0
Qingjiang Petrochemical	6,380	6,300	6,400	6,400	6,400	#	0
Taizhou Petrochemical	6,380	6,310	6,310	6,460	6,410	#	0
Yancheng Petrochemical	5,800	5,800	5,800	5,800	5,800	#	0
Yangzhou Petrochemical	6,160	6,160	6,160	6,160	6,160	#	0
Zhenhai BP (domestic Gas)	6,800	6,800	6,800	6,800	6,800	#	0
Zhenhai BP (Imported Gas)	7,600	7,600	7,600	7,600	7,600	#	0
Hangzhou Refinery	6,620	6,600	6,600	6,600	6,600	#	#
Shanghai Petrochemical	6,560	6,400	6,600	6,600	6,600	#	0
Shanghai Gaoqiao	6,440	6,360	6,460	6,460	6,460	#	0
Fujian Refinery (Road Delivery)	6,874	6,800	6,800	6,870	6,950	#	0

Table 6B.8.2. Wholesale Price for Fuels in Major Cities in April, 2008 (continued)

3. Domestic price (yuan/ton) for liquefied petroleum gas (continued)

LPG Producer	Average	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	Change
Donghua Unocal (High propane ratio)	7,800	7,800	7,800	7,800	7,800	#	0
Suzhou BP (High propane ratio)	7,800	7,800	7,800	7,800	7,800	#	0
Jiangsu Zhongyou (domestic gas)	6,540	6,450	6,450	6,600	6,600	#	0
Jiangsu Zhongyou (imported gas)	8,100	8,100	8,100	8,100	8,100	#	0
Shanghai Jindi (Low propane ratio)	8,000	8,000	8,000	8,000	8,000	#	0
Shanghai Jindi (High propane ratio)	8,000	8,000	8,000	8,000	8,000	#	0
Wenzhou Huadian	6,800	6,800	6,800	6,800	6,800	#	0
Wenzhou Huadian (High propane ratio)	7,600	7,600	7,600	7,600	7,600	#	0
Haiyan Huadian	6,644	6,620	6,650	6,650	6,650	#	0
Fujian Huaxing (Low propane ratio)	7,200	7,200	7,200	7,200	7,200	#	0
Jiangyin	-	-	-	-	-	-	-
Zhenjiang	6,610	6,610	6,610	6,610	6,610	#	0
Taizhou	6,610	6,610	6,610	6,610	6,610	#	0
Nantong	-	-	-	-	-	-	-
Wenzhou	6,678	6,650	6,650	6,650	6,670	#	#
Quanzhou	6,912	6,850	6,850	6,900	6,980	#	0
Fuzhou	6,912	6,850	6,850	6,900	6,980	#	0
Fuzhou BP	7,000	7,000	7,000	7,000	7,000	#	0
Huadian Hengyuan	7,010	6,950	6,950	6,950	7,100	#	0
Huadian Weitou	6,960	6,900	6,900	6,900	7,050	#	0
Shenzhen Hua'an	7,640	7,500	7,600	7,700	7,700	#	0
Huizhou Longpeng	7,640	7,500	7,600	7,700	7,700	#	0
Guangzhou Zhongsui Gas	7,080	7,000	7,000	7,100	7,150	#	0
Guangzhou Huakai	7,640	7,500	7,600	7,700	7,700	#	0
Zhuhai BP	7,076	6,950	7,000	7,100	7,150	#	#
Zhuhai Xinhai	7,640	7,500	7,600	7,700	7,700	#	0
Zhuhai Xinhai	7,280	7,200	7,300	7,300	7,300	#	0
Zhuhai Coal Gas	7,500	7,500	7,500	7,500	7,500	#	0
Yangjiang Haiyang	7,150	7,000	7,050	7,150	7,250	#	#
Maoming Petrochemical (Road Delivery)	7,056	6,910	6,960	7,060	7,150	#	#
						#	#
Maoming Petrochemical (Railway Delivery)	7,006	6,860	6,910	7,010	7,100	#	#
Zhanjiang Dongxing	7,040	6,830	6,960	7,060	7,150	#	#
CNOOC Qinzhou	-	-	-	-	-	-	-
Guangxi Zhongyou	7,166	6,980	7,080	7,180	7,270	#	#
Guangxi Tiansheng	7,642	7,642	7,642	7,642	7,642	#	0
Qinzhou Guoxing	6,400	6,400	6,400	6,400	6,400	#	0
Qingzhou Dongyou	6,400	6,400	6,400	6,400	6,400	#	0
Hainan Shihua	-	-	-	-	-	-	-
Shantou Caltex	7,300	7,300	7,300	7,300	7,300	#	0
Chaozhou Huafeng	7,340	7,000	7,350	7,450	7,450	#	0
Shandou Longpeng	7,050	7,050	7,050	7,050	7,050	#	0
Shenzhen	7,590	7,450	7,550	7,650	7,650	#	0
Guangzhou (domestic)	7,076	6,950	7,000	7,100	7,150	#	#
Guangzhou (imported)	7,590	7,450	7,550	7,650	7,650	#	0
Zhuhai (domestic)	7,162	7,080	7,080	7,120	7,250	#	#
Zhuhai (imported)	7,450	7,300	7,300	7,550	7,550	#	0
Maoming	7,056	6,910	6,960	7,060	7,150	#	#
Zhanjiang	7,056	6,910	6,960	7,060	7,150	#	#
Guangxi	7,166	6,980	7,080	7,180	7,270	#	#
Chaozhou and Shantou (domestic)	6,990	6,900	7,000	7,000	7,000	#	#
Chaozhou and Shantou (imported)	7,150	7,000	7,150	7,200	7,200	#	0

Source: PEC 365

Table 6B.9. Retail Price for Gasoline in Selected Cities, 2004-2007

yuan/ton

	Beijing	Shenyang	Shanghai	Wuhan	Guangzhou	Chengdu	Xi'an
Jun-04	4,342	4,342	4,350	4,333	4,423	4,407	4,168
Jun-05	4,979	4,979	4,995	5,006	5,060	5,200	4,963
Jan-06	5,303	5,303	5,398	5,300	5,400	5,526	5,287
May-06	6,340	5,838	5,209	6,233	6,238	6,390	6,097
Jan-07	6,102	5,875	5,975	5,929	6,074	6,093	5,859
Jul-07	6,102	5,875	5,975	5,929	6,074	6,093	5,859

N.B. Data in 2004 are for 90 RON unleaded gasoline; 2005-2007 data are 90 RON high standard clean gasoline.

Source: International Petroleum Economics.

Table 6B.10. Average Coal Mine-Mouth Price of Main Coal Mines and Price of Steam Coal, 1997-2006

1. Average Coal Mine-Month Price of Main Coal Mines (1997-2006)
yuan/ton

Year	Average Price of Commercial Coal	Average Price of Coal used for Power Generation
1997	166.34	137.33
1998	160.20	133.27
1999	142.74	121.48
2000	140.19	120.93
2001	150.99	123.94
2002	167.39	137.97
2003	175.66	140.91
2004	206.43	162.51
2005	291.06	206.45
2006	301.55	216.18

Source: State Administration of Coal Mine Safety.

2. Price of Steam Coal in Selected Cities
yuan/ton

	Wuhai, Inner Mongolia	Beijing	Shanghai	Hangzhou	Wuhan	Guangzhou
May-00		300	266	330	210	280
May-06	130	395~415	510~590	570~590	400~430	480~490
Mar-07		395~420	570~587	530~550		530~540

N.B. Coal type is bituminous coal; coal from Wuhai is raw coal.

Source: Coal Information Research Institute.

Table 6B.11. Reference of Electricity Sales Price and Transmission & Distribution Price, 2006

yuan/kWh

Province	Sales Price	Transmission & Distribution Price
Beijing, Tianjin,		
Tangshan	525.32	156.18
Shanxi	408.63	123.47
Hebei	440.92	95.28
Shandong	478.48	90.59
Shanghai	649.60	196.76
Zhejiang	569.28	111.52
Jiangsu	590.13	160.75
Anhui	503.37	126.54
Fujian	490.13	113.65
Hubei	516.75	154.25
Henan	429.24	82.70
Hunan	496.41	149.60
Jiangxi	506.82	126.29
Sichuan	465.76	147.08
Chongqing	507.04	173.80
Shaanxi	420.74	123.80
Gansu	356.65	129.22
Qinghai	291.43	108.75
Ningxia	358.72	130.83
Xinjiang	417.13	193.58
Heilongjiang	482.22	160.78
Jilin	485.62	136.24
Liaoning	508.55	151.05
Guangdong	681.90	180.93
Guangxi	449.70	111.57
Yunnan	392.33	104.36
Guizhou	377.29	95.01
Hainan	615.23	215.44
West Inner		
Mongolia	352.61	97.68

N.B. Transmission & distribution price of Xinjiang only includes Urumuqi Grid.

N.B. Does not include transmission & distribution losses.

Source: NDRC.

Table 6B.12. Southern Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Guangdong	Huangpu Power Plant #5 and #6		
	Units	600	0.365
	Shaoguan #9 Units	200	0.404
	Yunfu Power Plant	250	0.404
	Shaoguan Power Plant	50	0.387
	Changtan Hydropower Plant	60	0.310
	Qingxi Hydropower Plant	144	0.340
	Nanshui Hydropower Plant	75	0.310
	Liuxi Hydropower Plant	42	0.310
	Changhu Hydropower Plant	72	0.310
	Xinfengjiang Hydropower Plant	293	0.310
	Fengshuba Hydropower Plant	15	0.310
Guangxi	Yantan Power Plant	120	1.131
	Mashi Power Plant	100	0.145
	Yizhou Power Plant	91	0.145
	Xijin Power Plant	234	0.145
	Dahua Power Plant	456	0.241
	Bailongtan Power Plant	192	0.241
	Pingban Hydropower Plant	135	0.260
	Letan Power Plant	150	0.260
	Tianhu Power Plant	30	0.271
	Caotouping Power Plant	28	0.271
	Jinchengjiang Power Plant	16	0.292
	Yemao Power Plant	38	0.304
	Guihang Power Plant	47	0.304
	Dapu Power Station	90	0.304
	Guihang Power Plant	120	0.304
	Jingnan Power Plant	69	0.333
	Laibin A Power Plant	270	0.313
	Heshan Power Plant	430	0.313
	Liuzhou Power Plant	400	0.346
	Hongyuan Power Plant	270	0.346
	Tiandong Power Plant	74	0.346
	Xing'an Power Plant	25	0.358
	Qinzhou Power Plant	18	0.358
	Shanglin Power Plant I	12	0.358
	Shanglin Power Plant II	12	0.358
	Heshan Power Plant Extension	600	0.354
	Beihai Power Plant	300	0.339
	Tiandong New Power Plant	270	0.339

Table 6B.12. Southern Power Grid On-Grid Price, 2005 (continued)

Yunnan	Yangzonghai Power Plant	400	0.271
	Qujing Power Plant #1 and #2		
	Units	600	0.273
	Qujing Power Plant #3 and #4		
	Units	600	0.240
	Xuanwei Power Plant #7 and #8		
	Units	600	0.271
	Xuanwei Power Plant #9 and #10		
	Units	600	0.240
	Kunming Power Plant	200	0.265
	Xujiansi Power Plant	100	0.315
	Xiaolongtan Power Plant	600	0.238
	Dianneng Mile Power Plant	135	0.216
	Manwan Power Plant	1,250	0.155
	Dachaoshan Power Plant	1,350	0.219
	Xucun Power Plant	86	0.204
	Lubuge Hydropower Plant	600	0.148
	Yilihe Power Plant	322	0.148
	X'erhe Power Plant	255	0.181
	Dazhai Power Plant	60	0.169
	Changlv Hydropower Plant	66	0.153
	Liuliangdong Power Plant	32	0.142
	Shilongba Power Plant	6	0.497
	Chaishitan Power Plant	60	0.191
	Laohushan Power Plant	38	0.191
	Luosiwan Power Plant	60	0.189
	Tianba Power Plant	105	0.272
	Xiangshui Power Plant	50	0.191
	Mazihe Power Plant	17	0.191
	Diqing Power Company		0.191
	Lijiang Power Company		0.191
	E'di Power Plant	4	0.197
	Nanguohe Power Plant	13	0.191
	Datan Power Plant	10	0.197
	Zhongzhai Power Plant	25	0.191
	Yanggongjiang Power Company	25	0.191
	Sanjiutian Power Plant	12	0.191
	A'jutian Power Plant	105	0.205
	Gaoqiao Power Plant	90	0.229
Guizhou	Guizhou Power Plant #9 Units	200	0.276
	Kali Power Plant	500	0.270
	Toubu Power Plant	24	0.270
	Qingzhen Power Plant	400	0.218
	Zunyi Power Plant	250	0.211
	Hongfeng Power Plant	269	0.242
	Anshun Power Plant I	600	0.244
	Panxian Power Plant I	600	0.218
	Puding Power Plant	84	0.248
	Shuicheng Power Plant	100	0.252

Source: Price Yearbook of China, 2006.

Table 6B.13. East China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Shanghai	Huaneng Shanghai Shidong Kou I	1,240	0.358
	Huaneng Shanghai Shidong Kou II	1,200	0.358
	Shanghai Electric Power Company_Minxing Power Plant	815	0.404
	Shanghai Electric Power Company_Wujing Thermal Power Plant	350	0.404
	Shanghai Electric Power Company_Nanshi Power Plant	145	0.404
	Shanghai Electric Power Company_Yangpu Power Plant	359	0.404
	Xinhai Power Plant	440	0.338
	Yangzhou Power Plant	440	0.348
	Nanjing Thermal Power Plant	355	0.337
Jiangsu	Changshu Power Plant	1,200	0.356
	Huaneng Nanjing Power Plant	640	0.356
	Huaneng Nantong Power Plant	1,404	0.356
	Tianshenggang Power Plant	540	0.371
	Xishuyan Power Plant	440	0.362
	Jianbi Power Plant	1,600	0.329
	Xuzhou Power Plant	1,300	0.314
	Shanghai Huadian Electric Company	620	0.380
	Shitang Hydropower Plant	78	0.427
	Wuxijiang Hydropower Plant	300	0.360
Zhejiang	Jiangxia Tidal Power Station	3	2.380
	Hangzhou Banshan Power Generation Company	365	0.404
	Huaneng Changxing Power Plant	260	0.404
	Wenzhou Power Generation Company	260	0.404
	Anhui Electric Power Company	815	0.336
Anhui	Huainan Pingyu Power Generation Company	1,200	0.319
	Anqing Petrochemical Company	200	0.300
	Huaibei Xingli Power Generation Company	220	0.358
	Wanxiong Company	625	0.391
	Hefei Heli Electric Company	125	0.371
	Guichi Power Plant	50	0.386
	Datang Huaibei Power Plant	715	0.253
	Datang Huaiyin Luohe Power Plant	640	0.253
	Datang Chencun Hydropower Plant	194	0.205

Table 6B.13. East China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Fujian	Shaowu Power Plant	250	0.410
	Zhangping Power Generation Company	200	0.410
	Shaxikou Hydropower Plant	300	0.165
	Chitan Hydropower Plant	100	0.155
	Ansha Hydropower Plant	115	0.155
	Chuanchangxi Hydropower Plant	25	0.285
	Hua'an Hydropower Plant	60	0.155
	Gutianxi Hydropower Plant	146	0.205
	Xiamen Thermal Power Plant	50	0.500
	Yong'an Thermal Power Plant	200	0.410
	Zhangping Thermal Power Plant	200	0.410

Source: Price Yearbook of China, 2006.

Table 6B.14. Northeast China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Liaoning	Dongdian Shenyang Thermal Power Company	50	0.416
	Shenyang Shenhai Thermal Power Company	400	0.333
	Liaoning Eastern Power Company	700	0.333
	Liaoning Power Plant	200	0.347
	Fuxin Power Plant #7 Unit	100	0.309
Jilin	Changchun Thermal Power Company II	400	0.288
	Jilin Xinli Thermal Power Company	250	0.324
	Liaoyuan Thermal Power Company	200	0.324
	Jilin Thermal Power Company #8 and #9 Units	250	0.324
	Jilin Thermal Power Company #10 and #11 Units	400	0.288
	Changchun Thermal Power Company I, #1 Factory	50	0.409
	Liaoyuan Longshan Thermal Power Company	12	0.409
	Shuangliao Shuangxing Thermal Power Units	12	0.409
	Changchun Gaoxin Thermal Power Plant	24	0.339
	Jilin Longhua Thermal Power Company	271	0.283
	Guodian Jilin Thermal Power Plant #6 and #7 Units	100	0.318
	Datang Jixi Thermal Power Company	250	0.338
	Huadian Harbin Thermal Power Plant	300	0.310
Heilongjiang	Guodian Bei'an Power Plant	100	0.486
	Huadian Harbin Power Plant	87	0.310
	Datang Jiamusi Power Plant Ii, #1 and #2 Units	100	0.413
	Datang Jixi Power Plant	50	0.499

Source: Price Yearbook of China, 2006.

Table 6B.15. Central China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Hubei	Hubei Hanyuan Power Generation Company	600	0.323
	Wuhan Huazhong Huaneng Power Generation Company	1,200	0.362
	Hubei Huangshi Power Generation Company	330	0.366
	Guodian Jingmen Power Plant	400	0.289
	Huadian Qingshan Power Plant	162	0.380
	Guodian Jiangshang Power Generation Company	200	0.334
	Hanjiang Wangpuzhou Power Station	109	0.415
	Qingjiang Gaobazhou Power Station	252	0.415
	Lushui Power Plant	50	0.232
	Yian Dongping Power Plant	110	0.367
Hunan	Zhuzhou Huayin Thermal Power Plant #1 and #2 Units	250	0.369
	Hunan Huayin_Jinzhushan Power Generation Company	600	0.369
	Datang Leiyang Power Plant #1 and #2 Units	400	0.327
	Hunan Mayitang Hydropower Plant	54	0.270
	Hunan Liyujiang Power Plant	130	0.378
Henan	Shouyangshan Power Plant #1-4 Units	1,000	0.333
	Henan Yuneng Company	440	0.318
	Pingdingshan Mengyu Power Plant	1,210	0.291
	Kaifeng Thermal Power Plant	270	0.291
	Anyang Power Plant	250	0.291
	Nanyang Huilong Pumped Storage Power Station	120	0.650
	Sanmenxia Hydropower Station #1-5 Units	260	0.195
	Sanmenxia Hydropower Station #6-7 Units	150	0.277
Jiangxi	Jiangxi Fengcheng Power Generation Company	1,200	0.365
	Jiangxi Ganneng Pingxiang Power Plant	250	0.390
	Jinagxi Xinyu Power Generation Company	400	0.390
	Jinggangshan Huaneng Power Generation Company	600	0.365
	Jiangxi Jiuijiang Power Generation Company III	700	0.357
	Jiangxi Jingdezhen Power Generation Company	350	0.370
	Jiangxi Fenyi Power Plant	100	0.470
	Jiangxi Zhelin Hydropower Company	420	0.363
	Jiangxi Dongjin Power Generation Company	60	0.530
	Baozishi Power Generation Company	40	0.420
	Jiangxi Sanhe Hongmen Hydropower Plant	42	0.350
	Jiangxi Shanhe Shangyoujiang Hydropower Plant	60	0.330
	Jiangxi Jiuijiang Power Plant	650	0.320
	Jiangxi Nanchang Power Plant	300	0.338
	Jiangxi Guixi Power Plant	500	0.320
	Jiangxi Wan'an Hydropower Plant	400	0.265
	Jiangxi Jiangkou Hydropower Plant	35	0.340
	Jiangxi Luowan Hydropower Plant	18	0.390
Sichuan	Sichuan Electric Company_Nanyahe Power Plant	720	0.210
	Baozhusi Hydropower Plant	700	0.490
	Shuidian Sichuan Yinghui Gas Power Generation Company	112	0.591
	Huaneng Chengdu Power Plant	200	0.290
	Guodian Huayingshan Power Plant	315	0.306
	Guodian Chengdu Thermal Power Plant	100	0.403
	Guodian Minjiang Power Plant	4	0.258
	Huadian Panzhihua Power Generation Company	200	0.328
	Huadian Mofanggou Power Plant	38	0.274
	Chongqing Baihe Electric Company	300	0.329
	Baihe Power Plant	100	0.331
	Shizitan Power Plant	132	0.219

Source: Price Yearbook of China, 2006.

Table 6B.16. North China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)	Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Beijing	Hudian (Beijing) Thermal Power Plant	200	0.480	Shandong	Hudian Zouxian Power Plant #1-6 Units	2,540	0.354
	Beijing Huadian Hydropower Plant	52	0.364		Hudaian Shiliquan Power Plant #1-7 Units	1,240	0.354
Tianjin	Shuanggang Garbage Power Plant		0.500		Hudian Laicheng #1 Unit	300	0.354
	Tianjin Binhai Gas Power Plant	56	0.430		Hudian Laicheng #2-4 Units	900	0.354
	Tianjin Thermal Power Plant I	212	0.387		Hudian Nanding Power Plant #1 and #2 Units	177	0.420
					Hudian Nanding Power Plant #3 and #4 Units	270	0.360
Hebei	Dagang Power Plant	1,280	0.351		Hudian Huadao Power Plant I, #1 and #2 Units	250	0.310
	Junliangcheng Power Plant	900	0.301		Hudian Qingdao Power Plant	660	0.439
	Hebei Beiwang Luanhe Power Plant #5 Unit	50	0.385		Hudian Weifang Power Plant	600	0.376
	Tangshan Power Plant	135	0.365		Hudian Zhangqiu Power Plant	270	0.345
					Hudian Tengzhou Power Plant #1 Unit	33	0.391
	Chengde Hongsong Wind Power II	50	0.550		Hudian Tengzhou Power Plant #2 and #3 Units	270	0.345
	150 Power Plant	200	0.292		Huaneng Dezhou Power Plant #1-6 Units	2,520	0.356
	Weishui Power Plant	100	0.308		Huaneng Jining Power Plant #1-4 Units	325	0.310
	Baoding Thermal Power Plant	160	0.313		Huaneng Jining Power Plant #5-6 Units	270	0.360
	Handan Thermal Power Plant	50	0.400		Huaneng Xindian Power Plant #3-4 Units	400	0.345
	Matou Power Plant	840	0.214		Huaneng Baiyanghe Power Plant #1-3 Units	150	0.503
					Huaneng Baiyanghe Power Plant #4-5 Units	270	0.360
	Hudian Shijiazhuang Hydropower Plant, Gangnan #1-3 Units	41	0.280		Huaneng Weihai Power Plant #1-4 Units	850	0.400
	Xingtai Power Plant	132	0.254		Huaneng Rizhao Power Plant	700	0.396
	Xibaipo Power Generation Company	1,200	0.317		CLP Shiheng Power Plant #1-4 Units	1,200	0.410
	Jizhou Power Plant	48	0.351		CLP Heze Power Plant II	600	0.379
	Chengfeng Thermal Power Plant	48	0.386		CLP Liaocheng Power Plant	1,200	0.379
	Guohua Dingzhou Power Plant	120	0.307		Luneng Laiwu Power Plant #1-3 Units	375	0.320
	Huaneng Handan Power Generation Company	1,320	0.389		Luneng Huangtai Power Plant #1-4 Units	125	0.310
	Handan Thermal Power Company	400	0.357		Luneng Huangtai Power Plant #5-6 Units	200	0.310
	Hengfeng Power Generation Company	600	0.369		Luneng Huangtai Power Plant #7 Unit	300	0.325
	Huaneng Shang'an Power Plant	1,300	0.341		Luneng Huangtai Power Plant #8 Unit	300	0.325
	Lingda Garbage Power Plant	24	0.457		Luneng Yantai Power Plant #1-2 Units	110	0.371
Shanxi	Shentou Power Plant I	1,200	0.195		Luneng Yantai Huanghai Power Plant	110	0.400
	Niangziguan Power Plant	400	0.213		Luneng Yantai Bohai Power Plant	110	0.464
	Yongji Thermal Power Plant	100	0.340		Luneng Yantai Yunhe Power Plant #1 Unit	135	0.383
	Houma Power Plant	50	0.316		Luneng Yantai Yunhe Power Plant #2 Unit	135	0.345
	Bagong Power Plant	25	0.399		Luneng Yantai Yunhe Power Plant #3-4 Units	270	0.360
	Taiyuan Power Plant I, #11 Unit	300	0.246		Luneng Liaocheng Power Plant #1-2 Units	100	0.320
	Taiyuan Power Plant I, #12 Unit	300	0.260		Luneng Liaocheng Power Plant #3-4 Units	200	0.388
	Huozhou Power Plant	400	0.221		Luneng Liaocheng Power Plant #5-6 Units	270	0.345
	Taiyuan Power Plant II, #2, #7, #8 Units	425	0.256		Luneng Linxi Power Plant #1-4 Units	362	0.386
	Taiyuan Power Plant II, #4-6 Units	150	0.270	West Inner Mongolia	Luneng Linxi Power Plant #5-6 Units	270	0.345
	Taiyuan Power Plant II, #9 Unit	200	0.260		Luneng Zhanhua Power Plant #1-2 Units	270	0.345
	Zhangze Electric Power_Zhangze Power Plant	1,040	0.230		Bainian Longkou Power Plant	1,100	0.381
	Zhangze Electric Power_Hejin Power Plant	700	0.245		Huangdao Power Plant II, #3-4 Units	420	0.389
	Datong Thermal Power Plant	100	0.246		Heze Power Plant #1-2 Units	250	0.400
	Taiyuan Power Plant I, #13 Unit	300	0.285		Liyan Power Plant I, #1-2 Units	112	0.424
	Taiyuan Power Plant I, #14-15 Units	325	0.255		Liyan Power Plant, #3 Unit	135	0.373
	Tianqiao Hydropower Station	128	0.160		Liyan Power Plant, #4 Unit	135	0.345
	Datong Yungang Thermal Power Company	440	0.247		Liyan Power Plant, #5-6 Units	270	0.360
	Huaneng Yushe Power Plant	200	0.308		Wusuotun Power Plant, #1 Unit	55	0.393
	Yangguang Power Generation Company #1 Unit	300	0.314		Wusuotun Power Plant, #2 Unit	66	0.345
	Yangguang Power Generation Company #2-3 Units	600	0.275		Zibo Thermal Power Group	218	0.384
	Yangguang Power Generation Company #4 Unit	300	0.240	West Inner Mongolia	Baotou Power Plant I	424	0.225
	Wanjiazhai Shuniu Power Generation Company #4 Unit	180	0.380		Baotou Power Plant II	425	0.225
	Wanjiazhai Shuniu Power Generation Company #5-6 Units	360	0.380		Wulashan Power Plant	200	0.225
	Hepo Power Plant #1-2 Units	100	0.261		Baotou Donghe Thermal Power Company	24	0.418
	Hepo Power Plant 2x10 Units	200	0.249		Kelin Thermal Power Company	174	0.314
	Liulin Power Plant	200	0.354				
	Jintian Power Generation Company (Houma Xintou)	100	0.244				
	New Energy Yongji #2 Unit	100	0.239				
	Yong Power Plant #5 Unit	50	0.245				
	Lingshi Tianshi Power Plant	50	0.297				
	Tengda Power Station	50	0.216				
	Guangda Power Station	50	0.235				
	Hequ Power Plant	1,200	0.235				
	Jinyang Power Generation Company	50	0.230				
	Huaneng Yushe Power Plant II	600	0.259				
	Pingshuo Power Plant	100	0.259				
	Zhaoguang Power Plant	600	0.259				
	Shanxi Zhangshan Power Generation Company	600	0.259				

Source: Price Yearbook of China, 2006.

Table 6B.17. West China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Ningxia	Daba Power Plant	1,200	0.213
	Guodian Shizuishan Power Generation Company	1,320	0.233
	Yinglite Dawukou Power Plant #3-4 Units	20	0.235
	Yinglite Shizuishan Power Plant #5-6 Units	50	0.258
	Zhongning Power Plant	50	0.258
	Guodian Dawukou Power Plant	420	0.215
	Guodian Shizuishan Power Plant	100	0.339
	Xinyuan Company	12	0.303
	Yinchuan Thermal Power Plant	74	0.399
	Shapotou Hydropower Plant	120	0.293
	China Power Investment Qingtongxia Power Plant	272	0.155
	Zhongning Power Plant Extension	600	0.233
	Helanshan Wind Power	37	0.530
Qinghai	Longyangxia Hydropower Plant	1,280	0.145
	Zhiganglaka Hydropower Plant	190	0.260

Source: Price Yearbook of China, 2006.

Table 6B.18. Northwest China Power Grid On-Grid Price, 2005

Province	Power Plant	Installed Capacity (MW)	On-Grid Price (including tax) (yuan/kWh)
Shaaxi	Datang Shaanxi Power Generation Company	704	0.281
	Qinling Power Plant	1,050	0.274
	Baoji Power Plant II	1,200	0.271
	Pucheng Power Generation Company	1,320	0.276
	Guohua Shenmu Power Plant	200	0.295
	Xinli Power Generation Company	110	0.285
	Lueyang Power Plant	100	0.285
	Xijiao Thermal Power Plant	100	0.295
	Baqiao Thermal Power Plant	200	0.295
	Baqiao Power Generation Units	20	0.220
	Luxian Power Plant	100	0.220
	Local Small Thermal Power Plant	363	0.275
	Baoyuan Company	100	0.251
	Daliuta Thermal Power Plant	30	0.255
Gansu	Guodian Lanzhou Thermal Power Plant	220	0.230
	Datang Gansu Lanxi Thermal Power Plant	310	0.278
	Datang Lanzhou Xigu Thermal Power Plant	200	0.280
	Yongchang Power Generation Company	200	0.277
	Datang Liancheng Power Plant	200	0.196
	Datang 803 Power Plant	50	0.484
	Datang Gansu Power Plant	24	0.535
	Datang Bikou Power Plant	300	0.146
	China Power Investment Yanguoxia Hydropower Plant	350	0.101
	China Power Investment Bapanxia Hydropower Plant	180	0.101
Xinjiang	Tianshan Electric Company	630	0.193
	Guodian Xinjiang Hongyanchi Power Generation Company	420	0.219
	Huadian Xinjiang Weihuliang Power Generation Company	250	0.245

Source: Price Yearbook of China, 2006.

Table 6B.19. Reference Price of Ex-Factory Natural Gas ^[1], 2005

(yuan/1,000 m³)

Dec. 26, 2005 ^[2]

Natural Gas Field	Categories of Natural Gas	Ex-factory Reference Price
Chuanyu Gas Field	For Fertilizer	690
	For Industry	875
	For Urban usage	920
Changqing Gas Field	For Fertilizer	710
	For Industry	725
	For Urban usage	770
Qinghai Gas Field	For Fertilizer	660
	For Industry	660
	For Urban usage	660
Xinjiang Gas Fields ^[3]	For Fertilizer	560
	For Industry	585
	For Urban usage	560
Other Gas Fields	For Fertilizer	660
	For Industry	920
	For Urban usage	830

[1] Only include First Category Natural Gas Fields. Their prices can increase or decrease 10% based on the benchmarking prices. Other natural gas fields in China are in the second category. Their prices can increase up to 10%, and no limite to decrease.

[2] The price starts from Dec.26, 2005.

[3] All the gas fields in Xinjiang, except West-East Gas Pipelines, are in the first category.

Source: Price Yearbook of China, 2006.

Table 6B.20. Ex-Factory Price of Aviation Kerosene, 2005-2008

yuan/ton

Mar. 15, 2005

Fuel	Ex-factory Price
#1 Jet Fuel	4040
#2 Jet Fuel	4040
#3 Jet Fuel	4140
#4 Jet Fuel	3970
High-gravity Jet Fuel	4490
High-flash Jet Fuel	4330
Navy Multi-purpose Fule	4220

Source: Price Yearbook of China, 2006.

Jun. 25, 2005

Fuel	Ex-factory Price
#1 Jet Fuel	4330
#2 Jet Fuel	4330
#3 Jet Fuel	4440
#4 Jet Fuel	4260
High-gravity Jet Fuel	4820
High-flash Jet Fuel	4640
Navy Multi-purpose Fule	4530

Source: Price Yearbook of China, 2006.

Jul. 23, 2005

Fuel	Ex-factory Price
#1 Jet Fuel	4620
#2 Jet Fuel	4620
#3 Jet Fuel	4740
#4 Jet Fuel	4550
High-gravity Jet Fuel	5140
High-flash Jet Fuel	4950
Navy Multi-purpose Fule	4830

Source: NDRC.

Mar. 26, 2006

Fuel	Ex-factory Price
#1 Jet Fuel	4910
#2 Jet Fuel	4910
#3 Jet Fuel	5040
#4 Jet Fuel	4840
High-gravity Jet Fuel	5470
High-flash Jet Fuel	5270
Navy Multi-purpose Fule	5140

Source: NDRC.

May. 24, 2006

Fuel	Ex-factory Price
#1 Jet Fuel	5400
#2 Jet Fuel	5400
#3 Jet Fuel	5540
#4 Jet Fuel	5320
High-gravity Jet Fuel	6010
High-flash Jet Fuel	5790
Navy Multi-purpose Fule	5650

Source: NDRC.

Jan. 14, 2007

Fuel	Ex-factory Price
#1 Jet Fuel	5310
#2 Jet Fuel	5310
#3 Jet Fuel	5450
#4 Jet Fuel	5230
High-gravity Jet Fuel	5910
High-flash Jet Fuel	5700
Navy Multi-purpose Fule	5560

Source: NDRC.

Jun. 20, 2008

Fuel	Ex-factory Price
#1 Jet Fuel	7260
#2 Jet Fuel	7260
#3 Jet Fuel	7450
#4 Jet Fuel	7150
High-gravity Jet Fuel	8080
High-flash Jet Fuel	7790
Navy Multi-purpose Fule	7600

Source: NDRC.

Table 6B.21. Reference Price of Ex-Refinery Oil Products, 2005-2008

yuan/ton

	3/23/2005	5/10/2005	5/23/2005	6/25/2005	6/25/2005	7/23/2005	7/23/2005	3/26/2006	3/26/2006	5/24/2006	5/24/2006	1/14/2007
Province/City	90# High Standard Clean Gasoline	0# Diesel	90# High Standard Clean Gasoline	0# Diesel	90# High Standard Clean Gasoline	0# Diesel	90# High Standard Clean Gasoline	0# Diesel	90# High Standard Clean Gasoline	0# Diesel	90# High Standard Clean Gasoline	90# High Standard Clean Gasoline
Unified Provincial Price												
Beijing	4,560	3,925	4,410	4,075	4,610	4,325	4,910	4,665	5,370	5,165	5,870	5,650
Tianjin	4,560	3,925	4,410	4,075	4,610	4,325	4,910	4,475	5,160	4,975	5,660	5,440
Hebei	4,560	3,925	4,410	4,075	4,610	4,325	4,910	4,475	5,160	4,975	5,660	5,440
Shanxi	4,625	3,980	4,475	4,130	4,675	4,380	4,975	4,530	5,225	5,030	5,725	5,505
Liaoning	4,560	3,925	4,410	4,075	4,610	4,325	4,910	4,475	5,160	4,975	5,660	5,440
Jilin	4,560	3,925	4,410	4,075	4,610	4,325	4,910	4,475	5,160	4,975	5,660	5,440
Heilongjiang	4,560	3,925	4,410	4,075	4,610	4,325	4,910	4,475	5,160	4,975	5,660	5,440
Shanghai	4,575	3,930	4,425	4,080	4,625	4,330	4,925	4,480	5,175	4,980	5,675	5,455
Shandong	4,570	3,935	4,420	4,085	4,620	4,335	4,920	4,485	5,170	4,985	5,670	5,450
Hubei	4,585	3,950	4,435	4,100	4,635	4,350	4,935	4,500	5,185	5,000	5,685	5,465
Henan	4,580	3,945	4,430	4,095	4,630	4,345	4,930	4,495	5,180	4,995	5,680	5,460
Hainan	4,695	4,050	4,545	4,200	4,745	4,450	5,045	4,600	5,295	5,100	5,795	5,575
Guangdong	4,635	3,990	4,485	4,140	4,685	4,390	4,985	4,540	5,235	5,040	5,735	5,515
Guangxi	4,695	4,050	4,545	4,200	4,745	4,450	5,045	4,600	5,295	5,100	5,795	5,575
Ningxia	4,565	3,925	4,415	4,075	4,615	4,325	4,915	4,475	5,165	4,975	5,665	5,445
Gansu	4,545	3,945	4,395	4,095	4,595	4,345	4,895	4,495	5,145	4,995	5,645	5,425
Xinjiang	4,355	3,830	4,205	3,980	4,405	4,230	4,705	4,380	4,955	4,880	5,455	5,235
Non-unified Provincial Price												
Hohhot	4,575	3,940	4,425	4,090	4,625	4,340	4,925	4,490	5,175	4,990	5,675	5,455
Nanjing	4,545	3,915	4,395	4,065	4,595	4,315	4,895	4,465	5,145	4,965	5,645	5,425
Hangzhou	4,575	3,940	4,425	4,090	4,625	4,340	4,925	4,490	5,175	4,990	5,675	5,455
Hefei	4,580	3,945	4,430	4,095	4,630	4,345	4,930	4,495	5,180	4,995	5,680	5,460
Fuzhou	4,610	3,970	4,460	4,120	4,660	4,370	4,960	4,520	5,210	5,020	5,710	5,490
Nanchang	4,580	3,945	4,430	4,095	4,630	4,345	4,930	4,495	5,180	4,995	5,680	5,460
Changsha	4,575	3,960	4,425	4,110	4,625	4,360	4,925	4,510	5,175	5,010	5,675	5,455
Chengdu	4,765	4,145	4,615	4,295	4,815	4,545	5,115	4,695	5,365	5,195	5,865	5,645
Chongqing	4,750	4,110	4,600	4,260	4,800	4,510	5,100	4,660	5,350	5,160	5,850	5,630
Guiyang	4,725	4,075	4,575	4,225	4,775	4,475	5,075	4,625	5,325	5,125	5,825	5,605
Kunming	4,755	4,105	4,605	4,255	4,805	4,505	5,105	4,655	5,355	5,155	5,855	5,635
Xi'an	4,545	3,935	4,395	4,085	4,595	4,335	4,895	4,485	5,145	4,985	5,645	5,425
Xining	4,515	3,955	4,365	4,105	4,565	4,355	4,865	4,505	5,115	5,005	5,615	5,395

Source: Price Yearbook of China, 2006; NDRC.

yuan/ton

	3/26/2006	3/26/2006	5/24/2006	5/24/2006	6/20/2008	6/20/2008
Products	Ex-Factory Price Before Adjustment	Ex-Factory Price After adjustment	Ex-Factory Price Before Adjustment	Ex-Factory Price After adjustment	Ex-Factory Price Before Adjustment	Ex-Factory Price After adjustment
Military 90# Gasoline (Standard)	4,400	4,700	4,700	5,200	5,480	6,480
Military 0# Diesel (Standard)	3,870	4,070	4,070	4,570	5,070	6,070
Military Lighting Kerosene	3,890	4,090	4,090	4,590	5,100	6,100
Navy Fuel	2,790	2,930	2,930	3,290	3,650	4,370
Aviation Gasoline (Standard)	4,530	4,840	4,840	5,350	5,640	6,670

Source: NDRC.

Table 6B.21. Reference Price of Ex-Refinery Oil Products, 2005-2008

	6/20/2008	6/20/2008	6/20/2008
Province/City	0# Diesel	90# Gasoline (II)	90# Gasoline (III)
Unified Provincial Price			
Beijing	6,665		7,150
Tianjin	6,475	6,940	
Hebei	6,475	6,940	
Shanxi	6,530	7,005	
Liaoning	6,475	6,940	
Jilin	6,475	6,940	
Heilongjiang	6,475	6,940	
Shanghai	6,480	6,955	
Shandong	6,485	6,950	
Hubei	6,500	6,965	
Hunan	6,555	7,000	
Henan	6,495	6,960	
Hainan	6,600	7,075	
Guangdong	6,540	7,015	7,225
Guangxi	6,600	7,075	
Ningxia	6,475	6,945	
Gansu	6,495	6,925	
Xinjiang	6,380	6,735	
Non-unified Provincial Price			
Hohhot	6,490	6,955	
Nanjing	6,480	6,955	
Hangzhou	6,490	6,955	
Hefei	6,495	6,960	
Fuzhou	6,520	6,990	
Nanchang	6,495	6,960	
Chengdu	6,695	7,145	
Chongqing	6,660	7,130	
Guiyang	6,625	7,105	
Kunming	6,655	7,135	
Xi'an	6,485	6,925	
Xining	6,505	6,895	

Source: Price Yearbook of China, 2006; NDRC.

Table 6B.22. North China Electricity Price, July 2008

1. Beijing

Retail Price, yuan/kWh

End-users	<1kV	1-10 kV	35kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4883	0.4783	0.4783	0.4783	0.4783		
Non-residential usage (lighting only)	0.7785	0.7685	0.7585	0.7485	0.7385		
Commercial usage	0.7885	0.7785	0.7685	0.7585	0.7485		
Non-industrial usage	0.7385	0.7235	0.7085	0.6985	0.6885		
General industrial usage	0.7565	0.7415	0.7265	0.7165	0.7065		
Large industrial usage		0.5995	0.5795	0.5595	0.5445	32.00	21.00
Electricity usage for calcium carbide, electrolysis of caustic soda and furnace phosphorus		0.5895	0.5695	0.5495	0.5345	32.00	21.00
Electricity usage for small-medium fertilizer production		0.3250	0.3170	0.3110	0.3060	18.00	12.00
Agricultural production usage	0.5160	0.5060	0.4960				

Wholesale Price, yuan/kWh

End-users	1-10kV	≥35kV
Residential usage	0.3793	0.3793
Non-residential usage (lighting only)	0.6355	0.6255
Commercial usage	0.6435	0.6335
Non-industrial usage & General industrial usage	0.6185	0.6035
Agricultural production usage	0.4230	0.4130
Electricity usage for drainage and irrigation in poor rural areas	0.2580	0.2530

Price for Small-Medium Size Fertilizer Production, yuan/kWh

	Voltage	Peak Period	Normal Period	Valley Period	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Unified price	<1kV	0.6470	0.4300	0.2260		
	1-10kV	0.6430	0.4240	0.2190		
	≥35kV	0.6340	0.4160	0.2120		
Non-unified price	1-10kV	0.4380	0.3250	0.2220	18.00	12.00
	35kV	0.4290	0.3170	0.2150	18.00	12.00
	110kV	0.4220	0.3110	0.2090	18.00	12.00
	220kV	0.4150	0.3060	0.2090	18.00	12.00
Ammonia Production usage	1-10kV	0.4240	0.3190	0.2220	18.00	12.00
	35kV	0.4150	0.3110	0.2150	18.00	12.00
	110kV	0.4080	0.3040	0.2090	18.00	12.00
	220kV	0.4080	0.3040	0.2090	18.00	12.00

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

1. Beijing (continued)

Sales Price (Non-Summer Time), yuan/kWh

End-users	Voltage	Peak Period	Normal Period	Valley Period
Large industrial usage				
Non-preferential industries	1-10kV	0.8099	0.5995	0.4031
	35kV	0.7869	0.5795	0.3871
	110kV	0.7659	0.5595	0.3671
	≥220kV	0.7479	0.5445	0.3541
Preferential industries	1-10kV	0.7889	0.5895	0.4031
	35kV	0.7659	0.5695	0.3871
	110kV	0.7449	0.5495	0.3671
	≥220kV	0.7269	0.5345	0.3541
General industrial usage				
	<1kV	1.1301	0.7565	0.4039
	1-10kV	1.1151	0.7415	0.3879
	35kV	1.0991	0.7265	0.3729
	110kV	1.0891	0.7165	0.3629
	≥220kV	1.0791	0.7065	0.3529
Non-industrial usage				
	<1kV	1.1115	0.7385	0.3865
	1-10kV	1.0965	0.7235	0.3705
	35kV	1.0805	0.7085	0.3555
	110kV	1.0705	0.6985	0.3455
	≥220kV	1.0605	0.6885	0.3355
Commerical usage				
	<1kV	1.1865	0.7885	0.4135
	1-10kV	1.1745	0.7785	0.4045
	35kV	1.1635	0.7685	0.3945
	110kV	1.1535	0.7585	0.3845
	≥220kV	1.1435	0.7485	0.3745
Non-residential usage (lighting only)				
	<1kV	1.1705	0.7785	0.4095
	1-10kV	1.1585	0.7685	0.4005
	35kV	1.1475	0.7585	0.3905
	110kV	1.1375	0.7485	0.3805
	≥220kV	1.1275	0.7385	0.3705
Agricultural production usage				
	<1kV	0.7430	0.5160	0.3050
	1-10kV	0.7330	0.5060	0.2940
	≥35kV	0.7220	0.4960	0.2860

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

1. Beijing

Sales Price (Summer Time), yuan/kWh

End-users	Voltage	Peak Period	Normal Period	Valley Period
Large industrial usage				
Non-preferential industries	1-10kV	0.8099	0.6495	0.3491
	35kV	0.7869	0.6275	0.3351
	110kV	0.7659	0.6065	0.3171
	≥220kV	0.7479	0.5905	0.3051
Preferential industries	1-10kV	0.7889	0.6385	0.3491
	35kV	0.7659	0.6165	0.3351
	110kV	0.7449	0.5955	0.3171
	≥220kV	0.7269	0.5795	0.3051
General industrial usage				
	<1kV	1.1301	0.7885	0.3499
	1-10kV	1.1151	0.7735	0.3359
	35kV	1.0991	0.7575	0.3229
	110kV	1.0891	0.7475	0.3129
	≥220kV	1.0791	0.7375	0.3029
Non-industrial usage				
	<1kV	1.1115	0.7705	0.3325
	1-10kV	1.0965	0.7555	0.3185
	35kV	1.0805	0.7395	0.3055
	110kV	1.0705	0.7295	0.2955
	≥220kV	1.0605	0.7195	0.2855
Commerical usage				
	<1kV	1.1865	0.8235	0.3585
	1-10kV	1.1745	0.8135	0.3515
	35kV	1.1635	0.8035	0.3415
	110kV	1.1535	0.7935	0.3315
	≥220kV	1.1435	0.7835	0.3215
Non-residential usage (lighting only)				
	<1kV	1.1705	0.8135	0.3545
	1-10kV	1.1585	0.8025	0.3475
	35kV	1.1475	0.7925	0.3375
	110kV	1.1375	0.7825	0.3275
	≥220kV	1.1275	0.7725	0.3175
Agricultural production usage				
	<1kV	0.7430	0.5160	0.3050
	1-10kV	0.7330	0.5060	0.2940
	≥35kV	0.7220	0.4960	0.2860

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

1. Beijing

Sales Price after Structural adjustment, yuan/kWh

End-users	Voltage	Critical Peak Period	Peak Period	Normal Period	Valley Period
Large industrial usage					
Non-preferential industries	1-10kV	0.9301	0.8553	0.5995	0.3527
	35kV	0.8999	0.8274	0.5795	0.3404
	110kV	0.8730	0.8021	0.5595	0.3255
	≥220kV	0.8546	0.7844	0.5445	0.3130
Preferential industries	1-10kV	0.9133	0.8400	0.5895	0.3478
	35kV	0.8830	0.8121	0.5695	0.3355
	110kV	0.8562	0.7868	0.5495	0.3206
	≥220kV	0.8378	0.7691	0.5345	0.3081
General industrial usage	<1kV	1.3113	1.2022	0.7565	0.3344
	1-10kV	1.2876	1.1802	0.7415	0.3260
	35kV	1.2639	1.1582	0.7265	0.3176
	110kV	1.2539	1.1482	0.7165	0.3076
	≥220kV	1.2439	1.1382	0.7065	0.2976
Non-industrial usage	<1kV	1.2933	1.1843	0.7385	0.3163
	1-10kV	1.2696	1.1623	0.7235	0.3079
	35kV	1.2459	1.1403	0.7085	0.2995
	110kV	1.2359	1.1303	0.6985	0.2895
	≥220kV	1.2259	1.1203	0.6885	0.2795
Commercial usage	<1kV	1.3564	1.2453	0.7885	0.3573
	1-10kV	1.3377	1.2283	0.7785	0.3539
	35kV	1.3277	1.2183	0.7685	0.3439
	110kV	1.3177	1.2083	0.7585	0.3339
	≥220kV	1.3077	1.1983	0.7485	0.3239
Non-residential usage (lighting only)	<1kV	1.3383	1.2288	0.7785	0.3536
	1-10kV	1.3196	1.2118	0.7685	0.3502
	35kV	1.3096	1.2018	0.7585	0.3402
	110kV	1.2996	1.1918	0.7485	0.3302
	≥220kV	1.2896	1.1818	0.7385	0.3302
Agricultural production usage	<1kV		0.7430	0.5160	0.3050
	1-10kV		0.7330	0.5060	0.2940
	≥35kV		0.7220	0.4960	0.2860

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

2. Tianjin

Retail Price, yuan/kWh

End-users	<1kV	1-10 kV	35-110kV	110-220kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4900	0.4800	0.4800				
Non-residential usage (lighting only)	0.8393	0.8293	0.8293				
General industrial & commercial usage	0.7603	0.7503	0.7403				
Electricity usage for small-medium fertilizer production	0.4473	0.4373	0.4273				
Large industrial usage		0.5773	0.5623	0.5523	0.5473	22.50	15.00
Electricity usage for calcium carbide, electrolysis of caustic soda and furnace phosphorus production		0.5603	0.5453	0.5353	0.5303	22.50	15.00
Electricity usage for small-medium fertilizer production		0.3033	0.2933	0.2833	0.2783	22.50	15.00
Agricultural production usage	0.4620	0.4520	0.4420				

Sales Price, yuan/kWh

End-users	Voltage	Peak Period	Normal Period	Valley Period
Large industrial usage				
Non-preferential industries	1-10kV	0.8238	0.5773	0.3468
	35-110kV	0.8038	0.5623	0.3348
	110-220kV	0.7938	0.5523	0.3248
	≥220kV	0.7848	0.5473	0.3218
Preferential industries	1-10kV	0.7918	0.5603	0.3428
	35-110kV	0.7728	0.5453	0.3308
	110-220kV	0.7618	0.5353	0.3208
	≥220kV	0.7528	0.5303	0.3178
General industrial & commercial usage	<1kV	1.1648	0.7603	0.3778
	1-10kV	1.1488	0.7503	0.3718
	≥35kV	1.1338	0.7403	0.3678
Non-residential usage	<1kV	1.3033	0.8393	0.3983
	1-10kV	1.2863	0.8293	0.3943
	≥35kV	1.2863	0.8293	0.3943
Agricultural production usage	<1kV	0.7000	0.4620	0.2410
	1-10kV	0.6850	0.4520	0.2360
	≥35kV	0.6680	0.4420	0.2320

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

2. Tianjin

Price for Small-Medium Size Fertilizer Production, yuan/kWh

	Voltage	Peak Period	Normal Period	Valley Period	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
General industrial & commercial usage	<1kV	0.6993	0.4473	0.2203		
	1-10kV	0.6843	0.4373	0.2143		
	≥35kV	0.6683	0.4273	0.2093		
Large industrial usage	1-10kV	0.4373	0.3033	0.1903	22.50	15.00
	35kV	0.4233	0.2933	0.1823	22.50	15.00
	110kV	0.4123	0.2833	0.1733	22.50	15.00
	220kV	0.4053	0.2783	0.1713	22.50	15.00
Ammonia Production usage	1-10kV	0.4193	0.2943	0.1893	22.50	15.00
	35kV	0.4053	0.2833	0.1803	22.50	15.00
	110kV	0.3973	0.2763	0.1733	22.50	15.00
	220kV	0.3903	0.2703	0.1713	22.50	15.00

N.B. 1. All the prices listed here include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, excluding price for agricultural production, all include urban public utilities charges, 0.022 yuan for residential, 0.043 yuan for non-residential lighting, 0.029 yuan for large industrial electricity usage and 0.039 yuan for general industrial and commercial usage.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

3. North Hebei

Retail Price, yuan/kWh

End-users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5200	0.4700	0.4700				
General industrial & commercial usage	0.6781	0.6681	0.6581				
Electricity usage for small-medium fertilizer production	0.3967	0.3867	0.3767				
Large industrial usage		0.4862	0.4712	0.4612	0.4562	30.00	20.00
Electricity usage for calcium carbide, electrolysis of caustic soda and furnace phosphorus production		0.4462	0.4312	0.4212	0.4162	30.00	20.00
Electricity usage for small-medium fertilizer production		0.2892	0.2792	0.2692	0.2642	22.50	15.00
Agricultural production usage	0.4252	0.4152	0.4052				
Electricity usage for drainage and irrigation in poor rural areas	0.2402	0.2372	0.2312				

N.B. 1. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, excluding price for agricultural production, preferential large industries and small-medium size fertilizer production, all include urban public utilities charges, 0.015 yuan for residential, 0.010 yuan for large industrial electricity usage and 0.011 yuan for general industrial and commercial usage.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include 0.0035 yuan for medium-large reservoir immigrants fund, and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

Wholesale Price, yuan/kWh

End-users	1-10kV	≥35kV
Residential usage		
General industrial & commercial usage		
Electricity usage for small-medium fertilizer production	0.3465	0.3365
Large industrial usage	0.4657	0.4507
Electricity usage for small-medium fertilizer production	0.2533	0.2433
Agricultural production usage	0.3646	0.3496
Electricity usage for drainage and irrigation in poor rural areas	0.1886	0.1836

N.B. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

3. North Hebei

Sales Price, yuan/kWh

End-users	Voltage	Critical Peak Period	Peak Period	Normal Period	Valley Period	Double-generation
Large industrial usage						
Non-preferential industries	1-10kV	0.7671	0.6934	0.4862	0.2933	
	35-110kV	0.7431	0.6758	0.4712	0.2821	
	110kV	0.7271	0.6652	0.4612	0.2716	
	≥220kV	0.7191	0.6571	0.4562	0.2686	
Preferential industries	1-10kV	0.7091	0.6375	0.4462	0.2696	
	35-110kV	0.6851	0.6189	0.4312	0.2583	
	110kV	0.6691	0.6095	0.4212	0.2478	
	≥220kV	0.6611	0.6083	0.4162	0.2447	
Small-medium size fertilizer production	1-10kV	0.4585	0.4157	0.2892	0.1745	
	35-110kV	0.4425	0.4040	0.2792	0.1664	
	110kV	0.4265	0.3935	0.2692	0.1568	
	≥220kV	0.4185	0.3821	0.2642	0.1525	
General industrial & commercial usage						
Non-preferential	<1kV	1.1066	1.0730	0.6781	0.3050	0.2820
	1-10kV	1.0901	1.0570	0.6681	0.3007	0.2780
	≥35kV	1.0736	1.1410	0.6581	0.2964	0.2740
Small-medium size fertilizer production	<1kV	0.6435	0.6325	0.3967	0.1762	
	1-10kV	0.6270	0.6185	0.3867	0.1712	
	≥35kV	0.6105	0.6036	0.3767	0.1672	
Agricultural production usage						
	<1kV		0.6565	0.4252	0.2104	
	1-10kV		0.6415	0.4152	0.2054	
	≥35kV		0.6245	0.4052	0.2014	
Wholesale electricity usage & Small-medium size fertilizer production						
	1-10kV		0.5230	0.3159	0.1204	
	≥35kV		0.5127	0.3069	0.1154	

N.B. 1. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, excluding price for agricultural production, preferential large industries and small-medium size fertilizer production, all include urban public utilities charges, 0.015 yuan for residential, 0.010 yuan for large industrial electricity usage and 0.011 yuan for general industrial and commercial usage.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include 0.0035 yuan for medium-large reservoir immigrants fund, and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

4. South Hebei

Retail Price, yuan/kWh

End-users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5200	0.4700	0.4700				
General industrial & commercial usage	0.7695	0.7595	0.7495				
Electricity usage for small-medium fertilizer production	0.4727	0.4627	0.4527				
Large industrial usage		0.5521	0.5371	0.5271	0.5171	30.00	20.00
Electricity usage for calcium carbide, electrolysis of caustic soda and furnace phosphorus production		0.4981	0.4831	0.4731	0.4681	30.00	20.00
Electricity usage for small-medium fertilizer production		0.2877	0.2727	0.2627	0.2577	22.50	15.00
Agricultural production usage	0.4350	0.4250	0.4150				
Electricity usage for drainage and irrigation in poor rural areas	0.2230	0.2180	0.2130				

N.B. 1. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, excluding price for agricultural production, all include urban public utilities charges, 0.015 yuan for residential, 0.010 yuan for large industrial electricity usage and 0.011 yuan for general industrial and commercial usage.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include 0.0035 yuan for medium-large reservoir immigrants fund, and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

Wholesale Price, yuan/kWh

End-users	1-10kV	≥35kV
Residential usage		
General industrial & commercial usage		
Electricity usage for small-medium fertilizer production	0.4257	0.4165
Large industrial usage	0.5236	0.5136
Electricity usage for small-medium fertilizer production	0.2677	0.2527
Agricultural production usage	0.3687	0.3522
Electricity usage for drainage and irrigation in poor rural areas	0.1777	0.1712

N.B. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

4. South Hebei

Sales Price, yuan/kWh

End-users	Voltage	Critical Peak Period	Peak Period	Normal Period	Valley Period	Double-generation
Large industrial usage						
Non-preferential industries	1-10kV	0.8696	0.8167	0.5521	0.2876	
	35-110kV	0.8456	0.7942	0.5371	0.2801	
	110kV	0.8296	0.7792	0.5271	0.2751	
	≥220kV	0.8136	0.7642	0.5171	0.2701	
Preferential industries	1-10kV	0.7832	0.7357	0.4981	0.2606	
	35-110kV	0.7592	0.7132	0.4831	0.2531	
	110kV	0.7432	0.6982	0.4731	0.2531	
	≥220kV	0.7352	0.6907	0.4681	0.2456	
Small-medium size fertilizer production	1-10kV	0.4471	0.4206	0.2877	0.1549	
	35-110kV	0.4231	0.3981	0.2727	0.1474	
	110kV	0.4071	0.3831	0.2627	0.1424	
	≥220kV	0.3391	0.3756	0.2577	0.1399	
General industrial & commercial usage						
Non-preferential	<1kV	1.2168	1.1423	0.7695	0.3968	0.3222
	1-10kV	1.2008	1.1273	0.7595	0.3918	0.3182
	≥35kV	1.1848	1.1123	0.7495	0.3868	0.3142
Small-medium size fertilizer production	<1kV	0.7425	0.6976	0.4727	0.2479	
	1-10kV	0.7265	0.6826	0.4627	0.2429	
	≥35kV	0.7105	0.6676	0.4527	0.2379	

N.B. 1. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, all include urban public utilities charges, 0.010 yuan for large industrial electricity usage and 0.011 yuan for general industrial and commercial usage.

N.B. 3. All the prices listed here, all include 0.0035 yuan for medium-large reservoir immigrants fund, and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

5. Shandong

Retail Price, yuan/kWh

End-users	Voltage	Qingdao	Weihai	Heze	Rizhao, Linxi, Weifang, Yantai	Dezhou, Zaozhuang, Jinan, Tai'an, Liaocheng, Zibo	Jining, Laiwu, Binzhou, Dongying	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	<1kV	0.5469	0.5469	0.5469	0.5469	0.5469	0.5469		
	≥1kV	0.4929	0.4929	0.4929	0.4929	0.4929	0.4929		
General industrial & commercial usage	<1kV	0.8045	0.7765	0.6450	0.7335	0.7071	0.6876		
	1-10kV	0.7945	0.7665	0.6350	0.7235	0.6971	0.6776		
	35-110kV	0.7845	0.7565	0.6250	0.7135	0.6871	0.6676		
Large industrial usage	1-10kV	0.6934	0.6654	0.5339	0.6224	0.5960	0.5765	30.00	20.00
	35-110kV	0.6834	0.6554	0.5239	0.6124	0.5860	0.5665	30.00	20.00
	110-220kV, ≥220kV	0.6734	0.6454	0.5139	0.6024	0.5760	0.5565	30.00	20.00
Electricity usage for calcium carbide, electrolysis of caustic soda and furnace phosphorus production	1-10kV	0.6834	0.6554	0.5239	0.6124	0.5860	0.5665	30.00	20.00
	35-110kV	0.6734	0.6454	0.5139	0.6024	0.5750	0.5565	30.00	20.00
	110-220kV, ≥220kV	0.6634	0.6354	0.5039	0.5924	0.5660	5465.0000	30.00	20.00
Electricity usage for small-medium fertilizer production	1-10kV	0.3332	0.3332	0.3332	0.3332	0.3332	0.3332	30.00	20.00
	35-110kV	0.3282	0.3282	0.3282	0.3282	0.3282	0.3282	30.00	20.00
	110-220kV, ≥220kV	0.3192	0.3192	0.3192	0.3192	0.3192	0.3192	30.00	20.00
Agricultural production usage	<1kV	0.5970	0.5690	0.4350	0.5140	0.4872	0.4687		
	1-10kV	0.5910	0.5630	0.4290	0.5070	0.4814	0.4633		
	35-110kV	0.5820	0.5540	0.4200	0.4987	0.4730	0.4527		

N.B. 1. All the prices listed here include 0.007 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, excluding price for agricultural production, all include 0.01 yuan for urban public utilities charges and 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

N.B. 4. Electricity usage for agricultural drainage and irrigation and small-medium fertilizer production should reduce 0.02 yuan based on listed prices.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

6. Shanxi

Sales Price, yuan/kWh

End-users	<1kV	1-10 kV	35-110kV	110-220kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4670	0.4570					
General industrial & commercial usage	0.6500	0.6350	0.6250				
Electricity usage for small-medium fertilizer production	0.4040	0.3940	0.3840				
Large industrial usage		0.4060	0.3910	0.3810	0.3760	37.50	25.00
Electricity usage for ammonia, electrolysis of caustic soda and furnace phosphorus production		0.3930	0.3780	0.3680	0.3630	37.50	25.00
Electricity usage for calcium carbide		0.3830	0.3680	0.3580	0.3530	37.50	25.00
Electricity usage for small-medium fertilizer production		0.2930	0.2780	0.2680	0.2630	27.00	18.00
Agricultural production usage	0.3570	0.3470	0.3370				
Electricity usage for drainage and irrigation in non-poor rural areas	0.2970						
Electricity usage for drainage and irrigation in poor rural areas	0.2060	0.2010	0.1960				
Wholesale usage			0.2880				

N.B. 1. All the prices listed here, excluding electricity price for drainage and irrigation in poor rural areas, include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, excluding price for drainage and irrigation in poor rural areas and agricultural production, all include urban public utilities charges, 0.01 yuan for residential, 0.005 yuan for large industrial electricity usage and 0.008 yuan for general industrial and commercial usage.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

Source: NDRC.

Table 6B.22. North China Electricity Price, July 2008 (continued)

7. West Inner Mongolia

Sales Price, yuan/kWh

End-users	<1kV	1-10 kV	35-110kV	110-220kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4300	0.4200	0.4200				
Non-residential usage	0.5372	0.5172	0.5172				
Commercial usage	0.7610	0.7510	0.7410				
Non-industrial usage & General industrial usage	0.5303	0.5203	0.5103				
Large industrial usage		0.4300	0.4150	0.4030	0.3960	28.00	19.00
Electricity usage for furnace ferroalloy, ammonia, electrolysis of caustic soda and furnace phosphorus production		0.3800	0.3650	0.3530	0.3460	28.00	19.00
Electricity usage for calcium carbide		0.3500	0.3350	0.3230	0.3160	28.00	19.00
Electricity usage for small-medium fertilizer production		0.2700	0.2600	0.2500	0.2430	21.00	14.00
Agricultural production usage	0.3710	0.3610	0.3510				
Electricity usage for drainage and irrigation in poor rural areas	0.1800	0.1770	0.1740				

N.B.1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, excluding price for drainage and irrigation in poor rural areas and agricultural production, all include urban public utilities charges, 0.015 yuan for residential, non-residential lighting usage, 0.007 yuan for large industrial, non-industrial, general industrial and commercial usage.

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.2990	0.2990	0.2750	0.2750
Non-residential usage (lighting only)	0.3822	0.3822	0.3822	0.3822
Commercial usage	0.5910	0.5910	0.5910	0.5910
Non-industrial usage & General industrial usage	0.3806	0.3706	0.3806	0.3706
Agricultural production usage	0.2760	0.2710	0.2760	0.2710
Electricity usage for drainage and irrigation in poor rural areas	0.1420	0.1370	0.1420	0.1420

N.B.1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, excluding price for drainage and irrigation in poor rural areas and agricultural production, all include urban public utilities charges, 0.015 yuan for residential, non-residential lighting usage, 0.007 yuan for large industrial, non-industrial, general industrial and commercial usage.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008

1. Hubei

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5700	0.5600	0.5600				
Low-income family (monthly usage 50kWh/month)	0.4798	0.4798	0.4798				
Non-residential lighting & Commercial usage	0.9450	0.9250	0.9050				
Non-industrial usage & General industrial usage	0.8250	0.8050	0.7850				
Electricity usage for small-medium fertilizer production	0.4450	0.4350	0.4250				
Large industrial usage		0.5570	0.5370	0.5170	0.4970	39.00	26.00
Electricity usage for ion-exchange membrane caustic soda production		0.5300	0.5100	0.4900	0.4700	39.00	26.00
Electricity usage for small-medium fertilizer production		0.3250	0.3100	0.2950	0.2800	33.00	22.00
Agricultural production usage	0.4800	0.4700	0.4600				
Electricity usage for drainage and irrigation in poor rural areas	0.2600	0.2450	0.2300				

N.B. 1. All the prices listed here include 0.0188 yuan/kWh for rural low-pressure grid maintenance fee.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include urban public utilities charges, 0.012 yuan for residential, and 0.002 yuan for others.

N.B. 5. Electricity usage for relief work and small-medium fertilizer production should reduce 0.02 yuan based on listed prices.

Retail Price (in areas without urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5580	0.5480	0.5480				
Non-residential lighting & Commercial usage	0.9350	0.9150	0.8950				
Non-industrial usage & General industrial usage	0.8150	0.7950	0.7750				
Electricity usage for small-medium fertilizer production	0.4350	0.4250	0.4150				
Large industrial usage		0.5470	0.5270	0.5070	0.4870	39.00	26.00
Electricity usage for ion-exchange membrane caustic soda production		0.5200	0.5000	0.4800	0.4600	39.00	26.00
Electricity usage for small-medium fertilizer production		0.3150	0.3000	0.2850	0.2700	33.00	22.00
Agricultural production usage	0.4800	0.4700	0.4600				
Electricity usage for drainage and irrigation in poor rural areas	0.2600	0.2450	0.2300				

N.B. 1. All the prices listed here include 0.0188 yuan/kWh for rural low-pressure grid maintenance fee.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

N.B. 4. Electricity usage for relief work and small-medium fertilizer production should reduce 0.02 yuan based on listed prices.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

1. Hubei

Retail Price (in Wuhan City where urban public utilities fees are charged), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5730	0.5630	0.5630				
Low-income family (monthly usage 50kWh/month)	0.4828	0.4828	0.4828				
Non-residential lighting & Commercial usage	0.9500	0.9300	0.9100				
Non-industrial usage & General industrial usage	0.8250	0.8050	0.7850				
Electricity usage for small-medium fertilizer production	0.4450	0.4350	0.4250				
Large industrial usage		0.5570	0.5370	0.5170	0.4970	39.00	26.00
Electricity usage for small-medium fertilizer production		0.3250	0.3100	0.2950	0.2800	33.00	22.00
Agricultural production usage	0.4800	0.4700	0.4600				
Electricity usage for drainage and irrigation in poor rural areas	0.2600	0.2450	0.2300				

N.B. 1. All the prices listed here include 0.0188 yuan/kWh for rural low-pressure grid maintenance fee.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and small-medium fertilizer production, and 0.002 yuan for others.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include urban public utilities charges, 0.012 yuan for residential, and 0.002 yuan for others.

N.B. 5. Electricity usage for relief work and small-medium fertilizer production should reduce 0.02 yuan based on listed prices.

Wholesale Price, yuan/kWh

End-users	1-10kV	≥35kV
Wholesale at county level	0.4700	0.4700
Electricity usage for small-medium fertilizer production	0.3250	0.3100
Wholesale below county level	0.4820	0.4820
Electricity usage for small-medium fertilizer production	0.3260	0.3110
Enshi County Wholesale	0.4500	0.4500
Electricity usage for small-medium fertilizer production	0.3050	0.2900

N.B. 1. All the prices listed here include 0.0188 yuan/kWh for rural low-pressure grid maintenance fee.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for fertilizer production, and 0.002 yuan for others.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

2. Hunan

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5880	0.5730	0.5630				
Non-residential lighting	0.9200	0.8960	0.8800				
Commercial usage	1.0300	1.0100					
Non-industrial usage & General industrial usage	0.7530	0.7280	0.7030	0.6780			
Electricity usage for small-medium fertilizer production	0.4200	0.4100	0.3900				
Large industrial usage		0.6100	0.5810	0.5530	0.5290	30.00	20.00
Electricity usage for small-medium fertilizer production		0.3000	0.2850	0.2700		30.00	20.00
Agricultural production usage	0.4320	0.4120	0.3920	0.3720			
Electricity usage for drainage and irrigation in poor rural areas	0.2950	0.2850	0.2750				

N.B. 1. All the prices listed here, excluding price for agricultural production and rural residential lighting, all include urban public utilities charges, 0.02 yuan for residential lighting, non-residential lighting and commercial usage, and 0.007 yuan for large industrial, non-industrial and general industrial usage.

Retail Price (in areas without urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5880	0.5730	0.5630				
Non-residential lighting	0.9000	0.8760	0.8600				
Commercial usage	1.0100	0.9900					
Non-industrial usage & General industrial usage	0.7460	0.7210	0.6960	0.6710			
Electricity usage for small-medium fertilizer production	0.4130	0.4030	0.3830				
Large industrial usage		0.6030	0.5740	0.5460	0.5220	30.00	20.00
Electricity usage for small-medium fertilizer production		0.2930	0.2780	0.2630		30.00	20.00
Agriculture production usage	0.4320	0.4120	0.3920	0.3720			
Electricity usage for drainage and irrigation in poor rural areas	0.2950	0.2850	0.2750				

Wholesale Price, yuan/kWh

End-users	1-10kV	35-110kV	110kV
Residential usage	0.4530	0.4430	0.4330
Non-residential lighting	0.6930	0.6830	0.6730
Commercial usage	0.8140	0.8040	0.7940
Non-industrial usage & General industrial usage	0.5040	0.4940	0.4840
Agricultural production usage	0.3390	0.3290	0.3190
Electricity usage for small-medium fertilizer production	0.2270	0.2170	0.2070

N.B. 1. All the prices, excluding prices for small-medium fertilizer production and drainage and irrigation in poor rural areas, all include 0.02 yuan for rural grid improvement loan and 0.013 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.
and 0.002 yuan for others.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

3. Henan

Retail Price, yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5600	0.5210					
Non-residential lighting	0.6980	0.6510					
General industrial & commercial usage	0.7240	0.7070	0.6570				
Electricity usage for fertilizer production	0.5130	0.5000	0.4910				
Large industrial usage		0.5280	0.5130	0.4980	0.4900	28.00	20.00
Electricity usage for furnace ferroalloy, ammonia, electrolysis of caustic soda and furnace phosphorus production		0.5080	0.4930	0.4780	0.4700	28.00	20.00
Electricity usage for ion-exchange membrane chlor-alkali production		0.4840	0.4690	0.4540	0.4460	28.00	20.00
Electricity usage for fertilizer production		0.4070	0.3980	0.3890	0.3800	21.00	15.00
Electricity usage for ammonia production		0.3620	0.3520	0.3420	0.3320	21.00	15.00
Agricultural production usage	0.3830	0.3740	0.3650				
Electricity usage for agricultural deep well & drainage and irrigation	0.3630	0.3540	0.3450				

N.B. 1. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0083 yuan for medium-large reservoir immigrants fund, and 0.0005 yuan for local reservoir immigrants fund.

N.B. 3. All the prices include 0.013 yuan for Three Gorges Dam Construction Fund.

N.B. 4. All the prices listed here, excluding price for agricultural production and fertilizer production, all include urban public utilities charges, 0.015 yuan for residential and non-residential lighting usage, and 0.01 yuan for others.

N.B. 5. Prices for fertilizer production with production certificates released from former Ministry of Chemical Industry should reduce 0.02 yuan based on above listed prices.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

4. Jiangxi

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.6000	0.6000	0.6000				
Non-residential lighting & Commercial usage	0.9900	0.9750	0.9600				
Non-industrial usage & General industrial usage	0.7030	0.6880	0.6730				
Electricity usage for small-medium fertilizer production	0.4730	0.4580	0.4430				
Large industrial usage		0.5840	0.5690	0.5540	0.5440	36.00	24.00
Electricity usage for furnace ferroalloy, ammonia, electrolysis of caustic soda and furnace phosphorus production		0.5430	0.5280	0.5130	0.5030	36.00	24.00
Electricity usage for calcium carbide production		0.5330	0.5180	0.5030	0.4930	36.00	24.00
Electricity usage for small-medium fertilizer production		0.3710	0.3560	0.3410	0.3310	30.00	20.00
Agricultural production usage		0.6600	0.6450	0.6300			
Electricity usage for drainage and irrigation in poor rural areas		0.3500	0.3350	0.3200			

N.B. 1. The prices listed above are for areas that have urban public utilities charges; areas without urban public utilities charges should subtract these charges based on above listed prices. 0.02 yuan for non-residential lighting and commercial usage, 0.009 yuan for non-industrial and general industrial usage, 0.007 yuan for small-medium fertilizer production and 0.008 yuan for large industrial usage. Among large industries, 0.007 yuan for furnace ferroalloy, ammonia, electrolysis of caustic soda and furnace phosphorus production and 0.006 yuan for small-medium fertilizer production.

N.B. 2. In non-residential lighting and commercial usage, price for hotels above 3 stars should reduce 0.1 yuan.

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3620	0.3620		
Non-residential lighting & Commercial Usage	0.7610	0.7460		
Non-industrial usage & General industrial usage	0.5760	0.5610		
Agricultural production usage	0.3660	0.3510		
Electricity usage for drainage and irrigation in poor rural areas	0.2480	0.2330		

N.B.1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.00552 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

5. Sichuan

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage							
Residence with unified metering	0.5224	0.5124	0.5124				
Residence with one meter per household							
Monthly usage <60	0.4724	0.4624	0.4624				
Monthly usage 60k-100 kWh	0.5524	0.5424	0.5424				
Monthly usage 101-150 kWh	0.5824	0.5724	0.5724				
Monthly usage >151	0.6324	0.6224	0.6224				
Non-residential lighting usage	0.8128	0.7978	0.7828				
Commercial usage	0.8888	0.8738	0.8588				
Non-industrial usage & General industrial usage	0.7178	0.7028	0.6878				
Electricity usage for small-medium fertilizer production	0.4558	0.4458	0.4358				
Large industrial usage		0.5858	0.5708	0.5558	0.5408	27.00	18.00
Electricity usage for ammonia, furnace CaMgP fertilizer		0.5128	0.4978	0.4878	0.4778	21.00	14.00
Electricity usage for chloralkali, furnace steel, calcium carbide, furnace ferroalloy and furnace phosphorus production		0.5458	0.5308	0.5158	0.5008	27.00	18.00
Electricity usage for ion-exchange membrane chlor-alkali production		0.5268	0.5118	0.4968	0.4818	27.00	18.00
Electricity usage for small-medium fertilizer production		0.3558	0.3408	0.3308	0.3208	21.00	14.00
Agricultural production usage	0.5064	0.4964	0.4864				
Electricity usage for drainage and irrigation in poor rural areas	0.1914	0.1814	0.1714				

N.B.1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.007 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. The prices listed here, except price for agricultural production and rural residential usage, all include 0.01 yuan for urban public utilities charges. Prices in areas without urban public utilities charges, except price for agricultural production and residential usage, should subtract 0.01 yuan based on above listed prices.

N.B. 3. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3614	0.3614	0.3814	0.3814
Non-residential lighting	0.6494	0.6494	0.6694	0.6694
Commercial Usage	0.7774	0.7774	0.7974	0.7974
Non-industrial usage & General industrial usage	0.5684	0.5584	0.5884	0.5684
Agricultural production usage	0.4230	0.4130	0.4230	0.4130
Electricity usage for drainage and irrigation in poor rural areas	0.1280	0.1230	0.1280	0.1230

N.B.1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.007 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 4. In the prices of non-industrial and general industrial usage, price for fertilizer production should reduce 0.11 yuan based on listed prices (which includes 0.02 yuan for rural grid loan).

N.B. 5. Price for electricity usage for ion-exchange membrane chlor-alkali production should reduce 0.019 yuan based on listed price.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

5. Sichuan

Retail Price (in earthquake rebuilding areas), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand	Transformer Capacity
						Charge (yuan/kW · month)	
Residential usage							
Residence with unified metering	0.5224	0.5124	0.5124				
Residence with one meter per household							
Monthly usage <60	0.4724	0.4624	0.4624				
Monthly usage 60-100	0.5524	0.5424	0.5424				
Monthly usage 101-150 kWh	0.5824	0.5724	0.5724				
Monthly usage >151	0.6324	0.6224	0.6224				
Non-residential lighting usage	0.7878	0.7728	0.2578				
Commercial usage	0.8638	0.8488	8338.0000				
Non-industrial usage & General industrial usage	0.6928	0.6778	0.6628				
Electricity usage for small-medium fertilizer production	0.4558	0.4458	0.4358				
Large industrial usage		0.5608	0.5458	0.5308	0.5158	27.00	18.00
Electricity usage for ammonia, furnace CaMgP fertilizer		0.5128	0.4978	0.4878	0.4778	21.00	14.00
Electricity usage for chloralkali, furnace steel, calcium carbide, furnace ferroalloy and furnace phosphorus production		0.5208	0.5058	0.4908	0.4758	27.00	18.00
Electricity usage for ion-exchange membrane chloralkali production		0.5018	0.4868	0.4718	0.4568	27.00	18.00
Electricity usage for small-medium fertilizer production		0.3558	0.3408	0.3308	0.3208	21.00	14.00
Agricultural production usage	0.5064	0.4964	0.4864				
Electricity usage for drainage and irrigation in poor rural areas	0.1914	0.1814	0.1714				

N.B.1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.007 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. The prices listed here, except price for agricultural production and rural residential usage, all include 0.01 yuan for urban public utilities charges. Prices in areas without urban public utilities charges, except price for agricultural production and residential usage, should subtract 0.01 yuan based on above listed prices.

N.B. 3. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

Wholesale Price (in earthquake rebuilding areas), yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3614	0.3614	0.3814	0.3814
Non-residential lighting	0.6244	0.6244	0.6444	0.6444
Commercial Usage	0.7524	0.7524	0.7724	0.7724
Non-industrial usage & General industrial usage	0.5434	0.5334	0.5634	0.5434
Agricultural production usage	0.4230	0.4130	0.4230	0.4130
Electricity usage for drainage and irrigation in poor rural areas	0.1280	0.1230	0.1280	0.1230

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.007 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 4. In the prices of non-industrial and general industrial usage, price for fertilizer production should reduce 0.11 yuan based on listed prices (which includes 0.02 yuan for rural grid loan).

N.B. 5. Price for electricity usage for ion-exchange membrane chlor-alkali production should reduce 0.019 yuan based on listed price.

Source: NDRC.

Table 6B.23. Central China Electricity Price, July 2008 (continued)

6. Chongqing

Retail Price, yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5200	0.5100	0.5100	0.5100			
Non-residential lighting usage	0.8220	0.8070	0.7920	0.7770			
Commercial usage	0.8430	0.8280	0.8130	0.7980			
Non-industrial usage & General industrial usage	0.7140	0.6990	0.6840	0.6690			
Electricity usage for small-medium fertilizer production	0.3320	0.3220	0.3120	0.3020			
Large industrial usage		0.5740	0.5540	0.5390	0.5290	35.00	23.00
Electricity usage for ammonia, furnace CaMgP fertilizer, electrolysis of caustic soda, calcium carbide, furnace ferroalloy and furnace phosphorus production		0.4990	0.4790	0.4640	0.4540	35.00	23.00
Electricity usage for small-medium fertilizer production		0.2380	0.2230	0.2130	0.2080	27.00	18.00
Electricity usage for electrolytic aluminium production		0.5290	0.5090	0.4940	0.4840	35.00	23.00
Agricultural production usage	0.4580	0.4480	0.4380				
Electricity usage for drainage and irrigation in poor rural areas	0.2260	0.2160	0.2060				

N.B. 1. Prices listed here all include 0.007 yuan for Three Gorges Dam Construction Fund and except electricity usage for drainage and irrigation in poor rural areas, all include 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 4. The prices listed here, except price for agricultural production, all include urban public utilities charges; 0.02 yuan for residential usage, 0.0384 yuan for non-residential lighting and commercial usage, and 0.022 yuan for non-industrial, general industrial and large industrial usage (while 0.01 yuan for ammonia, furnace CaMgP fertilizer, electrolysis of caustic soda, calcium carbide, furnace ferroalloy and furnace phosphorus production).

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3340	0.3340	0.3740	0.3740
Non-residential lighting	0.5934	0.5904	0.6334	0.6304
Commercial Usage	0.6294	0.6264	0.6694	0.6664
Non-industrial usage & General industrial usage	0.5022	0.4882	0.5322	0.5182
Agricultural production usage	0.3500	0.3400	0.3700	0.3600
Electricity usage for drainage and irrigation in poor rural areas	0.1450	0.1400	0.1450	0.1400

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.007 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0088 yuan for reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 4. The prices listed here, except price for agricultural production, all include urban public utilities charges; 0.02 yuan for residential usage, 0.0384 yuan for non-residential lighting and commercial usage, and 0.022 yuan for non-industrial, general industrial and large industrial usage (while 0.01 yuan for ammonia, furnace CaMgP fertilizer, electrolysis of caustic soda, calcium carbide, furnace ferroalloy and furnace phosphorus production).

Source: NDRC.

Table 6B. 24. East China Electricity Price, July 2008

1. Zhejiang

End-User	Voltage	Price per Unit	Two-par Time-of-Use		Six-par Time-of-Use			Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
			Peak	Valley	Critical Peak	Peak	Valley		
Residential Usage	"One household one meter" residence usage <1kV	Monthly usage <50kwh	0.538	0.568	0.288				
		Monthly usage 51-200 kwh	0.568	0.598	0.318				
		Monthly usage ≥201 kwh	0.638	0.668	0.388				
	Residence usage with unified meter <1 kV	Residence usage with unified meter <1 kV	0.558						
		Residence usage with unified meter 1-10 kV	0.538						
		Rural residence usage 1-10kV	0.508						
Large industrial usage	1-10kV	1-10kV	0.621		1.0540	0.8720	0.3880	38.00	28.00
		≥35kV	0.606		1.0310	0.8520	0.3790	38.00	28.00
		≥110kV	0.596		1.0100	0.8350	0.3710	38.00	28.00
		≥220kV	0.591		1.0000	0.8270	0.3670	38.00	28.00
	Small-medium fertilizer production	1-10kV	0.232					30.00	20.00
		≥35kV	0.217					30.00	20.00
		≥110kV	0.207					30.00	20.00
	Electrolytic aluminium production		0.403					40.00	30.00
	Chloralkali production	1-10kV	0.542		0.9450	0.7330	0.3070	40.00	30.00
		≥35kV	0.509		0.9180	0.7150	0.2980	40.00	30.00
		≥110kV	0.499		0.8990	0.6980	0.2900	40.00	30.00
	Ion-exchange membrane chloralkali production	1-10kV	0.508		0.9290	0.7170	0.2910	40.00	30.00
		≥35kV	0.493		0.9020	0.6990	0.2820	40.00	30.00
		≥110kV	0.483		0.8830	0.6820	0.2740	40.00	30.00
General industrial and commercial usage	<1kV	<1kV	0.844	0.963	1.373	1.068	0.545		
		1-10kV	0.824	0.941	1.341	1.043	0.531		
		≥35kV	0.809	0.924	1.317	1.024	0.521		
	Small-medium fertilizer production	<1kV	0.322						
		1-10kV	0.302						
		≥35kV	0.287						
	Commercial usage without time-of-use price system	<1kV	0.975						
		1-10kV	0.955						
		≥35kV	0.940						
Non-industrial usage	<1kV	<1kV	0.874						
		1-10kV	0.854						
		≥35kV	0.839						
	Military and prison administration usage	<1kV	0.658						
		1-10kV	0.638						
		≥35kV	0.623						
Agricultural production u	<1kV	<1kV	0.641						
		1-10kV	0.621						
		≥35kV	0.606						
	Drainage and irrigation usage	<1kV	0.39						
		1-10kV	0.37						
		≥35kV	0.355						
	Drainage and irrigation usage in	<1kV	0.123						
		1-10kV	0.103						

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.01436 yuan for Three Gorges Dam Construction Fund.

N.B. 2. The prices listed here, except price for agricultural production, all include 0.005 yuan for urban public utilities charges.

N.B. 3. All the prices listed here, except agricultural production usage, include 0.0083 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. Prices listed here, except electricity usage for agricultural production and fertilizer production, all include 0.02 yuan for rural grid loan.

N.B. 5. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 6. In two-par time-of-use system, peak hours is 8:00-22:00, valley hours is 22:00-next day 6:00. In six-par time-of-use system, critical peak hours is 19:00-21:00, peak hours is 8:00-11:00, 13:00-19:00, 21:00-22:00; valley hours is 11:00-13:00, 22:00-next day 8:00.
Source: NDRC.

Table 6B. 24. East China Electricity Price, July 2008 (continued)

2. Shanghai

Retail Price (in areas without time-of-use price system), yuan/kWh

End-Users	<1kV	10kV	35kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.6170	0.6120				
General lighting usage	0.9080	0.8880	0.8680	0.8480		
Non-industrial usage & General industrial usage	0.8200	0.8000	0.7800	0.7600		
Sewer usage	0.6200	0.6000	0.5800	0.5600		
Agricultural production usage	0.6230	0.6080	0.5930			
Agricultural sideline production usage	0.3160	0.3140	0.3110			
Drainage and irrigation usage	0.2610	0.2590	0.2560			
Industrial and commercial usage and others	0.6750	0.6550	0.6350	0.6150	39.00	26.00
Electricity usage for ferroalloy, calcium carbide, and electrolysis of caustic soda production		0.5000	0.4800	0.4600	39.00	26.00
Electricity usage for ion-exchange membrane caustic soda production		0.4850	0.4650	0.4450	39.00	26.00
Electricity usage for ammonia production		0.3140	0.2940	0.2740	39.00	26.00
Gas usage		0.6400	0.6200	0.6000	39.00	26.00

Retail Price (in areas with two-par time-of-use price system), yuan/kWh

End-Users	Time	<1kV	10kV	35kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Industrial, commercial and other usage	Peak	1.0740	1.0490	1.0240	0.9990	39.00	26.00
	Shoulder	0.6710	0.6460	0.6210	0.5960	39.00	26.00
	Valley	0.3160	0.3100	0.3040	0.2980	39.00	26.00
Agricultural production usage (pilot)	Peak		0.7300			33.00	22.00
	Shoulder		0.4480			33.00	22.00
	Valley		0.2420			33.00	22.00

N.B. Peak (8:00-11:00; 18:00-21:00); Shoulder (6:00-8:00; 11:00-18:00; 21:00-22:00); Valley (22:00-next day 6:00).

Retail Price (in areas with one-par time-of-use price system), yuan/kWh

End-Users	Time	<1kV	10kV	35kV
Industrial, commercial and other usage	Peak	0.9750	0.9510	0.9250
	Valley	0.4650	0.4400	0.4150
Agricultural production usage (pilot)	Peak	0.6290		
	Valley	0.3390		
Residential usage	Peak	0.6170		
	Valley	0.3070		

N.B. Peak (6:00-22:00); Valley (22:00-next day 6:00).

Source: NDRC.

Table 6B. 24. East China Electricity Price, July 2008 (continued)

2. Shanghai

Summer Retail Price (in areas without time-of-use price system), yuan/kWh

End-Users	<1kV	10kV	35kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.6170	0.6120				
General lighting usage	0.9330	0.9130	0.8930	0.8730		
Non-industrial usage & General industrial usage	0.8450	0.8250	0.8050	0.7850		
Sewer usage	0.6450	0.6250	0.6050	0.5850		
Agricultural production usage	0.6230	0.6080	0.5930			
Agricultural sideline production usage	0.3160	0.3140	0.3110			
Drainage and irrigation usage	0.2610	0.2590	0.2560			
Industrial and commercial usage and others	0.7000	0.6800	0.6600	0.6400	39.00	26.00
Electricity usage for ferroalloy, calcium carbide, and electrolysis of caustic soda production		0.5250	0.5050	0.4850	39.00	26.00
Electricity usage for ion-exchange membrane caustic soda production		0.5100	0.4900	0.4700	39.00	26.00
Electricity usage for ammonia production		0.3390	0.3190	0.2990	39.00	26.00
Gas usage		0.6650	0.6450	0.6250	39.00	26.00

Summer Retail Price (in areas with two-par time-of-use price system), yuan/kWh

End-Users	Time	<1kV	10kV	35kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Industrial, commercial and other usage	Peak	1.0990	1.0740	1.0490	1.0240	39.00	26.00
	Shoulder	0.6960	0.6710	0.6460	0.6210	39.00	26.00
	Valley	0.2510	0.2450	0.2390	0.2330	39.00	26.00
Agricultural production usage (pilot)	Peak		0.7300			33.00	22.00
	Shoulder		0.4480			33.00	22.00
	Valley		0.2420			33.00	22.00

N.B. Peak (8:00-11:00, 13:00-15:00, 18:00-21:00); Shoulder (6:00-8:00, 11:00-13:00, 15:00-18:00, 21:00-22:00); Valley (22:00-next day 6:00).

Summer Retail Price (in areas with one-par time-of-use price system), yuan/kWh

End-Users	Time	<1kV	10kV	35kV
Industrial, commercial and other usage	Peak	1.0010	0.9760	0.9510
	Valley	0.4900	0.4650	0.4400
Agricultural production usage (pilot)	Peak	0.6290		
	Valley	0.3390		
Residential usage	Peak	0.6170		
	Valley	0.3070		

N.B. Peak (6:00-22:00); Valley (22:00-next day 6:00).

Source: NDRC.

Table 6B. 24. East China Electricity Price, July 2008 (continued)

3. Jiangsu

Retail Price, yuan/kWh

End-Users	<1kV	1-10kV	20-35kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)
Residential usage	0.5283	0.5183					
General industrial, commercial and other usage	0.8130	0.7980	0.792	0.783			
Small-medium fertilizer production	0.3700	0.3550	0.349	0.34			
Restricted high energy intensity industries	0.8630	0.8480	0.842	0.833			
Prohibited high energy intensity industries	1.0130	0.9980	0.992	0.983			
Large industrial usage		0.6020	0.596	0.587	0.5720	0.5570	38.00
Electricity usage for ion-exchange membrane caustic soda production		0.5840	0.578	0.569	0.5540	0.5390	38.00
Small-medium fertilizer production		0.2320	0.226	0.217	0.2020		30.00
Restricted high energy intensity industries		0.6520	0.646	0.637	0.6220	0.6070	38.00
Prohibited high energy intensity industries		0.8020	0.796	0.787	0.7720	0.7570	38.00
Agricultural production usage	0.4400	0.4300	0.424	0.415			
Drainage and irrigation usage in poor areas	0.2940	0.2920	0.29	0.288			

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include fees for Three Gorges Dam Construction Fund, which is 0.003 yuan for small-medium size fertilizer production and residential usage, and 0.01491 yuan for other usage.

N.B. 2. All the prices listed here, except agricultural production usage, include 0.0083 yuan for reservoir immigrants fund.

N.B. 3. The prices listed here, except price for agricultural production and rural residential usage, all include urban public utilities charges, which is 0.03 yuan for urban residential usage and 0.006 yuan for other usage.

N.B. 4. Large industrial usage and general industrial, commercial and other usage include 0.002 yuan for renewable energy charges.

N.B. 5. Former "non-residential lighting usage" and "non-industrial and general industrial usage" are combined and called "General industrial, commercial and other usage".

Source: NDRC.

Table 6B. 24. East China Electricity Price, July 2008 (continued)

4. Anhui

Retail Price, yuan/kWh

End-Users	<1kV	1-10 kV	35kV	110kV	220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5653	0.5503					
General industrial and commercial usage	0.8125	0.7975	0.7825				
Large industrial usage		0.6020	0.5870	0.5720	0.5620	38.00	28.00
Electricity usage for ammonia, electrolysis of caustic soda, calcium carbide and furnace phosphorus production		0.5920	0.5770	0.5620	0.5520	38.00	28.00
Electricity usage for electrolytic aluminium production		0.572	0.5570	0.5420	0.5320	38.00	28.00
Electricity usage for small-medium fertilizer production		0.3865	0.3715	0.3565		21.00	15.00
Agricultural production usage	0.4790	0.4640	0.4490				
Electricity usage for drainage and irrigation in poor rural areas	0.2540	0.2390	0.2240				

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation in poor rural areas, all include 0.01292 yuan for Three Gorges Dam Construction Fund.

N.B. 2. The prices listed here, except price for agricultural production and small-medium fertilizer production, all include urban public utilities charges, which is 0.015 yuan for residential usage, 0.08 yuan for general industrial and commercial usage, and 0.004 yuan for large industrial usage.

N.B. 3. All the prices listed here, except agricultural production usage, include 0.0083 yuan for reservoir immigrants fund; and except prices for residential usage and agricultural production, all include 0.0005 yuan for local reservoir immigrants.

N.B. 4. All the prices listed here, except agricultural production and residential usage, all include renewable energy charges, which is 0.002 yuan for general industrial and commercial usage and 0.001 yuan for small-medium fertilizer production.

Retail Price, yuan/kWh

End-Users	Time	<1kV	10kV	35kV	≥110kV	≥220kV
Residence	Peak	0.5953				
	Valley	0.3153				
Electronic boiler and AC (cooling)	Peak	July-Sept.	0.7980	0.7735		
		Other months	0.7519	0.7290		
	Shoulder		0.5080	0.4930		
	Valley		0.3193	0.3104		
General industrial and commercial usage	Peak	July-Sept.	1.2918	1.2673	1.2429	
		Other months	1.2157	1.1928	1.1698	
	Shoulder		0.8125	0.7975	0.7825	
	Valley		0.5006	0.4917	0.4829	
Large industrial usage	Peak	July-Sept.	0.9512	0.9267	0.9023	0.886
		Other months	0.8958	0.8728	0.8499	0.8346
	Shoulder		0.602	0.587	0.572	0.562
	Valley		0.3747	0.3659	0.357	0.3511
Electricity usage for electrolysis of caustic soda and calcium carbide production	Peak	July-Sept.	0.9349	0.9104	0.886	0.8697
		Other months	0.8805	0.8575	0.8346	0.8193
	Shoulder		0.592	0.577	0.562	0.552
	Valley		0.3688	0.36	0.3511	0.3452
Electricity usage for ion-exchange membrane chloralkali production	Peak	July-Sept.	0.9023	0.8778	0.8534	0.8371
		Other months	0.8499	0.8269	0.804	0.7887
	Shoulder		0.572	0.557	0.542	0.532
	Valley		0.357	0.3482	0.3393	0.3334

Source: NDRC.

Table 6B. 24. East China Electricity Price, July 2008 (continued)

5. Fujian

Sales Price, yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage							
Monthly usage <150 kWh	0.4463						
Monthly usage 151-400 kWh	0.4663						
Monthly usage 401 kWh	0.5663						
Residence with unified monitor	0.4643	0.4643					
Non-residential lighting usage	0.6112	0.5962	0.5812	0.6841	0.6691		
Commercial usage	0.8708	0.8558		0.5426	0.5276		
Non-industrial usage & General industrial usage	0.7291	0.7141	0.6991				
Large industrial usage		0.5726	0.5576	0.3530		39.00	26.00
Electricity usage for fertilizer production		0.2398	0.2148	0.4438		22.00	16.00
Electricity usage for pesticides and calcium carbide production		0.3830	0.3680	0.4410		39.00	26.00
Electricity usage for chloralkali production			0.4588		0.4288	39.00	26.00
Electricity usage for electrolytic aluminium production					0.4260	39.00	26.00
Agricultural production usage	0.2000	0.1960	0.1900				
Wholesale electricity usage	0.4684						

N.B. 1. Prices listed here, except electricity usage for agricultural production, all include 0.007 yuan for Three Gorges Dam Construction Fund.

N.B. 2. The prices listed here, except price for agriculture, fertilizer, pesticide, calcium carbide, chloralkali and electrolytic aluminium and wholesale electricity usage, all include urban public utilities charges, which is 0.008 yuan non-industrial, general industrial and large industrial usage, 0.01 yuan for residential and non-residential lighting usage, and 0.015 yuan for commercial usage.

N.B. 3. All the prices listed here, except agricultural production usage, include reservoir immigrants fund, which is 0.0083 yuan for residential usage and 0.0088 yuan for other usage.

N.B. 4. All the prices listed here, except agricultural production and residential usage, include renewable energy charges, which is 0.001 yuan for residential and fertilizer production and 0.002 yuan for others.

Source: NDRC.

Table 6B.25. Northeast China Electricity Price, July 2008

1. Liaoning

Retail Price, yuan/kWh

End-Users	<1kV	1-10kV	20kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5000	0.4900	0.4900	0.4900				
Large industrial usage		0.5010	0.4980	0.4880	0.4750	0.4650	33.00	22.00
Electricity usage for calcium carbide, ammonia, electrolysis of caustic soda and furnace phosphorus production		0.4910	0.4880	0.4780	0.4650	0.4550	33.00	22.00
Small-medium size fertilizer production		0.3740	0.3710	0.3610	0.3480		22.00	15.00
Agricultural production usage	0.4350	0.4250	0.4230	0.4150				
General industrial, commercial and other usage	0.8300	0.8200	0.8180	0.8100				
Small-medium size fertilizer production	0.5960	0.5860	0.5840	0.5760				

N.B. 1. Prices listed here all include 0.004 yuan for Three Gorges Dam Construction Fund.
for large industrial usage.

N.B. 3. Prices for drainage and irrigation, relief work and small-medium size fertilizer production should reduce 0.02 yuan based on listed prices.

Whole Price, yuan/kWh

End-users	Wholesale at County Level			Wholesale below County Level		
	1-10kV	20kV	≥35kV	1-10kV	20kV	≥35kV
Residential usage	0.3450	0.3450	0.345	0.3590	0.3590	0.359
Large industrial usage	0.4980	0.4950	0.485	0.5280	0.5250	0.515
Electricity usage for calcium carbide, ammonia, electrolysis of caustic soda and furnace phosphorus production	0.4890	0.4860	0.476	0.5190	0.5160	0.506
Small-medium size fertilizer production	0.3580	0.3550	0.345	0.3880	0.3850	0.375
Agricultural production usage	0.3560	0.3540	0.346	0.3560	0.3540	0.346
General industrial, commercial and other usage	0.6700	0.6680	0.662	0.6870	0.6850	0.679

N.B. 1. Prices listed here all include 0.004 yuan for Three Gorges Dam Construction Fund.

N.B. 2. Prices for drainage and irrigation, relief work and small-medium size fertilizer production should reduce 0.02 yuan based on listed prices.

Source: NDRC.

Table 6B.25. Northeast China Electricity Price, July 2008 (continued)

2. Jilin

Retail Price, yuan/kWh

End-Users	<1kV	1-10kV	35-66kV	66-220kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5250	0.5150	0.5150				
Non-residential lighting usage	0.8644	0.8494	0.8344				
Commercial usage	0.9115	0.8965	0.8815				
Non-industrial and general industrial usage	0.8294	0.8144	0.7994				
Small-medium size fertilizer production	0.6090	0.5990	0.5890				
Large industrial usage		0.5388	0.5238	0.5088	0.4938	30.00	21.00
Electricity usage for calcium carbide, ammonia, electrolysis of caustic soda, furnace phosphorus and ferroalloy (above 40,000 ton) production		0.4788	0.4638	0.4488	0.4338	30.00	21.00
Electricity usage for ion-exchange membrane caustic soda production		0.4648	0.4498	0.4348	0.4198	30.00	21.00
Small-medium size fertilizer production		0.3460	0.3360	0.3260	0.3160	28.00	19.00
Agricultural production usage	0.4240	0.4140	0.4040				

N.B. 1. Prices listed here all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. The prices listed here, except price for agricultural production, all include urban public utilities charges, which is 0.015 yuan for non-residential lighting, 0.007 yuan for general industrial, commercial, non-industrial and large industrial usage.

N.B. 3. All the prices listed here, except agricultural production usage, include supporting funding for reservoir immigrants, which is 0.0055 yuan for residential usage, 0.006 yuan for non-residential lighting, commercial, non-industrial, general industrial and large industrial usage.

N.B. 4. All the prices listed here, except agricultural production and residential usage, all include renewable energy charges, which is 0.001 yuan for residential usage, and 0.002 yuan for non-residential lighting, commercial, non-industrial, general industrial and large industrial usage.

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level	
	1-10kV	≥35kV
Residential usage	0.2960	0.2960
Non-residential lighting usage	0.7224	0.7224
Commercial usage	0.6025	0.6025
Large industrial usage	0.5304	0.5204
Non-industrial and general industrial usage	0.5504	0.5404
Agricultural production usage	0.3150	0.305

N.B. 1. Prices listed here all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except agricultural production usage, include supporting funding for reservoir immigrants, which is 0.0055 yuan for residential usage, 0.006 yuan for non-residential lighting, commercial, non-industrial, general industrial and large industrial usage.

N.B. 3. All the prices listed here, except agricultural production and residential usage, all include renewable energy charges, which is 0.001 yuan for residential usage, and 0.002 yuan for non-residential lighting, commercial, non-industrial, general industrial and large industrial usage.

Source: NDRC.

Table 6B.25. Northeast China Electricity Price, July 2008 (continued)

3. Heilongjiang

Retail Price, yuan/kWh

End-Users	<1kV	1-10kV	35-66kV	66-220kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.5100	0.5000	0.4900				
Non-residential lighting usage	0.8100	0.8000	0.7900				
Commercial usage	0.9080	0.8980	0.8880				
Non-industrial and general industrial usage	0.8080	0.7980	0.7880				
Large industrial usage		0.5450	0.5300	0.5200	0.5100	32.00	21.00
Electricity usage for calcium carbide, ammonia, electrolysis of caustic soda and furnace phosphorus production		0.5350	0.5200	0.5100	0.5000	32.00	21.00
Small-medium size fertilizer production		0.3700	0.3500	0.3350		22.00	15.00
Agricultural production usage	0.3690	0.3600	0.3460				

N.B. 1. Prices listed here all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except agricultural production usage, include supporting funding for reservoir immigrants, which is 0.015 yuan for residential, non-residential lighting and commercial usage; 0.007 yuan for non-industrial, general industrial and large industrial usage.

N.B. 3. Prices for drainage and irrigation, relief work and fertilizer production (production capacity below 30,000 ton) should reduce 0.02 yuan based on listed prices.

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level	
	1-10kV	≥35kV
Residential usage		
Non-residential lighting usage	0.660	0.660
Commercial usage	0.740	0.740
Non-industrial and general industrial usage	0.639	0.629
Agricultural production usage	0.296	0.286

N.B. 1. Prices listed here all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for drainage and irrigation, relief work and fertilizer production (production capacity below 30,000 ton) should reduce 0.02 yuan based on listed prices.

Source: NDRC.

Table 6B.25. Northeast China Electricity Price, July 2008 (continued)

4. East Inner Mongolia

Retail Price, yuan/kWh

End-Users	<1kV	1-10kV	35-66kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4580	0.4480	0.4480			
Non-residential lighting usage	0.7350	0.7250	0.7150			
Commercial usage	0.8260	0.8160	0.8060			
Non-industrial and general industrial usage	0.7100	0.7000	0.6900			
Large industrial usage		0.4520	0.4450	0.4370	28.00	19.00
Electricity usage for calcium carbide, ammonia, electrolysis of caustic soda and furnace phosphorus production		0.4420	0.4350	0.4270	28.00	19.00
Small-medium size fertilizer production		0.3230	0.3160	0.3080	21.00	14.00
Agricultural production usage	0.3930	0.3830	0.3730			

N.B. 1. Prices listed here, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. The prices listed here, except price for agricultural production, all include urban public utilities charges, which is 0.015 yuan for residential usage and non-residential lighting, 0.007 yuan for general industrial, commercial, non-industrial and large industrial usage.

N.B. 3. Prices for drainage and irrigation, relief work and fertilizer production (production capacity below 30,000 ton) should reduce 0.02 yuan based on listed prices.

Whole Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3280	0.3280	0.342	0.3420
Non-residential lighting usage	0.5840	0.5840	0.599	0.5990
Commercial usage	0.6010	0.6010	0.619	0.6190
Large industrial usage	0.4490	0.4390	0.481	0.4710
Non-industrial and general industrial usage	0.5760	0.5660	0.608	0.5980
Agricultural production usage	0.3190	0.3090	0.319	0.3090

N.B. 1. Prices listed here, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for drainage and irrigation, relief work and fertilizer production should reduce 0.02 yuan based on listed prices.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008

1. Guangdong

Retail Price, yuan/kWh

End-Users	Adjust Standard	Price after Adjustment	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Large industrial usage	0.0278	0.6591	27.00	18.00
Non-industrial and general industrial usage	0.0278	0.8271		
Commercial usage	0.0278	0.9934		
Residential usage	0.0000	0.6066		
Agricultural production usage	0.0000	0.5900		
Electricity usage for drainage and irrigation	0.0000	0.3580		

Source: NDRC

Table 6B.26. South China Electricity Price, July 2008 (continued)

2. Guangxi

Retail Price, yuan/kWh

			Wet Season	Dry Season	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
End-User	Voltage	Basic Price	May-Oct.	Jan.-Apr., Nov.-Dec.		
Residential Usage	<1kV	0.5283	0.4653	0.6003	31.00	24.50
	1-10kV	0.5233	0.4523	0.5943		
	≥35kV	0.5233	0.4523	0.5943		
Non-industrial lighting usage & Non-industrial and general industrial usage	<1kV	0.7995	0.7047	0.8943		
	1-10kV	0.7795	0.6872	0.8718		
	≥35kV	0.7575	0.6679	0.8471		
Commercial usage	<1kV	0.9193	0.7853	1.0533		
	1-10kV	0.9063	0.7743	1.0383		
	≥35kV	0.9013	0.7693	1.0333		
Large industrial usage						
General large industrial	1-10kV	0.5662	0.5012	0.6312		
	35-110kV	0.5462	0.4832	0.6092		
	110kV	0.5262	0.4652	0.5872		
	≥220kV	0.5112	0.4522	0.5702		
Electricity usage for electrolytic aluminium furnace ferroalloy, ammonia, calcium carbide and electrolysis of caustic soda production	1-10kV	0.5012	0.4482	0.5128		
	35-110kV	0.4812	0.4312	0.4948		
	110kV	0.4612	0.4132	0.4778		
	≥220kV	0.4462	0.3992	0.4668		
Fertilizer, pesticides and plastic sheeting production	1-10kV	0.3278	0.3278	0.3278	25.00	18.50
	35-110kV	0.3128	0.3128	0.3128		
	110kV	0.2978	0.2978	0.2978		
	≥220kV	0.2878	0.2878	0.2878		
Agricultural production usage	<1kV	0.3220	0.3220	0.3220		
	1-10kV	0.3170	0.3170	0.3170		
	≥35kV	0.3090	0.3090	0.3090		
Drainage and irrigation usage	<1kV	0.2060	0.2060	0.2060		
	1-10kV	0.2040	0.2040	0.2040		
	≥35kV	0.2010	0.2010	0.2010		

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.025 yuan for rural grid loan (for general large industrial the charge is 0.015 yuan).

N.B. 2. All the prices listed here, except agricultural daily electricity usage, include 0.0083 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production and residential usage, all include renewable energy electricity price charges, 0.001 yuan for fertilizer, pesticides and plastic sheeting production, and 0.002 yuan for others.

N.B. 4. The prices listed here, except price for agricultural production and rural daily usage, all include urban public utilities charges, which is 0.01 yuan for urban residential and commercial usage, and 0.002 yuan for others.

N.B. 5. Prices for relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

2. Guangxi

Wholesale Price, yuan/kWh

End-User	1-10 kV			≥35kV		
	Basic Price	Wet Season	Dry Season	Basic Price	Wet Season	Dry Season
Residential Usage	0.3940	0.3400	0.4480	0.3940	0.3400	0.4480
Non-industrial lighting usage & Non-industrial and general industrial usage	0.6770	0.5980	0.7560	0.6420	0.5690	0.7160
Commercial usage	0.7210	0.6150	0.8270	0.7210	0.6150	0.8270
Large industrial usage						
General large industrial	0.5320	0.4720	0.5920	0.5140	0.4560	0.5720
Electricity usage for electrolytic aluminium, furnace ferroalloy, ammonia, calcium carbide and electrolysis of caustic soda production	0.4570	0.4100	0.5040	0.4390	0.3940	0.4850
Fertilizer, pesticides and plastic sheeting production	0.2970	0.2970	0.2970	0.2840	0.2840	0.2840
Agricultural production usage	0.2360	0.2360	0.2360	0.2300	0.2300	0.2300
Drainage and irrigation usage	0.1480	0.1480	0.1480	0.1460	0.1450	0.1460

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.025 yuan for rural grid loan (for general large industrial the charge is 0.015 yuan).

N.B. 2. All the prices listed here, except agricultural daily electricity usage, include 0.0083 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 3. The prices listed here, except price for agricultural production and rural daily usage, all include urban public utilities charges, which is 0.01 yuan for urban residential and commercial usage, and 0.002 yuan for others.

N.B. 4. Prices for relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

3. Yunnan

Retail Price, yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA· month)
Residential usage	0.4830	0.4730	0.4730				
Residential cooking usage	0.3630	0.3630	0.3630				
General industrial and commercial usage	0.6910	0.6810	0.6710				
Electricity usage for small-medium fertilizer production	0.3960	0.3860	0.3760				
Large industrial usage		0.4690	0.4450	0.4330	0.4210	37.00	27.00
Electricity usage for furnace ferroalloy, ammonia, aluminum ingots, calcium carbide and furnace phosphorus production		0.4580	0.4340	0.4220	0.4100	37.00	27.00
Electricity usage for small-medium fertilizer production		0.2750	0.2530	0.2420	0.2360	30.00	20.00
Agricultural production usage	0.4170	0.4070	0.3970				
Electricity usage for drainage and irrigation in poor rural areas	0.2640	0.2590	0.2540				

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for drainage and irrigation, relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

N.B. 3. All the prices listed here, except agricultural production usage, include 0.005 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3790	0.3790	0.3750	0.3750
General industrial, commercial and other usage	0.4920	0.4820	0.4920	0.4820
Agricultural production usage	0.3420	0.3320	0.3420	0.3320
Electricity usage for drainage and irrigation in poor rural areas	0.2120	0.2070	0.2120	0.2070

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for drainage and irrigation, relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

N.B. 3. All the prices listed here, except agricultural production usage, include 0.005 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

3. Yunnan

Sales Price at Dry Season, yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Large industrial usage	<1kV					
	1-10kV	0.711	0.535	0.359		
	35-110kV	0.673	0.507	0.341	37.00	27.00
	110kV	0.655	0.493	0.332		
	≥220kV	0.636	0.479	0.323		
Electricity usage for ammonia, calcium carbide, furnace ferroalloy, aluminum ingots, electrolysis of caustic soda and furnace phosphorus production	<1kV					
	1-10kV	0.691	0.522	0.350		
	35-110kV	0.656	0.491	0.332	37.00	27.00
	110kV	0.638	0.481	0.323		
	≥220kV	0.619	0.467	0.314		
Electricity usage for fertilizer production	<1kV					
	1-10kV	0.410	0.312	0.213		
	35-110kV	0.376	0.285	0.197	30.00	20.00
	110kV	0.359	0.274	0.189		
	≥220kV	0.350	0.267	0.184		
General industrial, commercial and other usage (>100kVA)	<1kV	1.056	0.790	0.525		
	1-10kV	1.040	0.779	0.517		
	35-110kV	1.025	0.767	0.510		
	110kV			0.304		
	≥220kV			0.296		
Electricity usage for small-medium fertilizer production	<1kV	0.598	0.451	0.289		
	1-10kV	0.582	0.439			
	35-110kV	0.567	0.428			
	110kV					
	≥220kV					

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

N.B. 3. All the prices listed here include 0.005 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 5. Dry season: December, January-April; Wet season: June-October. Peak: 9:00-12:00, 18:00-23:00; Shoulder: 7:00-9:00, 12:00-18:00; Valley: 23:00-next day 7:00.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

3. Yunnan

Sales Price at Common Season, yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Large industrial usage	<1kV					
	1-10kV	0.622	0.469	0.316		
	35-110kV	0.590	0.445	0.300	37.00	27.00
	110kV	0.574	0.433	0.292		
	≥220kV	0.557	0.421	0.285		
Electricity usage for ammonia, calcium carbide, furnace ferroalloy, aluminum ingots, electrolysis of caustic soda and furnace phosphorus production	<1kV					
	1-10kV	0.607	0.458	0.309		
	35-110kV	0.575	0.434	0.293	37.00	27.00
	110kV	0.559	0.422	0.285		
	≥220kV	0.542	0.410	0.278		
Electricity usage for fertilizer production	<1kV					
	1-10kV	0.361	0.275	0.189		
	35-110kV	0.331	0.253	0.175	30.00	20.00
	110kV	0.316	0.242	0.168		
	≥220kV	0.306	0.236	0.164		
General industrial, commercial and other usage (>100kVA)	<1kV	0.922	0.691	0.460		
	1-10kV	0.909	0.681	0.454		
	35-110kV	0.895	0.671	0.447		
	110kV					
	≥220kV					
Electricity usage for small-medium fertilizer production	<1kV	0.524	0.396	0.268		
	1-10kV	0.510	0.386	0.262		
	35-110kV	0.497	0.376	0.255		
	110kV					
	≥220kV					

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

N.B. 3. All the prices listed here include 0.005 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 5. Dry season: December, January-April; Wet season: June-October. Peak: 9:00-12:00, 18:00-23:00; Shoulder: 7:00-9:00, 12:00-18:00; Valley: 23:00-next day 7:00.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

3. Yunnan

Sales Price at Wet Season, yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Large industrial usage	<1kV					
	1-10kV	0.563	0.425	0.287		
	35-110kV	0.534	0.404	0.273	37.00	27.00
	110kV	0.519	0.393	0.266		
	≥220kV	0.505	0.382	0.259		
Electricity usage for ammonia, calcium carbide, furnace ferroalloy, aluminum ingots, electrolysis of caustic soda and furnace phosphorus production	<1kV					
	1-10kV	0.550	0.415	0.281		
	35-110kV	0.521	0.394	0.267	37.00	27.00
	110kV	0.506	0.383	0.260		
	≥220kV	0.491	0.372	0.253		
Electricity usage for fertilizer production	<1kV					
	1-10kV	0.328	0.251	0.174		
	35-110kV	0.301	0.231	0.161	30.00	20.00
	110kV	0.287	0.221	0.155		
	≥220kV	0.280	0.215	0.151		
General industrial, commercial and other usage (>100kVA)	<1kV	0.833	0.625	0.418		
	1-10kV	0.821	0.616	0.412		
	35-110kV	0.809	0.607	0.406		
	110kV					
	≥220kV					
Electricity usage for small-medium fertilizer production	<1kV	0.475	0.359	0.244		
	1-10kV	0.462	0.350	0.238		
	35-110kV	0.450	0.341	0.233		
	110kV					
	≥220kV					

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Prices for relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

N.B. 3. All the prices listed here include 0.005 yuan for reservoir immigrants fund and 0.0005 yuan for local reservoir immigrants fund.

N.B. 4. All the prices listed here all include renewable energy electricity price charges, 0.001 yuan for residential and fertilizer production, and 0.002 yuan for others.

N.B. 5. Dry season: December, January-April; Wet season: June-October. Peak: 9:00-12:00, 18:00-23:00; Shoulder: 7:00-9:00, 12:00-18:00; Valley: 23:00-next day 7:00.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

4. Guizhou

Retail Price, yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA· month)
Residential usage	0.4556	0.4456	0.4456				
Low income residential	0.4086	0.4086	0.4086				
Non-residential lighting	0.7400	0.7300	0.7200				
Commercial usage	0.8670	0.8570					
Non-industrial and general industrial usage	0.6050	0.5950	0.5850				
Electricity usage for small-medium fertilizer production	0.4022	0.3922	0.3822				
Large industrial usage		0.4672	0.4472	0.4322	0.4222	45.00	30.00
Electricity usage for furnace ferroalloy, ammonia, furnace CaMgP fertilizer, calcium carbide and furnace phosphorus production		0.4572	0.4372	0.4222	0.4122	45.00	30.00
Electricity usage for small-medium fertilizer production		0.3092	0.2892	0.2742	0.2642	30.00	20.00
Agricultural production usage	0.3789	0.3689	0.3589				
Electricity usage for drainage and irrigation in poor rural areas	0.2289	0.2239	0.2189				

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund.

N.B. 2. All the prices listed here, except agricultural production usage, include charges for reservoir immigrants fund, 0.0056 yuan for residential and 0.0063 yuan for others; and 0.0005 yuan for local reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production and residential, all include renewable energy electricity price charges, 0.001 yuan for fertilizer production, and 0.002 yuan for others.

N.B. 4. The prices listed here, except price for agricultural production and rural daily usage, all include urban public utilities charges, which is 0.02 yuan for urban residential, non-residential lighting and commercial usage, and 0.008 yuan for large industrial and general industrial usage.

N.B. 5. Prices for relief work and fertilizer production should reduce 0.02 yuan based on listed prices.

N.B. 6. Areas without urban public utilities charges, sales price should reduce corresponding charges.

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

4. Guizhou

Wholesale Price, yuan/kWh

End-users	Wholesale at County Level		Wholesale below County Level	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3176	0.3176	0.3376	0.3376
Non-residential lighting	0.5470	0.5470	0.5670	0.5670
Commercial usage	0.6930	0.6930	0.7130	0.7130
Industrial and non-industrial usage	0.4550	0.4500	0.4650	0.4600
Agricultural production usage	0.3149	0.3049	0.3149	0.3049
Electricity usage for drainage and irrigation in poor rural areas	0.1819	0.1769	0.1819	0.1769

Source: NDRC.

Table 6B.26. South China Electricity Price, July 2008 (continued)

5. Hainan

Retail Price, yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	<1kV	0.6083	0.6083	0.6083	33.00	23.00
	≥1kV	0.5883	0.5883	0.5883		
Industrial, commercial and other usage	<35kV	0.9393	0.5810	0.3330		
	35kV	0.9228	0.5710	0.3275		
	110kV	0.9063	0.5610	0.3220		
	≥220kV	0.8898	0.5510	0.3165		
	<1kV	0.8000	0.8000	0.8000		
	≥1kV	0.7900	0.7900	0.7900		
Agricultural production usage	<1kV	0.4690	0.4690	0.4690		
	≥1kV	0.4640	0.4640	0.4640		

N.B. 1. Prices listed here, except electricity usage for agricultural production, all include 0.004 yuan for Three Gorges Dam Construction Fund, 0.015 yuan for urban public utilities charges, and 0.0083 yuan for large-medium reservoir immigrants fund.

N.B. 2. Prices for industrial, commercial and other usage include 0.0005 yuan for local reservoir immigrants fund.

N.B. 3. All the prices listed here, excluding price for agricultural production, all include renewable energy electricity price charges, 0.001 yuan for residential, and 0.002 yuan for others.

Source: NDRC.

Table 6B.27. Northwest China Electricity Price, July 2008

1. Shaanxi

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-Users	<1kV	1-10 kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4983	0.4983	0.4983				
Non-residential lighting usage	0.7909	0.7819	0.7819				
Commercial usage	0.8630	0.8540	0.8440				
Non-industrial and general industrial usage	0.6979	0.6909	0.6819				
Electricity usage for small-medium fertilizer production	0.3785	0.3745 0.4837	0.3705 0.4637				
Large industrial usage				0.4437	0.4387	31.00	24.00
Electricity usage for ammonia, furnace CaMgP fertilizer, calcium carbide and furnace phosphorus production		0.4737 0.4637	0.4537 0.4437	0.4337 0.4237	0.4287 0.4187	31.00 31.00	24.00 24.00
Electricity usage for calcium carbide production							
Electricity usage for small-medium fertilizer production		0.2615	0.2465	0.2365	0.2315	24.00	16.00
Agricultural production usage	0.4190	0.4110	0.4010				
Electricity usage for drainage and	0.2010	0.1990	0.1960				

Source: NDRC.

Table 6B.27. Northwest China Electricity Price, July 2008 (continued)

1. Shaanxi

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley
Large industrial usage	<1kV			
	1-10kV	0.7628	0.4837	0.2047
	35-110kV	0.7302	0.4637	0.1973
	110kV	0.6976	0.4437	0.1899
	≥220kV	0.6894	0.4387	0.1881
Electricity usage for ammonia, furnace CaMgP fertilizer, electrolysis of soda and furnace phosphorus production	<1kV			
	1-10kV	0.7465	0.4737	0.2010
	35-110kV	0.7139	0.4537	0.1936
	110kV	0.6813	0.4337	0.1862
	≥220kV	0.6731	0.4287	0.1844
Electricity usage for calcium carbide production	<1kV			
	1-10kV	0.7302	0.4637	0.1973
	35-110kV	0.6976	0.4437	0.1899
	110kV	0.6650	0.4237	0.1825
	≥220kV	0.6568	0.4187	0.1807
Electricity usage for small-medium production	<1kV			
	1-10kV	0.4073	0.2615	0.1157
	35-110kV	0.3829	0.2465	0.1101
	110kV			
	≥220kV			
Non-industrial and general industrial usage	<1kV	1.0264	0.6979	0.3693
	1-10kV	1.0159	0.6909	0.3658
	35-110kV	1.0024	0.6819	0.3613
	110kV			
	≥220kV			
Electricity usage for small-medium production	<1kV	0.5528	0.3785	0.2043
	1-10kV	0.5468	0.3745	0.2023
	35-110kV	0.5408	0.3705	0.2003
	110kV			
	≥220kV			
Commercial usage	<1kV	1.2670	0.8630	0.4589
	1-10kV	1.2535	0.8540	0.4544
	35-110kV	1.2385	0.8440	0.4494
	110kV			
	≥220kV			
Non-residential lighting usage	<1kV	1.1589	0.7909	0.4228
	1-10kV	1.4540	0.7819	0.4183
	35-110kV	1.1454	0.7819	0.4183
	110kV			
	≥220kV			
Agricultural production usage	<1kV	0.6170	0.4190	0.2220
	1-10kV	0.6050	0.4110	0.2180
	35-110kV	0.5900	0.4010	0.2130
	110kV			
	≥220kV			

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. Areas where have no urban public utilities charges, should reduce 0.02 yuan for residential, non-residential lighting and commercial usage; and 0.006 yuan for non-industrial, general industrial and large industrial usage, based on listed prices.

N.B. 3. Prices for relief work and fertilizer production should reduce 0.02 yuan (rural grid loan) based on listed prices.

Source: NDRC.

1. Shaanxi

Wholesale Price, yuan/kWh

End-users	1-10kV	35-110kV	≥110kV
Residential usage	0.2776	0.2776	
Non-residential lighting	0.4198	0.4198	
Commercial usage	0.5849	0.5849	
Large industrial usage	0.3526	0.3386	0.3216
Electricity usage for small-medium fertilizer production	0.1805	0.1695	
Non-industrial and general industrial usage	0.4567	0.4487	
Electricity usage for small-medium fertilizer production	0.2595	0.2545	
Agricultural production usage	0.3106	0.2986	
Electricity usage for drainage and	0.1236	0.1186	

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

Source: NDRC.

Table 6B.27. Northwest China Electricity Price, July 2008 (continued)

2. Gansu

Retail Price (in areas with urban public utilities charges), yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)	Charged fees for Three Gorges Dam Fund	Charged fees for urban public utilities
Residential usage	<1kV	0.7590	0.5100	0.2610			0.004	0.008
	≥1kV	0.7440	0.5000	0.2560			0.004	0.008
Non-residential usage	<1kV	1.1680	0.7827	0.3973			0.004	0.008
	≥1kV	1.1530	0.7727	0.3923			0.004	0.008
General industrial and commercial usage	<1kV	1.0809	0.7219	0.3630			0.004	
	1-10kV	1.0659	0.7119	0.3580			0.004	
	≥35kV	1.0509	0.7019	0.3530			0.004	
Large industrial usage	1-10kV	0.6220	0.4164	0.2107	38.00	27.00	0.004	0.001
	35kV	0.6070	0.4064	0.2057	38.00	27.00	0.004	0.001
	110kV	0.5920	0.3964	0.2007	38.00	27.00	0.004	0.001
							0.004	
	220kV	0.5845	0.3914	0.1982	38.00	27.00	0.004	0.001
Electricity usage for ferroalloy, calcium aluminum, electrolysis of caustic soda	1-10kV	0.5259	0.3519	0.1780	38.00	27.00	0.004	
	35kV	0.5109	0.3419	0.1730	38.00	27.00	0.004	
	110kV	0.5034	0.3369	0.1705	38.00	27.00	0.004	
							0.004	
	220kV	0.4959	0.3319	0.1680	38.00	27.00	0.004	
Electricity usage for ammonia, furnace Ca fertilizer production	1-10kV	0.4130	0.2767	0.1403	25.00	16.00	0.004	
	35kV	0.3980	0.2667	0.1353	25.00	16.00	0.004	
	110kV	0.3830	0.2567	0.1303	25.00	16.00	0.004	
	220kV	0.3755	0.2517	0.1278	25.00	16.00	0.004	
Agricultural production usage	<1kV	0.5965	0.3990	0.2020			0.004	
	1-10kV	0.5815	0.3890	0.1970			0.004	
	≥35kV	0.5665	0.3790	0.1920			0.004	
Electricity usage for drainage and in poor areas	<1kV		0.1920					
	1-10kV		0.1870					
	≥35kV		0.1820					

Source: NDRC.

2. Gansu

Retail Price (in areas without urban public utilities charges), yuan/kWh

End-users	Voltage	Peak	Shoulder	Valley	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)	Charged fees for Three Gorges Dam Fund	Charged fees for urban public utilities
Residential usage	<1kV	0.7590	0.5100	0.2610			0.004	
	≥1kV	0.7440	0.5000	0.2560			0.004	
Non-residential usage	<1kV	1.1720	0.7827	0.3933			0.004	
	≥1kV	1.1570	0.7727	0.3883			0.004	
General industrial and commercial usage	<1kV	1.0809	0.7219	0.3630			0.004	
	1-10kV	1.0659	0.7119	0.3580			0.004	
	≥35kV	1.0509	0.7019	0.3530			0.004	
Large industrial usage	1-10kV	0.6105	0.4084	0.2062	38.00	27.00	0.004	
	35kV	0.5955	0.3984	0.2012	38.00	27.00	0.004	
	110kV	0.5805	0.3884	0.1962	38.00	27.00	0.004	
	220kV	0.5670	0.3794	0.1917	38.00	27.00	0.004	
Electricity usage for ferroalloy, calcium aluminum, electrolysis of caustic soda	1-10kV	0.5259	0.3519	0.1790	38.00	27.00	0.004	
	35kV	0.5109	0.3419	0.1730	38.00	27.00	0.004	
	110kV	0.5034	0.3369	0.1705	38.00	27.00	0.004	
	220kV	0.4959	0.3319	0.1680	38.00	27.00	0.004	
Electricity usage for ammonia, furnace Ca fertilizer production	1-10kV	0.4130	0.2767	0.1403	25.00	16.00	0.004	
	35kV	0.3980	0.2667	0.1353	25.00	16.00	0.004	
	110kV	0.3830	0.2567	0.1303	25.00	16.00	0.004	
	220kV	0.3755	0.2517	0.1278	25.00	16.00	0.004	
Agricultural production usage	<1kV	0.5965	0.3990	0.2015			0.004	
	1-10kV	0.5815	0.3890	0.1965			0.004	
	≥35kV	0.5665	0.3790	0.1915			0.004	
Electricity usage for drainage and in poor areas	<1kV		0.1920					
	1-10kV		0.1870					
	≥35kV		0.1820					

Source: NDRC.

Table 6B.27. Northwest China Electricity Price, July 2008 (continued)

2. Gansu

Wholesale Price, yuan/kWh

End-users	Sales ≥80 GWh		Sales <80 GWh	
	1-10kV	≥35kV	1-10kV	≥35kV
Residential usage	0.3584	0.3584	0.3346	0.3346
Non-residential usage	0.5489	0.5489	0.4994	0.4994
General industrial and commercial usage	0.5482	0.5482	0.5126	0.5126
Large industrial usage	0.3400	0.3333	0.3198	0.3128
Electricity usage for ferroalloy, calcium carbide, aluminum, electrolysis of caustic	0.3094	0.3046	0.2944	0.2894
Electricity usage for ammonia, furnace CaMgP fertilizer production	0.2113	0.2063	0.2003	0.1931
Agricultural production usage	0.2095	0.2025	0.1842	0.1772
Electricity usage for drainage and irrigation in poor areas	0.1509	0.1458	0.1509	0.1458

Source: NDRC.

3. Qinghai

Retail Price, yuan/kWh

End-users	<1kV	1-10kV	35-110kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4459	0.4409				
Non-residential lighting	0.6046	0.5976	0.5976			
Commercial usage	0.7191	0.7091	0.6991			
Non-industrial and general industrial usage						
≥100kVA	0.5086	0.5036	0.4976		28.50	19.00
<100kVA	0.5646	0.5596	0.5546			
Large industrial usage		0.3316	0.3216	0.3116	28.50	19.00
Electricity usage for ferroalloy, calcium carbide, aluminum production		0.3242	0.3142	0.3042	28.50	19.00
Electricity usage for small-medium fertilizer production		0.1750	0.1650		28.50	19.00
Agricultural production usage	0.2981	0.2391	0.2861			
Electricity usage for drainage and irrigation in poor areas	0.2221	0.2201	0.2171			

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund.

N.B. 2. Prices listed above, excluding prices for residential, commercial, agricultural production, and drainage and irrigation, all include urban public utilities charges, which is 0.025 yuan for non-residential lighting, 0.02 yuan for non-industrial, general industrial usage and 0.015 yuan for large industrial usage.

Source: NDRC.

Table 6B.27. Northwest China Electricity Price, July 2008 (continued)

4. Ningxia

Retail Price, yuan/kWh

End-users	<1kV	1-10kV	35-110kV	110kV	≥220kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.4486	0.4486					
General industrial and commercial usage	0.7200	0.7000	0.6800				
Electricity usage for small-medium fertilizer production	0.4490	0.4390	0.4290				
Large industrial usage		0.4210	0.4010	0.3600	0.3600	38.00	30.00
Electricity usage for aluminum production at Qingtongxia				0.3610	0.3600	38.00	30.00
Electricity usage for small-medium fertilizer production		0.2950	0.2800	0.2700	0.2650	38.00	30.00
production		0.3880	0.3700	0.3500	0.3290	38.00	30.00
Electricity usage for ferroalloy and calcium carbide, production		0.3930	0.3730	0.3630	0.3530	38.00	30.00
Agricultural production usage	0.4270	0.4170	0.4070				
Electricity usage for drainage and irrigation in poor areas	0.2560	0.2460	0.2360				

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund and 0.02 yuan for rural grid loan.

N.B. 2. All the prices listed here, except prices for residential and agricultural production, all include renewable energy electricity price charges, 0.001 yuan for fertilizer production, and 0.002 yuan for others.

Source: NDRC.

5. Xinjiang-Urumqi and Changji Hui Autonomous Prefecture

Retail Price, yuan/kWh

End-users	<1kV	1-10kV	35-110kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage						
Urumqi urban areas	0.4790	0.4690				
Urumqi rural areas and Changji	0.5500					
Non-residential lighting	0.5680	0.5610				
Commercial usage	0.6890	0.6840	0.6790			
Non-industrial and general industrial usage	0.5190	0.5160	0.5120			
Electricity usage for small-medium fertilizer production	0.3690	0.3670	0.3650			
Large industrial usage		0.3820	0.376	0.3630	33.00	26.00
Electricity usage for ferroalloy, calcium carbide, ammonia, furnace CaMgP fertilizer, furnace phosphorus and electrolysis of caustic soda production		0.3650	0.3600	0.3500	33.00	26.00
Electricity usage for ion-exchange membrane chloralkali production		0.3190	0.3140	0.3040	33.00	26.00
Electricity usage for small-medium fertilizer production		0.1780	0.1750	0.1720	25.00	18.00
Agricultural production usage	0.2260	0.2240	0.2210			

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund.

N.B. 2. Prices for non-industrial, general industrial and large industrial include 0.011 yuan as urban public utilities charges.

Source: NDRC.

Table 6B.27. Northwest China Electricity Price, July 2008 (continued)

5. Xinjiang-Turpan Areas

Retail Price, yuan/kWh

End-users	<1kV	1-10kV	35-110kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.590	0.580				
Non-residential lighting	0.692	0.685				
Commercial usage	0.845	0.840	0.835			
Non-industrial and general industrial usage	0.565	0.562	0.558			
Large industrial usage	Electricity usage for small-medium fertilizer production	0.414	0.412	0.410		
			0.390	0.384	0.371	33.00
	Electricity usage for ferroalloy, calcium carbide, ammonia, furnace CaMgP fertilizer, furnace phosphorus and electrolysis of caustic soda production		0.374	0.369	0.359	33.00
	Electricity usage for ion-exchange membrane chloralkali production		0.319	0.314	0.304	33.00
	Electricity usage for small-medium fertilizer production		0.210	0.207	0.204	25.00
Agricultural production usage	0.322	0.320	0.317			18.00

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund.

N.B. 2. Prices for non-industrial, general industrial and large industrial include 0.011 yuan as urban public utilities charges.

Source: NDRC.

5. Xinjiang-Kuitun Areas

Retail Price, yuan/kWh

End-users	<1kV	1-10kV	35-110kV	≥110kV	Max. Demand Charge (yuan/kW · month)	Transformer Capacity (yuan/kVA · month)
Residential usage	0.459	0.449				
Non-residential lighting	0.585	0.578				
Commercial usage	0.950	0.945	0.940			
Non-industrial and general industrial usage	0.495	0.484	0.480			
Large industrial usage	Electricity usage for small-medium fertilizer production	0.349	0.347	0.345		
			0.373	0.366	0.353	33.00
	Electricity usage for ferroalloy, calcium carbide, ammonia, furnace CaMgP fertilizer, furnace phosphorus and electrolysis of caustic soda production		0.365	0.360	0.350	33.00
	Electricity usage for ion-exchange membrane chloralkali production		0.319	0.314	0.304	33.00
	Electricity usage for small-medium fertilizer production		0.158	0.155	0.152	25.00
Agricultural production usage	0.206	0.204	0.201			18.00

N.B. 1. Prices listed here, except electricity usage for drainage and irrigation, all include 0.004 yuan for Three Gorges Dam Construction Fund.

N.B. 2. Prices for non-industrial, general industrial and large industrial include 0.011 yuan as urban public utilities charges.

Source: NDRC.

Table 6C.1. Cost Buildup for Datong Lump Coal Shipped to Shanghai and Guangzhou, March 1992

Cost Item	Charge (yuan/t)
A. Minemouth coal cost	77.93
B. Shipping & Handling Costs	
1. Minemouth to railhead loading	20.25
2. Rail shipping cost, Datong to Qinhuangdao	31.19
3. Railroad charges:	
Shipping charge	0.95
Maintenance charge	2.65
Water resource charge	1.00
Car routing charge	0.78
Interest	0.22
Stamp tax	0.01
Subtotal	5.58
4. Ocean shipping cost, Qinhuangdao to Shanghai (dependent on ship type)	6.51 - 13.21
5. Qinhuangdao port charges:	
Transshipment charge	5.33
Loading charge	23.15
Unloading charge	2.05
Terminal charge	2.05
Port service charge	2.05
Storage charge	0.05
Dust abatement fee	0.30
Port construction fee	1.50
Thawing fee	0.70
Crane charge	16.30
Loan repayment	0.60
Subtotal	55.58
6. Subtotal shipping costs at port of Qinhuangdao	119.11 - 125.81
<i>To Shanghai:</i>	
7. Port of Shanghai port service charge	6.50
8. Port of Shanghai comprehensive charges*	17.23 - 18.28
9. Subtotal shipping costs at port of Shanghai	142.84 - 150.59
<i>To Guangzhou:</i>	
10. Ocean shipping cost, Qinhuangdao to Guangzhou	37.51
11. Port of Guangzhou port service charge	6.50
12. Port of Guangzhou comprehensive charges ^[1]	21.68 - 22.43
13. Subtotal shipping costs at port of Guangzhou	184.80 - 192.25
C. Final Coal Costs at Destination	
1. Port of Shanghai	220.77 - 228.52
2. Port of Guangzhou	262.73 - 270.18

[1] Comprehensive port charges include bank interest, profit, management fees, and normal depreciation.

Source: Wang, 1995.

Table 6C.2. Coal Prices,^[1] Local Markets (yuan/t)

Year	Month	Qinhuangdao, Hebei		Shijiusuo, Shandong		Shanghai		Guangzhou, Guangdong		Nanjing, Jiangsu		Changsha, Hunan		Wuhan, Hubei	
		B	A	B	A	B	A	B	A	B	A	B	A	B	A
1989	Nov					250	225					106	105	198	
1990	Feb					250	225								
	Mar							230	195						
	Jul					195	170								
	Nov					185	160								
1991	Nov	139-140	100-105			150-152	115-120								
1992	May							240	204						
	Jun	172		139	124	180	156	228	175	185	170			128	125
	Jul					176	149								
	Jul	167		135	124	190	166	228	175	220	300			128	124
	Sep	170		148	145	190	166	228	190	195	170			153	145
	Oct	167		148	145	190	166	228	190	195	170			153	145
	Nov	166		158	147	190	160	228	190	195	170			153	145
	Mar	177		158	147			238		230	170			163	164
	Mar	185		158	147	205	181	243	215	230	170			163	164
	May	189		157	146	218	185	253	230	230	190			163	164
1993	May	190		157	146	215	185	258	230	230	180			163	164
	Jun	193		154	145	215	185	268	238	240	195			163	164
	Jul	203		154	145	230	205	308	270	230	190			163	164
	Nov	202		178	155	240	215	318	275	240	190			159	156
	Nov	153-160													
	Dec	153-161													
	Dec	152-160						328	292						
	Jan	157-169													
	Feb					240		285							
	Mar					240	190								
	Mar					290		300							
1994	Mar					258	215								
	Mar	163-204													
	May					303	248	314	290					213	268
	May					245	205								
	May	163-195													
	Jun	190-195													
	Jun	190-195	165-171			300	248	310	271					213	268
	Jul	185-194	161-166			315		340	282						
	Jul	185-193	163-166												
	Aug					225	197			262	210				
	Aug	189-197	163-165			236-238		256-260		245					
	Aug	181-184	161-165			231-233		230-233						188	320
	Aug	185-187	161-165												
	Sep	189-192				222-225		257-260		245					
	Sep	185-187	163-165												
	Nov	187-189	166-170			315									

[1] See table 6B.14 for exchange rate between US dollars and RMB yuan. Ranges of prices represent highest and lowest negotiated prices.

B = bituminous coal

A = anthracite

Source: Energy Research Institute.

Table 6C.3. Average Price of Coal in Various Cities (yuan/t)

City	Province	November 1992	August 1993	June 1994
Datong	Shanxi	114	224	236
Dalian	Liaoning	185	250	255
Shanghai	Shanghai	190	230	230
Nanjing	Jiangsu	195	230	262
Zhangjiagang	Jiangsu	215	285	310
Ningbo	Zhejiang	191	251	258
Hangzhou	Zhejiang		275	285
Wuhan	Hubei	153	163	200
Xiamen	Fujian	235	260	340
Guangzhou	Guangdong	228	308	280

1. Market prices are posted prices of local Fuels Corporations

2. Coal types: Dalian price is for Fuxin bituminous coal, Wuhan price is for Luo'an bituminous coal, others are generally for Datong mixed coal.

3. June 1994 coal prices include value-added tax.

Source: Energy Research Institute; Wang, 1995.

Table 6C.4. Average Retail Prices of Coal and Oil Products in Major Cities, December 1994 (yuan/t)

City	bituminous coal	anthracite	70 gasoline	90 gasoline	93 gasoline	CA40 lube	0 diesel	-10 diesel	QC40 lube	CA30 lube	CA40 lube	heavy oil	machine oil	kerosene
Beijing							2,280							
Tianjin	220			2,800			2,156	1,950				850		
Shenyang, Liaoning	255	230	2,490	2,630			2,150	2,250				920		
Changchun, Jilin	180	170	2,750	2,850			2,350					850		
Harbin, Heilongjiang	151													
Taiyuan, Shanxi	195	200	2,780	2,930				2,250				900		
Xi'an, Shaanxi	120	265	2,800	2,940			2,300	2,000				950		
Zhengzhou, Henan	150	120	2,750	2,888			2,300	2,461				1,100		
Qingdao, Shandong	222	202	2,180	2,280			2,000	2,100				868		
Wuxi, Jiangsu	265	235												
Shanghai	300	248		2,878			2,308	2,100				925		
Hangzhou, Zhejiang	296	266	2,500	2,600			2,162	2,360						
Wuhan, Hubei	188	320	2,900	3,000								1,400		
Guangzhou, Guangdong	310	271		2,570			2,270					1,138		
Chongqing, Sichuan			2,500	2,550										
Chengdu, Sichuan	199	159	2,400	2,640			2,050							
Jishui County, Jiangxi (price to agricultural users)														
wholesale			2,524				2,302				4,600			2,329
retail			2,800				2,508				5,800			2,580
Chongqing, Sichuan (price to agricultural users)														
wholesale			2,420	2,630	2,780	3,900	2,150		4,050	4,100			4,020	
retail			2,800	3,000	3,150	4,500	2,500		4,700	4,750			6,250	

Source: Energy Research Institute.

Table 6C.5. Average Wholesale Electricity Prices by Region^[1] (yuan/MWh)

	1990	1991	1992	1993
East China	135.53	146.37	172.02	233.54
North China	116.65	131.38	147.34	217.40
Northeast China	106.40	132.63	140.44	202.14
Central China	115.93	125.18	143.74	188.09
Northwest China	96.88	107.81	119.92	154.52
Shandong	104.30	115.03	122.51	183.14
Sichuan	110.43	119.38	135.19	154.84
Yunnan	108.14	116.49	121.81	165.72
Guizhou	106.17	125.49	133.76	147.34
Guangxi	151.75	172.26	177.34	118.31
Fujian	127.05	129.59	149.49	217.68
Guangdong	136.66	138.79	146.55	
National Average	118.08	132.32	145.43	194.32

[1] The figures in this table represent wholesale price by generators to the grid.

Source: Energy Research Institute.

Table 6C.6. Average Market Prices for Fuels in 35 Major Cities (yuan/t)

1994		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Anthracite	Anthracite	206.42	214.18	200.61	196.00	210.82	194.38	199.61	201.48	202.33	189.24	189.88	203.00	200.66
Bituminous Coal	Coking Coal	296.86	308.14	287.63	291.21	284.56	282.54	278.43	305.43	304.57	617.85	227.38	327.50	317.68
Bituminous Coal	Ordinary Bituminous Coal	205.21	207.79	218.85	223.13	227.01	220.99	219.41	227.41	233.91	221.64	215.81	218.54	219.97
Coke	Metallurgical Coke	542.27	554.33	488.24	557.13	546.04	552.14	554.15	711.65	560.69	562.28	562.49	578.00	564.12
Gasoline	#70 Auto Gasoline	2,787.98	2,763.33	2,758.54	2,771.16	2,779.98	2,745.28	2,724.75	2,736.15	2,712.44	2,656.30	2,676.61	2,681.05	2,732.80
Diesel	#0 Light Diesel	2,396.08	2,362.63	2,390.99	2,307.49	2,347.67	2,336.16	2,321.51	2,279.56	2,298.98	2,281.58	2,301.74	2,306.16	2,327.55
Heavy (Fuel) Oil	#250 Heavy (Fuel) Oil	901.33	958.42	964.89	974.17	964.09	967.03	942.68	956.73	944.00	938.86	947.00	1,003.60	1,049.40
1995														
Anthracite	Anthracite	198.04	195.12	196.30	213.56	211.64	205.06	206.60	205.20	214.66	208.55	212.19	208.27	206.27
Bituminous Coal	Coking Coal	280.20	272.75	287.35	314.43	347.08	321.00	336.07	324.06	368.46	365.54	352.15	324.58	324.47
Bituminous Coal	Ordinary Bituminous Coal	202.27	196.04	203.44	219.54	216.89	221.89	222.86	217.65	226.62	223.56	223.70	226.21	216.72
Coke	Metallurgical Coke	545.85	562.30	549.31	557.33	575.47	601.50	592.43	579.93	599.98	596.55	586.59	606.61	579.49
Gasoline	#70 Auto Gasoline	2,645.66	2,609.42	2,579.35	2,609.38	2,640.07	2,651.38	2,636.49	2,596.78	2,615.04	2,599.22	2,627.42	2,600.34	2,617.55
Gasoline	#90 Auto Gasoline	2,795.69	2,769.70	2,766.64	2,757.49	2,766.39	2,790.28	2,783.14	2,757.50	2,753.14	2,766.03	2,801.16	2,792.80	2,775.00
Diesel	#0 Light Diesel	2,309.05	2,274.69	2,259.73	2,259.61	2,279.14	2,297.44	2,288.97	2,256.41	2,275.96	2,523.14	2,279.77	2,266.21	2,297.51
Heavy (Fuel) Oil	#250 Heavy (Fuel) Oil	996.67	1,003.83	1,043.76	1,458.70	1,479.81	1,020.41	1,021.25	1,006.25	991.90	998.00	998.00	1,002.33	1,085.33
1996														
Anthracite	Anthracite	212.14	214.79	220.20	220.34	222.55	227.25	231.56	227.08	239.57	227.15	220.92	227.50	224.25
Bituminous Coal	Coking Coal	322.77	308.63	315.55	318.66	332.03	323.17	348.42	341.51	336.92	334.21	358.23	312.22	329.36
Bituminous Coal	Ordinary Bituminous Coal	226.88	224.81	234.50	235.39	236.60	245.21	242.77	243.11	245.24	249.67	235.91	235.61	237.98
Coke	Metallurgical Coke	609.82	615.35	623.96	621.30	624.24	629.68	623.22	628.74	627.13	633.07	626.42	598.73	621.81
Gasoline	#70 Auto Gasoline	2,628.27	2,615.85	2,623.69	2,598.06	2,581.12	2,581.34	2,598.09	2,619.36	2,609.31	2,605.92	2,623.30	2,683.83	2,614.01
Diesel	#0 Light Diesel	2,275.05	2,262.24	2,271.57	2,257.55	2,270.32	2,280.20	2,287.46	2,281.89	2,294.46	2,316.74	2,360.43	2,513.72	2,305.97
Heavy (Fuel) Oil	#250 Heavy (Fuel) Oil	1,005.63	948.50	981.86	1,035.08	1,064.16	1,060.00	1,142.34	1,094.94	1,098.53	1,096.11	1,135.49	1,264.13	1,077.23
1997														
Bituminous Coal	Grade 9 Washed Coking Coal	272.96	272.08	247.59	286.93	288.73	288.62	350.35	357.11	356.64	333.48	306.57	320.28	309.03
Bituminous Coal	Mixed Coal for Industrial Boilers, dia. < 50mm	253.29	253.93	253.31	248.95	250.06	245.18	247.02	242.76	245.00	247.35	247.12	243.98	248.16
Coke	Metallurgical Coke, dia. > 40mm	599.31	596.49	590.68	601.85	597.57	600.40	603.25	608.34	599.79	593.76	578.65	593.46	596.96
Gasoline	#90 Automotive Gasoline	2,853.05	2,861.03	2,859.28	2,848.65	2,860.56	2,852.62	2,839.57	2,819.12	2,841.49	2,842.14	2,826.65	2,824.02	2,844.03
Diesel	#0 Diesel (public transport use)	2,627.96	2,642.01	2,591.14	2,588.09	2,574.54	2,560.98	2,506.26	2,493.20	2,497.64	2,491.51	2,484.84	2,479.86	2,544.84
Diesel	# - 20 Diesel	2,824.81	2,775.69	2,830.66	2,869.86	2,885.83	2,865.36	2,870.88	2,869.06	2,863.29	2,858.86	2,883.08	2,836.94	2,852.86
Heavy (Fuel) Oil	Fuel Use	1,169.56	1,259.05	1,381.05	1,320.33	1,208.14	1,177.20	1,127.77	1,131.58	1,119.46	1,120.59	1,145.84	1,140.88	1,191.79
Electricity for Ordinary Industry	Nationally Regulated Single Price, <250 VA	37.14	38.58	38.62	36.97	38.24	38.21	42.01	41.39	42.58	41.58	42.32	40.87	39.88
Natural Gas	From Gas Fields (industrial use)	1.80	1.99	1.75	2.02	2.01	2.11	2.14	2.13	2.07	1.97	2.01	1.99	2.00
Coal Gas	Coke Oven Gas (industrial use)	1.13	1.15	1.18	1.20	1.20	1.20	1.15	1.13	1.14	1.13	1.15	1.15	1.16

N.B. Prices for #70 auto gasoline are not available for 1997, but other fuel categories were added, giving a more detailed picture of fuel price conditions.

Source: Energy Research Institute; BECon.

Table 6C.7. Retail Electricity Price by Sector, 1994 (yuan/kWh)

	Shenzhen, Guangdong	Jinan, Shandong
Industry	0.60	0.17 - 0.22
Agriculture		0.22
Commercial	0.70	0.35
Residential	0.50	0.22

Source: Energy Research Institute.

Table 6C.8. Electricity Supply Surcharges for Transmission and Distribution,^[1] 1993

Customer Line Voltage	Electricity Supply Surcharge (yuan/kVA)
380 V & 220 V	500-550
10 kV	440-450
35 kV	300-330
63 kV	200-220
110 kV	150-180

[1] Charged to customers and used for transmission and distribution network (110 kV) construction projects.

Source: Wang, 1995.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.310	0.300	0.300			
Non-residential illumination	0.514	0.502	0.501			
Non-industry & ordinary industry ^[2]	0.471	0.463	0.452			
Large-scale industry ^[2]		0.349	0.337			
in which: calcium carbide, lime, ammonia, & phosphorus		0.339	0.327	0.327	18	12
Commercial	0.514	0.502	0.501	0.317	18	12
Agriculture	0.396	0.387	0.374			
Irrigation in poor rural counties	0.236	0.234	0.231			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "non-industry & ordinary industry" and "large-scale industry" electricity prices. If non-industry prices are used, then 70% of the listed price is charged, if large industry prices are used, then 64.5% of the listed price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Peak Price Schedule (yuan/kWh)

Large-Scale Industrial						
	Non-Preferential Price			Preferential Price ^[1]		
Period	1-10 kV	35 kV	≥110 kV	1-10 kV	35 kV	≥110 kV
Peak	0.502	0.488	0.477	0.481	0.467	0.456
Non-peak	0.349	0.337	0.327	0.339	0.327	0.317
Low demand	0.210	0.200	0.190	0.210	0.200	0.190
Non-Industry & Ordinary Industry						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.762	0.755	0.743			
Non-peak	0.471	0.463	0.452			
Low demand	0.200	0.190	0.180			
Commercial						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.850	0.835	0.833			
Non-peak	0.514	0.502	0.501			
Low demand	0.200	0.190	0.190			
Non-Residential Illumination						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.850	0.835	0.833			
Non-peak	0.514	0.502	0.501			
Low demand	0.200	0.190	0.190			
Agriculture						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.598	0.59	0.574			
Non-peak	0.396	0.387	0.374			
Low demand	0.210	0.200	0.190			

[1] For manufacturers of calcium carbide, electrolytic process caustic soda, yellow phosphorous, and synthetic ammonia.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

3. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.235	0.235	0.257	0.257
Nonresidential illumination	0.416	0.416	0.456	0.456
Non-industry & ordinary industry	0.366	0.358	0.395	0.395
Commercial	0.416	0.416	0.456	0.456
Agriculture	0.328	0.315	0.359	0.359
Irrigation in poor rural counties	0.187	0.182		

Source: EB, China Price Yearbook, 1998.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

4. Wholesale Peak Price Schedule (yuan/kWh)

Customer Type	Period	Wholesale Price			
		County Level		Under County Level	
		1-10 kV	≥35 kV	1-10 kV	≥35 kV
Non-industry & ordinary industry	Peak	0.616	0.605	0.676	0.676
	Non-peak	0.366	0.358	0.395	0.395
	Low demand	0.130	0.125	0.130	0.130
Agriculture	Peak	0.539	0.518	0.602	0.602
	Non-peak	0.328	0.315	0.359	0.359
	Low demand	0.130	0.125	0.130	0.130
Commercial	Peak	0.719	0.719	0.791	0.791
	Non-peak	0.416	0.416	0.456	0.456
	Low demand	0.130	0.130	0.140	0.140
Non-residential illumination	Peak	0.719	0.719	0.791	0.791
	Non-peak	0.416	0.416	0.456	0.456
	Low demand	0.130	0.130	0.140	0.140

Source: EB, China Price Yearbook, 1998.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule

Customer Category	Electricity Price (yuan/kWh)					Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand	Transformer Capacity
						(yuan/kW/month)	(yuan/kVA/month)
Residential	0.373	0.363	0.363				
Non-residential	0.567	0.557	0.557				
Commercial illumination	0.573	0.563	0.563				
Non-industry & ordinary industry	0.522	0.512	0.502				
medium & small fertilizer ^[2]	0.358	0.352	0.344				
Large-scale industry		0.385	0.370	0.360	0.355	22.5	15.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.375	0.360	0.350	0.345	22.5	15.0
medium & small fertilizer		0.252	0.244	0.238	0.233	18.0	12.0
Agriculture	0.445	0.435	0.425				
Irrigation in poor rural counties	0.258	0.255	0.252				

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Electricity prices for small and medium ammonia and other fertilizer plants are detailed in subtable 5.

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.007 yuan/kWh for the Three Gorges construction fund. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower. For those consumers who are not charged the central electricity construction fund, prices are 0.02 yuan/kWh lower than those in the tables. For licensed synthetic ammonia producers electricity consumption, rates are according to subtable 5. For electrolytic aluminum enterprises with production capacities over 50 kt/yr, prices are determined by national regulations (State Development Planning Commission [1999]997). For ferro-alloy manufacturers with production capacity over 40 kt/yr and chlorine-caustic soda manufacturers with production capacity over 30 kt/yr, prices are 0.02 yuan/kWh lower than for other types of enterprises.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Wholesale^[1] Price Schedule (yuan/kWh)

Customer Category	Wholesale II		Wholesale III	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.293	0.293	0.313	0.313
Non-residential illumination	0.468	0.468	0.508	0.508
Commercial	0.472	0.472	0.512	0.512
Non-industry & ordinary industry	0.412	0.402	0.442	0.442
Agricultural production	0.371	0.361	0.401	0.401
Agricultural irrigation	0.206	0.201		

[1] Wholesale categories (I, III, and III) are not defined in the original source.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Peak Price Schedule (yuan/kWh)

		Period ^[1]			
		Peak	Ordinary	Off-peak	
Customer Category	Connection				
Large industry ^[2]	No discount	1-10 kV	0.542	0.385	0.242
		35-110 kV	0.524	0.370	0.231
		110 kV	0.513	0.360	0.221
		>220 kV	0.505	0.355	0.218
	Discount	1-10 kV	0.521	0.375	0.242
		35-110 kV	0.503	0.360	0.231
		110 kV	0.492	0.350	0.221
		>220 kV	0.484	0.345	0.218
Non-industry & ordinary industry	<1 kV	0.825	0.522	0.240	
	1-10 kV	0.815	0.512	0.229	
	>35 kV	0.804	0.502	0.219	
Commercial	<1 kV	0.925	0.573	0.244	
	1-10 kV	0.913	0.563	0.235	
	>35 kV	0.912	0.563	0.235	
Non-residential	<1 kV	0.916	0.567	0.241	
	1-10 kV	0.904	0.557	0.232	
	>35 kV	0.903	0.557	0.232	
Agriculture	<1 kV	0.658	0.445	0.249	
	1-10 kV	0.648	0.435	0.238	
	>35 kV	0.637	0.425	0.230	

[1] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

[2] "Large industry" refers to enterprises producing calcium carbide, electrolytic-process caustic soda, ammonia (except small and medium plants, for which see subtable 5), and yellow phosphorus.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

4. Wholesale^[1] Peak Price Schedule (yuan/kWh)

Customer Category	Period ^[2]	Wholesale II		Wholesale III	
		1-10 kV	35 kV	1-10 kV	35 kV
Industry & non-industry	Peak	0.671	0.657	0.733	0.733
	Ordinary	0.412	0.402	0.442	0.442
	Off-peak	0.167	0.161	0.168	0.168
Agriculture	Peak	0.590	0.573	0.651	0.651
	Ordinary	0.371	0.361	0.401	0.401
	Off-peak	0.166	0.162	0.165	0.165
Commercial	Peak	0.789	0.789	0.861	0.861
	Ordinary	0.472	0.472	0.512	0.512
	Off-peak	0.172	0.172	0.182	0.182
Non-residential	Peak	0.783	0.783	0.855	0.855
	Ordinary	0.468	0.468	0.508	0.508
	Off-peak	0.170	0.170	0.180	0.180

[1] Wholesale categories (I, III, and III) are not defined in the original source.

[2] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.1. Beijing Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

5. Price Schedule to Small and Medium Fertilizer Plants

	Enterprise Category	Connection	Electricity Price ^[2] (yuan/kW)			Basic Electricity Charge	
			Peak	Ordinary	Off-peak	Transformer Capacity (yuan/kVA/month)	Maximum Demand (yuan/kW/month)
Direct Supply	Non-industry & ordinary	<1 kV	0.560	0.357	0.167		
	industry	1-10 kV	0.556	0.351	0.160		
		>35 kV	0.547	0.343	0.153		
	Large industry	1-10 kV	0.351	0.252	0.163	12	18
		35 kV	0.342	0.244	0.156	12	18
		110 kV	0.335	0.238	0.150	12	18
		220 kV	0.328	0.233	0.150	12	18
	Synthetic ammonia	1-10 kV	0.337	0.246	0.163	12	18
		35 kV	0.328	0.238	0.156	12	18
		110 kV	0.321	0.231	0.150	12	18
		220 kV	0.321	0.231	0.150	12	18
Wholesale ^[1]	Wholesale I	1-10 kV	0.458	0.283	0.118		
		>35 kV	0.451	0.278	0.115		
	Wholesale II	1-10 kV	0.500	0.304	0.118		
		>35 kV	0.500	0.304	0.118		

[1] Wholesale categories (I, III, and III) are not defined in the original source.

[2] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.310	0.300	0.300			
Non-residential illumination	0.475	0.463	0.463			
Non-industry & ordinary industry ^[2]	0.434	0.425	0.414			
Large-scale industry ^[2]		0.323	0.311	0.301	18	12
in which: calcium carbide, lime, ammonia, phosphorus		0.313	0.301	0.291	18	12
Commercial	0.475	0.463	0.463			
Agriculture	0.368	0.359	0.346			
Irrigation in poor rural counties	0.154	0.152	0.149			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "non-industry & ordinary industry" and "large-scale industry" electricity prices. If non-industry prices are used, then 70% of the listed price is charged, if large industry prices are used, then 64.5% of the listed price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Peak Price Schedule (yuan/kWh)

Large-Scale Industrial						
Period	Non-Preferential Price			Preferential Price ^[1]		
Peak	0.470	0.455	0.445	0.449	0.435	0.424
Non-peak	0.323	0.311	0.301	0.313	0.301	0.291
Low demand	0.190	0.180	0.170	0.190	0.180	0.170
Non-Industrial & Ordinary Industrial						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.708	0.694	0.677			
Non-peak	0.434	0.425	0.414			
Low demand	0.180	0.175	0.170			
Commercial						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.792	0.772	0.772			
Non-peak	0.475	0.463	0.463			
Low demand	0.180	0.175	0.175			
Non-Residential Illumination						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.792	0.772	0.772			
Non-peak	0.475	0.463	0.463			
Low demand	0.180	0.175	0.175			
Agricultural						
	<1 kV	1-10 kV	≥35 kV			
Peak	0.572	0.558	0.537			
Non-peak	0.368	0.359	0.346			
Low demand	0.180	0.175	0.170			

[1] For manufacturers of calcium carbide, electrolytic process caustic soda, yellow phosphorous, and synthetic ammonia.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

3. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price	
	County Level	Under County Level
Residential	0.238	0.238
Nonresidential illumination	0.392	0.392
Non-industry & ordinary industry	0.342	0.335
Commercial	0.392	0.392
Agriculture	0.316	0.302
Irrigation in poor rural counties	0.115	0.110

Source: EB, China Price Yearbook, 1998.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

4. Wholesale Peak Price Schedule (yuan/kWh)

Customer Type	Period	Wholesale Price			
		County Level		Under County Level	
		1-10 kV	≥35 kV	1-10 kV	≥35 kV
Non-industrial & ordinary Industrial	Peak	0.579	0.570		
	Non-peak	0.342	0.335		
	Low demand	0.120	0.115		
Agriculture	Peak	0.526	0.502		
	Non-peak	0.316	0.302		
	Low demand	0.120	0.115		
Commercial	Peak	0.682	0.682		
	Non-peak	0.392	0.392		
	Low demand	0.120	0.120		
Non-residential illumination	Peak	0.682	0.682		
	Non-peak	0.392	0.392		
	Low demand	0.120	0.120		

Source: EB, China Price Yearbook, 1998.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand	Transformer Capacity
						(yuan/kW/month)	(yuan/kVA/month)
Residential	0.372	0.362	0.362				
Non-residential	0.535	0.525	0.525				
Commercial illumination	0.537	0.527	0.527				
Non-industry & ordinary industry	0.488	0.478	0.468				
Medium & small fertilizer ^[2]	0.359	0.349	0.339				
Large-scale industry		0.359	0.344	0.334	0.329	22.5	15.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.349	0.334	0.324	0.319	22.5	15.0
medium & small fertilizer		0.237	0.227	0.217	0.212	22.5	15.0
Agriculture	0.419	0.409	0.399				
Irrigation in poor rural counties	0.178	0.175	0.172				

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Electricity prices for small and medium ammonia and other fertilizer plants are detailed in subtable 5.

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.007 yuan/kWh for the Three Gorges construction fund. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower. For electrolytic aluminum enterprises with production capacities over 50 kt/yr, prices are determined by national regulations (State Development Planning Commission [1999]997). For ferro-alloy manufacturers with production capacity over 40 kt/yr and chlorine-caustic soda manufacturers with production capacity over 30 kt/yr, prices are 0.02 yuan/kWh lower than for other types of enterprises.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Wholesale^[1] Price Schedule (yuan/kWh)

Electricity utilization category	Wholesale II		Wholesale III	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.295	0.295		
Non-residential illumination	0.447	0.447		
Commercial	0.449	0.449		
Non-industry & ordinary industry	0.394	0.384		
Agricultural production	0.362	0.352		
Agricultural irrigation	0.135	0.130		

[1] Wholesale categories (I, III, and III) are not defined in the original source.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Peak Price Schedule (yuan/kWh)

Customer Category	Connection	Period ^[1]		
		Peak	Ordinary	Off-peak
Large industry ^[2]	No discount	1-10 kV	0.511	0.359
		35-110 kV	0.491	0.344
		110 kV	0.481	0.334
		>220 kV	0.472	0.329
	Discount	1-10 kV	0.490	0.349
		35-110 kV	0.471	0.334
		110 kV	0.460	0.324
		>220 kV	0.451	0.319
Non-industry & ordinary industry	<1 kV	0.776	0.488	0.221
	1-10 kV	0.760	0.478	0.215
	>35 kV	0.745	0.468	0.211
Commercial	<1 kV	0.872	0.537	0.225
	1-10 kV	0.855	0.527	0.221
	>35 kV	0.855	0.527	0.221
Non-residential	<1 kV	0.869	0.535	0.224
	1-10 kV	0.852	0.525	0.220
	>35 kV	0.852	0.525	0.220
Agriculture	<1 kV	0.635	0.419	0.219
	1-10 kV	0.620	0.409	0.214
	>35 kV	0.603	0.399	0.210

[1] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

[2] "Large industry" refers to enterprises producing calcium carbide, electrolytic-process caustic soda, ammonia (except small and medium plants, for which see subtable 5), and yellow phosphorus.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

4. Wholesale^[1] Peak Price Schedule (yuan/kWh)

Customer Category	Period ^[2]	Wholesale I	
		1-10 kV	>35 kV
Industry & non-industry	Peak	0.644	0.630
	Ordinary	0.394	0.384
	Off-peak	0.160	0.153
Agriculture	Peak	0.582	0.564
	Ordinary	0.362	0.352
	Off-peak	0.157	0.154
Commercial	Peak	0.754	0.754
	Ordinary	0.449	0.449
	Off-peak	0.162	0.162
Non-residential	Peak	0.751	0.751
	Ordinary	0.447	0.447
	Off-peak	0.161	0.161

[1] Wholesale categories (I, III, and III) are not defined in the original source.

[2] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.2. Tianjin Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

5. Price Schedule to Small and Medium Fertilizer Plants

Customer Category	Period ^[2]	Electricity Price (yuan/kW)			Basic Electricity Charge	
		Peak	Ordinary	Off-peak	Transformer capacity (yuan/KVA/month)	Max demand (yuan/kW/month)
Direct Supply	Non-industry & ordinary industry	<1 kV	0.577	0.359	0.156	
		1-10 kV	0.562	0.349	0.150	
		>35 kV	0.546	0.339	0.145	
	Large industry	1-10 kV	0.343	0.237	0.142	15.0
		35 kV	0.329	0.227	0.134	15.0
		110 kV	0.318	0.217	0.125	15.0
		220 kV	0.311	0.212	0.123	15.0
		1-10 kV	0.325	0.228	0.141	15.0
	Sythetic ammonia	35 kV	0.311	0.217	0.132	15.0
		110 kV	0.303	0.210	0.125	15.0
		220 kV	0.296	0.204	0.123	15.0
		1-10 kV	0.475	0.374	0.109	
	Wholesale I ^[1]	>35 kV	0.464	0.364	0.104	

[1] Wholesale categories (I, III, and III) are not defined in the original source.

[2] Peak: 7:00 - 11:00, 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.310	0.300	0.300			
Non-residential illumination	0.475	0.463	0.462			
Non-industry & ordinary industry ^[2]	0.435	0.426	0.415			
Large-scale industry ^[2]		0.325	0.313	0.303	18	12
in which: calcium carbide, lime, ammonia, & phosphorus		0.315	0.302	0.293	18	12
Commercial	0.475	0.463	0.462			
Agriculture	0.371	0.362	0.349			
Irrigation in poor rural counties	0.186	0.184	0.181			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 81.5% of the cost is charged, if large industrial prices are used, then 77.25% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Peak Price Schedule (yuan/kWh)

Period	Large-Scale Industrial					
	Non-Preferential Price			Preferential Price ^[1]		
	1-10 kV	35 kV	≥110 kV	1-10 kV	35 kV	≥110 kV
Peak	0.473	0.459	0.448	0.453	0.438	0.428
Non-peak	0.325	0.313	0.303	0.315	0.303	0.293
Low demand	0.190	0.180	0.170	0.190	0.180	0.170
	Non-Industrial & Ordinary Industrial					
	<1 kV	1-10 kV	≥35 kV			
Peak	0.709	0.696	0.678			
Non-peak	0.435	0.426	0.415			
Low demand	0.180	0.175	0.170			
	Commercial					
	<1 kV	1-10 kV	≥35 kV			
Peak	0.791	0.771	0.769			
Non-peak	0.475	0.463	0.462			
Low demand	0.180	0.175	0.175			
	Non-Residential Illumination					
	<1 kV	1-10 kV	≥35 kV			
Peak	0.791	0.771	0.769			
Non-peak	0.475	0.463	0.462			
Low demand	0.180	0.175	0.175			
	Agricultural					
	<1 kV	1-10 kV	≥35 kV			
Peak	0.578	0.564	0.548			
Non-peak	0.371	0.362	0.349			
Low demand	0.180	0.175	0.170			

[1] For manufacturers of calcium carbide, electrolytic process caustic soda, yellow phosphorous, and synthetic ammonia.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

3. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.238	0.238	0.235	0.235
Nonresidential illumination	0.391	0.391	0.383	0.383
Non-industry & ordinary industry	0.342	0.335	0.335	0.327
Commercial	0.391	0.391	0.383	0.383
Agriculture	0.317	0.303	0.307	0.294
Irrigation in poor rural counties	0.145	0.140	0.143	0.138

Source: EB, China Price Yearbook, 1998.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

4. Wholesale Peak Price Schedule (yuan/kWh)

Customer Type	Period	Wholesale Price			
		County Level		Under County Level	
		1-10 kV	≥35 kV	1-10 kV	≥35 kV
Non-industry & ordinary industry	Peak	0.579	0.570	0.565	
	Non-peak	0.342	0.335	0.335	
	Low demand	0.120	0.115	0.120	
Agriculture	Peak	0.527	0.503	0.506	
	Non-peak	0.317	0.303	0.307	
	Low demand	0.120	0.115	0.120	
Commercial	Peak	0.680	0.680	0.663	
	Non-peak	0.391	0.391	0.383	
	Low demand	0.120	0.120	0.120	
Non-residential illumination	Peak	0.680	0.680	0.663	
	Non-peak	0.391	0.391	0.383	
	Low demand	0.120	0.120	0.120	

Source: EB, China Price Yearbook, 1998.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand	Transformer Capacity
						(yuan/kW/month)	(yuan/kVA/month)
Residential	0.372	0.362	0.362				
Non-residential	0.520	0.510	0.510				
Commercial illumination	0.550	0.540	0.540				
Non-industry & ordinary industry	0.477	0.467	0.457				
medium & small fertilizer ^[2]	0.378	0.368	0.358				
Large-scale industrial		0.356	0.341	0.331	0.326	22.5	15.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.346	0.331	0.321	0.316	22.5	15.0
medium & small fertilizer		0.262	0.252	0.242	0.237	22.5	15.0
Agriculture	0.392	0.382	0.372				
Irrigation in poor rural counties	0.227	0.224	0.221				

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Electricity prices for small and medium ammonia and other fertilizer plants are detailed in subtable 5.

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.007 yuan/kWh for the Three Gorges construction fund. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower. For electrolytic aluminum enterprises with production capacities over 50 kt/yr, prices are determined by national regulations (State Development Planning Commission [1999]997). For ferro-alloy manufacturers with production capacity over 40 kt/yr and chlorine-caustic soda manufacturers with production capacity over 30 kt/yr, prices are 0.02 yuan/kWh lower than for other types of enterprises.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Wholesale^[1] Price Schedule (yuan/kWh)

Electricity utilization category	Wholesale II		Wholesale III	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.292	0.292	0.287	0.287
Non-residential illumination	0.435	0.435	0.427	0.427
Commercial	0.461	0.461	0.451	0.451
Non-industry & ordinary industry	0.383	0.373	0.373	0.363
Agricultural production	0.336	0.321	0.326	0.311
Agricultural irrigation	0.177	0.172	0.175	0.170

[1] Wholesale categories (I, II, and III) are not defined in the original source.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Peak Price Schedule (yuan/kWh)

Customer Category	Connection	Period ^[1]		
		Peak	Ordinary	Off-peak
Large industry ^[2]	1-10KV	0.506	0.356	0.219
	35-110KV	0.488	0.341	0.208
	110KV	0.477	0.331	0.198
	>220KV	0.469	0.326	0.195
	1-10KV	0.486	0.346	0.219
	35-110KV	0.467	0.331	0.208
	110KV	0.457	0.321	0.198
	>220KV	0.455	0.316	0.195
Non-industry & ordinary industry	<1KV	0.759	0.477	0.215
	1-10KV	0.744	0.467	0.209
	>35KV	0.728	0.457	0.205
Commercial	<1KV	0.890	0.550	0.231
	1-10KV	0.873	0.540	0.227
	>35KV	0.873	0.540	0.227
Non-residential	<1KV	0.845	0.520	0.216
	1-10KV	0.828	0.510	0.212
	>35KV	0.828	0.510	0.212
Agriculture	<1KV	0.606	0.392	0.194
	1-10KV	0.591	0.382	0.189
	>35KV	0.574	0.372	0.185

[1] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

[2] "Large industry" refers to enterprises producing calcium carbide, electrolytic-process caustic soda, ammonia (except small and medium plants, for which see subtable 5), and yellow phosphorus.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

4. Wholesale^[1] Peak Price Schedule (yuan/kWh)

Customer Category	Period ^[2]	Wholesale I		Wholesale II	
		1-10KV	35KV	1-10KV	35KV
Industry & non-industry	Peak	0.627	0.614	0.609	0.594
	Ordinary	0.383	0.373	0.373	0.363
	Off-peak	0.154	0.148	0.153	0.147
Agriculture	Peak	0.552	0.527	0.531	0.507
	Ordinary	0.336	0.321	0.326	0.311
	Off-peak	0.133	0.128	0.133	0.127
Commercial	Peak	0.772	0.772	0.752	0.752
	Ordinary	0.461	0.461	0.451	0.451
	Off-peak	0.169	0.169	0.168	0.168
Non-residential	Peak	0.733	0.733	0.716	0.716
	Ordinary	0.435	0.435	0.427	0.427
	Off-peak	0.156	0.156	0.156	0.156

[1] Wholesale categories (I, III, and III) are not defined in the original source.

[2] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.3. North Hebei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

5. Price Schedule to Small and Medium Fertilizer Plants

Customer Category	Period ^[2]	Electricity price (yuan/kW)			Basic Electricity Charge	
		Peak	Ordinary	Off-peak	Transformer capacity (yuan/KVA/month)	Max demand (yuan/kW/month)
Direct supply	Non-industry	<1 kV	0.609	0.378	0.162	
	& ordinary	1-10 kV	0.595	0.368	0.157	
	industry	>35 kV	0.580	0.358	0.153	
	Large industry	1-10 kV	0.378	0.262	0.156	15.0
		35 kV	0.367	0.252	0.148	15.0
		110 kV	0.355	0.242	0.139	15.0
		220 kV	0.347	0.237	0.136	15.0
	Synthetic ammonia	1-10 kV	0.363	0.254	0.156	15.0
		35 kV	0.347	0.242	0.147	15.0
		110 kV	0.340	0.234	0.139	15.0
		220 kV	0.332	0.233	0.136	15.0
Wholesale ^[1]	Wholesale I	1-10 kV	0.500	0.300	0.112	
		>35 kV	0.489	0.291	0.107	
	Wholesale II	1-10 kV	0.485	0.291	0.111	
		>35 kV	0.472	0.283	0.106	

[1] Wholesale categories (I, II, and III) are not defined in the original source.

[2] Peak: 7:00 - 11:00, 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.4. South Hebei Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.310	0.300	0.300			
Non-residential illumination	0.449	0.437	0.437			
Non-industry & ordinary industry ^[2]	0.423	0.415	0.402			
Large-scale industry ^[2]		0.314	0.301	0.291	18.0	18.0
in which: calcium carbide, lime, ammonia, & phosphorus		0.304	0.291	0.281	12.0	12.0
Agriculture	0.343	0.333	0.320			
Irrigation in poor rural counties	0.136	0.134	0.131			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 77.87% of the cost is charged, if large industrial prices are used, then 71.09% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.4. South Hebei Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.241	0.241	0.256	0.256
Non-residential illumination	0.359	0.359	0.373	0.373
Non-industrial & ordinary industrial	0.312	0.304	0.320	0.312
Agriculture	0.284	0.270	0.284	0.270
Irrigation in poor rural counties	0.100	0.095	0.100	0.095

Source: EB, China Price Yearbook, 1998.

Table 6C.9.4. South Hebei Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.372	0.362	0.362				
Non-residential	0.527	0.517	0.517				
Commercial illumination	0.674	0.664	0.664				
Non-industry & ordinary industry	0.500	0.490	0.480				
medium & small fertilizer	0.390	0.380	0.370				
Large-scale industry		0.347	0.332	0.322	0.317	22.5	15.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.337	0.322	0.312	0.307	22.5	15.0
medium & small fertilizer		0.243	0.228	0.218	0.213	18.0	12.0
Agriculture	0.380	0.370	0.360				
Irrigation in poor rural counties	0.169	0.164	0.159				

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.007 yuan/kWh for the Three Gorges construction fund. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower. For electrolytic aluminum enterprises with production capacities over 50 kt/yr, prices are determined by national regulations (State Development Planning Commission [1999]997). For ferro-alloy manufacturers with production capacity over 40 kt/yr and chlorine-caustic soda manufacturers with production capacity over 30 kt/yr, prices are 0.026 yuan/kWh lower than for other types of enterprises.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.4. South Hebei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Wholesale Price Schedule (Yuan/kWh)

Electricity utilization category	County level		Below county level	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.300	0.300	0.315	0.315
Non-residential illumination	0.422	0.422	0.437	0.437
Commercial	0.565	0.565	0.580	0.580
Non-industry & ordinary Industry	0.372	0.362	0.377	0.372
Agricultural production	0.319	0.304	0.319	0.304
Agricultural irrigation	0.128	0.123	0.128	0.123

Source: EB, China Price Yearbook, 2000.

Table 6B.10.4. South Hebei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Peak Price Schedule (yuan/kWh)

Customer Category	Connection	Period ^[1]			
		Peak	Ordinary	Off-peak	
Large industry ^[2]	No discount	1-10 kV	0.507	0.347	0.187
		35 kV	0.485	0.332	0.180
		110 kV	0.470	0.322	0.175
		220 kV	0.462	0.317	0.172
	Discount	1-10 kV	0.491	0.336	0.182
		35 kV	0.468	0.321	0.174
		110 kV	0.453	0.311	0.169
		220 kV	0.446	0.306	0.167
	Small & medium fertilizer	1-10 kV	0.351	0.243	0.135
		35 kV	0.329	0.228	0.128
		110 kV	0.314	0.218	0.123
		220 kV	0.306	0.213	0.120
Non-industry & ordinary industry	<1 kV	0.737	0.500	0.264	
	1-10 kV	0.722	0.490	0.259	
	>35 kV	0.707	0.480	0.254	
Non-residential	<1 kV	0.777	0.527	0.277	
	1-10 kV	0.762	0.517	0.272	
	>35 kV	0.762	0.517	0.272	
Agriculture	<1 kV	0.557	0.380	0.204	
	1-10 kV	0.542	0.370	0.199	
	>35 kV	0.527	0.360	0.194	

[1] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

[2] "Large industry" refers to calcium carbide, electrolytic caustic soda, ammonia, and yellow phosphorus.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.5. Shanxi Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
					Maximum Demand	Transformer Capacity
	<1 kV	1-10 kV	35-110 kV	>110 kV	(yuan/kW/month)	(yuan/kVA/month)
Residential	0.322	0.312	0.312			
Non-residential illumination	0.380	0.368	0.367			
Non-industry & ordinary industry ^[2]	0.335	0.327	0.316			
Large-scale industry ^[2]		0.241	0.229	0.219	16.5	11.0
in which: lime, ammonia, & phosphorus		0.231	0.219	0.209	16.5	11.0
calcium carbide		0.221	0.209	0.199	16.5	11.0
Agriculture	0.271	0.263	0.250			
in which: counties with deep wells, high delivery head for irrigation	0.211					
Irrigation in poor rural counties	0.127	0.125	0.122			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 82.2% of the cost is charged, if large industrial prices are used, then 77% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.5. Shanxi Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.250	0.250	0.265	0.265
Non-residential illumination	0.297	0.297	0.312	0.312
Non-industrial & ordinary industry	0.249	0.241	0.257	0.249
Agriculture	0.222	0.208	0.222	0.208
Irrigation in poor rural counties	0.092	0.086	0.092	0.086

Source: EB, China Price Yearbook, 1998.

Table 6C.9.5. Shanxi Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule (regions where public utility service fee not levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.392	0.382	0.382				
Rural residential	0.555	0.546	0.546				
Commercial illumination	0.673	0.664	0.664				
Non-industry & ordinary Industry	0.468	0.461	0.461				
medium & small fertilizer	0.301	0.297	0.297				
Large-scale Industry		0.357	0.357	0.317	0.312	24.0	16.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.347	0.347	0.307	0.302	24.0	16.0
calcium carbide		0.337	0.337	0.297	0.292	24.0	16.0
medium & small fertilizer		0.206	0.206	0.181	0.176	24.0	16.0
Agriculture	0.399	0.391	0.391				
Irrigation in poor rural counties	0.219	0.217	0.217				

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.007 yuan/kWh for the Three Gorges construction fund. Poor region agricultural irrigation price is reduced by 0.024 yuan/kWh reduction on the base of agricultural irrigation price. Except agricultural production and irrigation price, all prices in subtable 2 include urban public service fee, inclusive of 0.02 yuan/kWh for residential, non-residential and commercial customers, and 0.006 yuan/kWh for non-industrial, ordinary industrial and large industrial customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 Yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.5. Shanxi Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Basic Price Schedule (regions where public utility service fee levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.412	0.402	0.402				
Rural residential	0.575	0.566	0.566				
Commercial illumination	0.693	0.684	0.674				
Non-industry & ordinary Industry	0.474	0.467	0.458				
medium & small fertilizer	0.307	0.303	0.299				
Large-scale industry		0.363	0.343	0.323	0.318	24.0	16.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.353	0.333	0.313	0.308	24.0	16.0
calcium carbide		0.343	0.323	0.303	0.298	24.0	16.0
medium & small fertilizer		0.212	0.197	0.187	0.182	24.0	16.0
Agriculture	0.399	0.391	0.381				
Irrigation in poor rural counties	0.219	0.217	0.214				

Source: EB, China Price Yearbook, 2000.

Table 6C.9.5. Shanxi Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Wholesale price schedule (Yuan/kWh)

Customer Category	County-Level Wholesale		Below County-Level Wholesale	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.288	0.288		
Non-residential illumination	0.420	0.420		
Commercial	0.505	0.505		
Non-industry & ordinary industry	0.339	0.331		
medium & small fertilizer	0.225	0.220		
Agricultural production	0.312	0.300		
Agricultural irrigation	0.158	0.153		

Source: EB, China Price Yearbook, 2000.

Table 6C.9.6. Northeast Grid Electricity Rate Schedules (continued)

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.300	0.290	0.290			
Non-residential illumination	0.403	0.395	0.394			
Non-industry & ordinary industry ^[2]	0.376	0.368	0.356			
Large-scale industry ^[2]		0.272	0.259	0.249	18.0	12.0
in which: calcium carbide, lime, ammonia, & phosphorus		0.262	0.249	0.239	18.0	12.0
Agriculture	0.309	0.300	0.286			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.
[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 82.82% of the cost is charged, if large industrial prices are used, then 77.22% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.6. Northeast Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.229	0.229	0.243	0.243
Non-residential illumination	0.311	0.311	0.325	0.325
Non-industrial & ordinary industry	0.265	0.257	0.295	0.286
Agriculture	0.240	0.230	0.240	0.230

Source: EB, China Price Yearbook, 1998.

Table 6C.9.7. Shanghai Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)			
	<1 kV	1-10 kV	35-110 kV	>110 kV
Residential	0.617	0.612		
Middle and primary school	0.589	0.584		
Illumination and street light	0.726	0.721	0.721	
Industrial and commercial illumination	0.746	0.741	0.741	
Hotel illumination	0.776	0.771	0.771	
Sewer	0.415	0.413	0.410	
Tramcar	0.635	0.633	0.630	
Non-industry	0.613	0.615	0.610	
Capital construction	0.580	0.578	0.575	
Non-industry (commercial)	0.635	0.633	0.630	
Hotel	0.665	0.633	0.660	
Ordinary industry	0.633	0.635	0.630	
Agriculture sidelines	0.279	0.277	0.274	
Agricultural irrigation	0.244	0.242	0.239	

Source: EB, China Price Yearbook, 1998.

Table 6C.9.7. Shanghai Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Price Schedule for Special Customer Types ^[1]

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge	
					Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
	<1 kV	1-10 kV	35-110 kV	>110 kV		
Ordinary industrial price	0.566	0.561	0.558	0.548	18.0	12.0
Electric arc furnace (steel)		0.293	0.290	0.280	18.0	12.0
Agricultural plastic film		0.516	0.513	0.503	18.0	12.0
Ammonia synthesis		0.170	0.167	0.157	18.0	12.0
Small fertilizer plants (rural)		0.135	0.132	0.122	18.0	12.0
Calcium carbide		0.298	0.295	0.285	18.0	12.0
Electrolysis of caustic soda		0.336	0.333	0.323	18.0	12.0
Coal gas		0.513	0.513		18.0	12.0
Illumination	0.716	0.711	0.711		18.0	12.0

[1] Prices in this table include a 1.5 fen/kWh (0.015 yuan/kWh) surcharge for the Three Gorges Project construction fund.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.8. Zhejiang Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.350	0.345				
Non-residential illumination	0.397	0.383				
Non-industry & ordinary industry ^[2]	0.366	0.356	0.344			
Large-scale industry ^[2]		0.258	0.245	0.235	18	12
in which: calcium carbide, lime, ammonia, & phosphorus		0.248	0.235	0.225	18	12
Agriculture	0.302	0.291	0.277			
Irrigation in poor rural counties	0.107	0.104	0.101			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.
[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 80.54% of the cost is charged, if large industrial prices are used, then 74% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.8. Zhejiang Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.278		0.292	
Non-residential illumination	0.319		0.333	
Non-industry & ordinary industry	0.278	0.269	0.286	0.277
Agriculture	0.257	0.242	0.257	0.242
Irrigation in poor rural counties	0.074	0.069	0.074	0.069

Source: EB, China Price Yearbook, 1998.

Table 6C.9.9. Anhui Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.330	0.320				
Non-residential illumination	0.421	0.411				
Non-industry & ordinary industry ^[2]	0.353	0.345	0.333			
Large-scale industry ^[2]		0.270	0.258	0.248	18	12
in which: calcium carbide, lime, ammonia, & phosphorus		0.260	0.248	0.238	18	12
Agriculture	0.295	0.286	0.272			
Irrigation in poor rural counties	0.090	0.088	0.084			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.
[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 80.84% of the cost is charged, if large industrial prices are used, then 75.54% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.9. Anhui Grid Electricity Rate Schedules (continued))

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.250		0.268	
Non-residential illumination	0.330		0.348	
Non-industry & ordinary industry	0.263	0.253	0.271	0.261
Agriculture	0.241	0.227	0.241	0.227
Irrigation in poor rural counties	0.060	0.055	0.060	0.055

Source: EB, China Price Yearbook, 1998.

Table 6C.9.10. Jiangsu Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.360	0.350				
Non-residential illumination	0.456	0.444				
Non-industry & ordinary industry ^[2]	0.374	0.366	0.354			
Large-scale industry ^[2]		0.273	0.260	0.250	18	12
in which: calcium carbide, lime, ammonia, & phosphorus		0.263	0.250	0.240	18	12
Agriculture	0.315	0.305	0.290			
Irrigation in poor rural counties	0.124	0.122	0.118			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.
[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 84.2% of the cost is charged, if large industrial prices are used, then 80.1% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.10. Jiangsu Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.271		0.289	
Non-residential illumination	0.353		0.371	
Non-industry & ordinary industry	0.280	0.272	0.288	0.280
Agriculture	0.257	0.243	0.257	0.243
Irrigation in poor rural counties	0.088	0.083	0.088	0.083

Source: EB, China Price Yearbook, 1998.

Table 6C.9.10. Jiangsu Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.520	0.510					
Rural residential		0.393					
Commercial illumination ^[2]	0.899	0.884					
Other illumination	0.791	0.776					
Non-industry & ordinary industry	0.664	0.649	0.634				
medium & small fertilizer	0.342	0.327	0.312				
Large-scale industry		0.473	0.458	0.443	0.428	27	18
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.463	0.448	0.433	0.418	27	18
medium & small fertilizer		0.214	0.199	0.184		27	18
Agriculture	0.421	0.411	0.396				
Irrigation in poor rural counties	0.275	0.273	0.269				

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Commercial illumination: covers all customers who exchanges goods, or provides service for profit.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.10. Jiangsu Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Peak Price Schedule (yuan/kWh)

Customer Category	Connection	Period ^[1]			
		Peak	Ordinary	Off-peak	
Large industry ^[2]	No discount	1-10 kV	0.710	0.473	0.237
		35-110 kV	0.687	0.458	0.229
		110 kV	0.665	0.443	0.222
		220 kV	0.642	0.428	0.214
	Discount	1-10 kV	0.695	0.463	0.232
		35-110 kV	0.672	0.448	0.224
		110 kV	0.650	0.433	0.217
		220 kV	0.627	0.418	0.209
Non-industry & ordinary industry	<1 kV	0.996	0.664	0.332	
	1-10 kV	0.974	0.649	0.325	
	>35 kV	0.951	0.634	0.317	

[1] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

[2] Large industry refers to calcium carbide, electrolytic caustic soda, ammonia, and yellow phosphorus.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.10. Jiangsu Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Electricity Grid Peak Price Schedule (yuan/kWh)

Customer Category	Connection	Period ^[1]		
		Peak	Ordinary	Off-peak
Large industry ^[2]	<1KV	0.321	0.214	0.107
	1-10KV	0.299	0.199	0.100
	>35KV	0.276	0.184	0.092
Non-industry & ordinary industry	<1KV	0.513	0.342	0.171
	1-10KV	0.491	0.327	0.164
	>35KV	0.468	0.312	0.156

[1] Peak: 7:00 - 11:00 , 17:00 - 21:00; Ordinary: 11:00 - 17:00, 21:00 - 23:00; Off-peak: 23:00 - 7:00.

[2] large industry refers to calcium carbide, electrolytic caustic soda, ammonia, and yellow phosphorus

N.B. Large industry discount refers to ferroalloys (electric furnace), electrolytic caustic soda, ammonia, & yellow phosphorus.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.11. Hunan Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.450	0.445				
Non-residential illumination	0.663	0.653	0.653			
Non-industry & ordinary industry ^[2]	0.496	0.487	0.477			
Large-scale industry ^[2]		0.376	0.364	0.354	18.0	12.0
in which: lime, iron smelting, ammonia, & phosphorus		0.366	0.354	0.344	18.0	12.0
calcium carbide		0.356	0.344	0.334	18.0	12.0
Agriculture	0.339	0.331	0.321			
Irrigation in poor rural counties	0.256	0.254	0.251			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 71% of the cost is charged, if large industrial prices are used, then 65.61% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.11. Hunan Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.357			
Non-residential illumination	0.526	0.526		
Non-industry & ordinary industry	0.355	0.348		
Agriculture	0.267	0.255		
Irrigation in poor rural counties	0.203	0.198		

Source: EB, China Price Yearbook, 1998.

Table 6C.9.11. Hunan Grid Electricity Rate Schedules

B. 1999

1. Basic Price Schedule (regions where public utility service fee not levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.483	0.478					
Rural residential	0.740	0.730					
Commercial illumination	0.960	0.950					
Non-industry & ordinary industry	0.546	0.536	0.526				
medium & small fertilizer	0.388	0.379	0.369				
Large-scale industry		0.428	0.413	0.403	0.398	24.0	16.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.418	0.403	0.393	0.388	24.0	16.0
calcium carbide		0.408	0.393	0.383	0.378	24.0	16.0
medium & small fertilizer		0.268	0.256	0.246	0.191	24.0	16.0
Agriculture	0.390	0.380	0.370				
Irrigation in poor rural counties	0.256	0.254	0.251				

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.013 yuan/kWh for the Three Gorges construction fund. Except agricultural production and irrigation price, prices in subtable 2 include urban public service fees, inclusive of 0.02 yuan/kWh for residential, non-residential and commercial customers, and 0.007 yuan/kWh for non-industrial, ordinary industrial and large industrial customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.11. Hunan Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Basic Price Schedule (regions where public utility service fee levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.503	0.498					
Rural residential	0.760	0.750					
Commercial illumination	0.980	0.970					
Non-industry & ordinary industry	0.553	0.543	0.533				
medium & small fertilizer	0.395	0.386	0.376				
Large-scale industry		0.435	0.420	0.410	0.405	24.0	16.0
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.425	0.410	0.400	0.395	24.0	16.0
calcium carbide		0.415	0.400	0.390	0.385	24.0	16.0
medium & small fertilizer		0.275	0.263	0.253		24.0	16.0
Agriculture	0.390	0.380	0.370				
Irrigation in poor rural counties	0.256	0.254	0.251				

Source: EB, China Price Yearbook, 2000.

Table 6C.9.11. Hunan Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Wholesale Price Schedule (yuan/kWh)

Electricity utilization category	County-Level Wholesale		Below County-Level Wholesale	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.390	0.390		
Non-residential illumination	0.596	0.596		
Commercial	0.783	0.783		
Non-industry & ordinary industry	0.407	0.397		
Agricultural production	0.314	0.304		
Agricultural irrigation	0.203	0.198		

Source: EB, China Price Yearbook, 2000.

Table 6C.9.12. Hubei Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.375	0.370	0.370			
Non-residential illumination	0.522	0.511	0.511			
Non-industry & ordinary industry ^[2]	0.749	0.732	0.732			
Commercial	0.445	0.437	0.424			
Large-scale industry ^[2]		0.329	0.316	0.306	18	12
in which: lime, iron smelting, ammonia, & phosphorus		0.319	0.306	0.296	18	12
calcium carbide		0.309	0.296	0.286	18	12
Agriculture	0.370	0.360	0.345			
Irrigation in poor rural counties	0.171	0.169	0.166			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 68.4% of the cost is charged; if large industrial prices are used, then 63.2% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.12. Hubei Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.277	0.273	0.305	0.301
Non-residential illumination	0.409	0.409	0.428	0.428
Commercial	0.577	0.577	0.606	0.606
Non-industry & ordinary industry	0.318	0.309	0.326	0.317
Agriculture	0.294	0.278	0.294	0.278
Irrigation in poor rural counties	0.128	0.123	0.128	0.123

Source: EB, China Price Yearbook, 1998.

Table 6C.9.12. Hubei Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule (regions where public utility service fee not levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.445	0.435	0.435				
Rural residential	0.592	0.582	0.582				
Commercial illumination	0.827	0.817	0.817				
Non-industry & ordinary industry	0.509	0.499	0.489				
medium & small fertilizer	0.373	0.363	0.353				
Large-scale industry		0.375	0.355	0.345	0.340	24	16
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.365	0.345	0.335	0.330	24	16
calcium carbide		0.355	0.335	0.325	0.320	24	16
medium & small fertilizer		0.260	0.240	0.230	0.225	24	16
Agriculture	0.430	0.420	0.410				
Irrigation in poor rural counties	0.200	0.195	0.190				

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.015 yuan/kWh for the Three Gorges construction fund. Except agricultural production and irrigation price, prices in subtable 2 include urban public service fee, inclusive of 0.012 yuan/kWh for residential customers, and 0.01 yuan/kWh for other customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.12. Hubei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Basic Price Schedule (regions where public utility service fee levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.457	0.447	0.447				
Rural residential	0.602	0.592	0.592				
Commercial illumination	0.837	0.827	0.827				
Non-industry & ordinary industry	0.519	0.509	0.499				
medium & small fertilizer	0.383	0.373	0.363				
Large-scale industry		0.385	0.365	0.355	0.350	24	16
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.375	0.355	0.345	0.340	24	16
calcium carbide		0.365	0.345	0.335	0.330	24	16
medium & small fertilizer		0.270	0.250	0.240	0.235	24	16
Agriculture	0.430	0.420	0.410				
Irrigation in poor rural counties	0.200	0.195	0.190				

Source: EB, China Price Yearbook, 2000.

Table 6C.9.12. Hubei Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Wholesale Price Schedule (yuan/kWh)

Price category	County-Level Wholesale		Below County-Level Wholesale	
	1-10 kV	>35 kV	1-10 kV	>35 kV
County-level wholesale price	0.349	0.349	0.360	0.360
Small & medium fertilizer	0.255	0.240	0.255	0.240

Source: EB, China Price Yearbook, 2000.

Table 6C.9.13. Henan Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.320	0.315				
Non-residential illumination	0.384	0.375				
Non-industry & ordinary industry ^[2]	0.286	0.280	0.241			
Large-scale industry ^[2]		0.201	0.191	0.181	16.5	11.0
in which: lime, iron smelting, ammonia, & phosphorus		0.191	0.181	0.171	16.5	11.0
calcium carbide		0.181	0.171	0.161	16.5	11.0
Agriculture	0.228	0.220	0.210			
Irrigation in poor rural counties	0.128	0.125	0.122			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" electricity prices. If nonindustrial prices are used, then 87.94% of the cost is charged, if large industrial prices are used, then 84.06% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.13. Henan Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.261		0.262	
Non-residential illumination	0.294	0.294	0.313	0.396
Non-industry & ordinary industry	0.210	0.204	0.218	0.212
Agriculture	0.180	0.170	0.180	0.170
Irrigation in poor rural counties	0.092	0.087	0.092	0.087

Source: EB, China Price Yearbook, 1998.

Table 6C.9.13. Henan Grid Electricity Rate Schedules (continued)

B. 1999

1. Wholesale Price Schedule (yuan/kWh)

Electricity utilization category	County Level wholesale		Below county level wholesale	
	<35 kV	>110 kV	<35 kV	>110 kV
Residential	0.348	0.348	0.368	0.368
Non-residential illumination	0.373	0.368	0.393	0.388
Commercial	0.473	0.468	0.493	0.488
Non-industry & ordinary industry	0.363	0.358	0.383	0.378
Large industry	0.363	0.358	0.383	0.378
Agricultural production	0.328	0.328	0.348	0.348
Agricultural irrigation	0.285	0.285	0.305	0.305

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.013 yuan/kWh for the Three Gorges construction fund. Except agricultural production and irrigation price, prices in subtable 2 include urban public service fees, inclusive of 0.015 yuan/kWh for residential, non-residential and commercial prices customers, and 0.01 yuan/kWh for other customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.13. Henan Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Basic Price Schedule (regions where public utility service fee levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.410	0.371					
Non-residential	0.488	0.441					
Commercial illumination	0.650	0.580					
Non-industry & ordinary industry	0.479	0.466	0.457				
Large-scale industry		0.373	0.364	0.355	0.346	21	15
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, yellow phosphorus, & calcium carbide		0.353	0.344	0.335	0.326	21	15
ammonia		0.318	0.308	0.298	0.288	21	15
Agricultural Production	0.339	0.330	0.321				

Source: EB, China Price Yearbook, 2000.

Table 6C.9.14. Shaanxi Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.338	0.328	0.328			
Non-residential illumination	0.501	0.492	0.492			
Non-industry & ordinary industry ^[2]	0.410	0.403	0.394			
Large-scale industry ^[2]		0.303	0.293	0.283	18	12
in which: lime, iron smelting, ammonia, & phosphorus		0.293	0.283	0.273	18	12
calcium carbide		0.283	0.273	0.263	18	12
Agriculture	0.345	0.337	0.327			
Irrigation in poor rural counties	0.165	0.163	0.160			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 60% of the cost is charged, if large industrial prices are used, then 53% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.14. Shaanxi Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.242	0.242		
Non-residential illumination	0.374	0.374		
Non-industry & ordinary industry	0.291	0.283		
Agriculture	0.266	0.254		
Irrigation in poor rural counties	0.112	0.107		

Source: EB, China Price Yearbook, 1998.

Table 6C.9.15. Gansu Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.315	0.305	0.305			
Non-residential illumination	0.436	0.428	0.428			
Non-industry & ordinary industry ^[2]	0.375	0.372	0.366			
Large-scale industry ^[2]		0.285	0.282	0.272	16.5	11.0
in which: lime, iron smelting, ammonia, & phosphorus		0.246	0.242	0.232	16.5	11.0
calcium carbide		0.236	0.232	0.222	16.5	11.0
Agriculture	0.283	0.279	0.270			
Irrigation in poor rural counties	0.136	0.134	0.131			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 89.5% of the cost is charged, if large industrial prices are used, then 86.71% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.15. Gansu Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.238	0.238	0.257	0.257
Non-residential illumination	0.332	0.331	0.351	0.350
Non-industry & ordinary industry	0.271	0.267	0.282	0.278
Agriculture	0.221	0.211	0.221	0.211
Irrigation in poor rural counties	0.100	0.095	1.000	0.095

Source: EB, China Price Yearbook, 1998.

Table 6C.9.16. Ningxia Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.310	0.300				
Non-residential illumination	0.431	0.422	0.421			
Non-industry & ordinary industry ^[2]	0.340	0.333	0.323			
Large-scale industry ^[2]		0.259	0.247	0.237	16.5	11.0
in which: lime, iron smelting, ammonia, & phosphorus		0.249	0.237	0.227	16.5	11.0
calcium carbide		0.239	0.227	0.217	16.5	11.0
Agriculture	0.278	0.270	0.258			
Irrigation in poor rural counties	0.148	0.146	0.143			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 88.4% of the cost is charged, if large industrial prices are used, then 86.6% of the price is charged. Base electricity prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.16. Ningxia Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.229-0.248			
Non-residential illumination	0.334	0.334	0.353	0.353
Non-industry & ordinary industry	0.249	0.243	0.257	0.251
Agriculture	0.219	0.208	0.219	0.208
Irrigation in poor rural counties	0.110	0.105	0.110	0.105

Source: EB, China Price Yearbook, 1998.

Table 6C.9.17. Qinghai Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.275	0.270				
Non-residential illumination	0.353	0.346	0.346			
Non-industry & ordinary industry	0.241	0.236	0.230			
Large-scale industry		0.173	0.166	0.156	15	10
in which: lime, iron smelting, ammonia, & phosphorus		0.163	0.156	0.146	15	10
calcium carbide		0.153	0.146	0.136	15	10
Agriculture	0.192	0.187	0.180			
Irrigation in poor rural counties	0.140	0.138	0.135			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.17. Qinghai Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.203	0.203	0.222	0.222
Non-residential illumination	0.266	0.266	0.285	0.285
Non-industry & ordinary industry	0.174	0.171	0.182	0.179
Agriculture	0.146	0.137	0.146	0.137
Irrigation in poor rural counties	0.102	0.096	0.102	0.096

Source: EB, China Price Yearbook, 1998.

Table 6C.9.17. Qinghai Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule (regions where public utility service fee not levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.362	0.357					
Non-residential	0.440	0.433	0.433				
Commercial illumination	0.660	0.650	0.640				
Non-industry & ordinary industry	0.328	0.323	0.317				
Large-scale industry		0.254	0.244	0.234		20	13
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.244	0.234	0.224		20	13
calcium carbide		0.234	0.224	0.214		20	13
medium & small fertilizer		0.147	0.137			20	13
Agriculture	0.279	0.274	0.267				
Irrigation in poor rural counties	0.203	0.201	0.198				

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.004 yuan/kWh for the Three Gorges construction fund. Except residential and commercial electricity price, agricultural production and irrigation electricity price, all prices in subtable 2 include urban public service fees, inclusive of 0.02 yuan/kWh for residential, non-residential, commercial, non-industrial, ordinary industrial and large industrial customers, and 0.015 yuan/kWh for large industrial customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower. For electrolytic aluminum enterprises with production capacities over 50 kt/yr, prices are determined by national regulations (State Development Planning Commission [1999]997). For ferro-alloy manufacturers with production capacity over 40 kt/yr and chlorine-caustic soda manufacturers with production capacity over 30 kt/yr, prices are 0.01 yuan/kWh lower than for other types of enterprises.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.17. Qinghai Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Basic Price Schedule (regions where public utility service fee levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.362	0.357					
Non-residential	0.465	0.458	0.458				
Commercial illumination	0.660	0.650	0.640				
Non-industry & ordinary industry	0.348	0.343	0.337				
Large-scale industry		0.269	0.259	0.249		20	13
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.259	0.249	0.239		20	13
calcium carbide		0.249	0.239	0.229		20	13
medium & small fertilizer		0.162	0.167			20	13
Agriculture	0.279	0.274	0.267				
Irrigation in poor rural counties	0.203	0.201	0.198				

Source: EB, China Price Yearbook, 2000.

Table 6C.9.17. Qinghai Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Wholesale Price Schedule (yuan/kWh)

Customer Type	County-Level Wholesale		Below County-Level Wholesale	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.293		0.313	
Non-residential illumination	0.387	0.387	0.407	0.407
Commercial	0.618	0.618	0.638	0.638
Non-industry & ordinary industry	0.295	0.290	0.305	0.300
Agricultural production	0.264	0.254	0.264	0.254
Agricultural irrigation	0.131	0.126	0.131	0.126

Source: EB, China Price Yearbook, 2000.

Table 6C.9.18. Xinjiang Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.338	0.333				
Commercial	0.441	0.436				
Large-scale industry		0.222	0.219	0.209	15	10
in which: lime, iron smelting, ammonia, & phosphorus		0.212	0.209	0.199	15	10
medium & small fertilizer factories		0.114	0.112			
Non-industry & ordinary industry	0.277	0.275	0.272			
in which: medium and small fertilizer factories	0.272	0.270				
Agriculture	0.158	0.156	0.153			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

N.B. Prices in this table do not include surcharges.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.18. Xinjiang Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule

Price category	Electricity Price (yuan/kWh)				Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.387	0.377				
Rural residential	0.374	0.369				
Commercial illumination	0.507	0.502				
Non-industry & ordinary industry	0.344	0.342	0.339			
medium & small fertilizer	0.319	0.317	0.315			
Large-scale industry		0.280	0.275	0.263	20	13
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.266	0.263	0.253	20	13
medium & small fertilizer		0.148	0.145	0.142	20	13
Agriculture	0.180	0.178	0.175			

N.B. Prices in the tables, except for poor counties' agricultural irrigation prices, include 0.02 yuan/kWh for the central electricity construction fund and 0.004 yuan/kWh for the Three Gorges construction fund. Except for agricultural production and irrigation price, prices include urban public service fees, inclusive of 0.011 yuan/kWh for non-industrial, ordinary industrial and large industrial customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented here, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.19. Yunnan Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.340	0.335				
Non-residential illumination	0.447	0.437				
Non-industry & ordinary industry ^[2]	0.381	0.373	0.363			
Large-scale industry ^[2]		0.287	0.276	0.276	15	10
in which: lime, iron smelting, ammonia, & phosphorus		0.277	0.266	0.266	15	10
calcium carbide		0.267	0.256	0.256	15	10
Agriculture	0.317	0.309	0.296			
Irrigation in poor rural counties	0.185	0.183	0.180			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 74.4% of the cost is charged, if large industrial prices are used, then 67.1% of the price is charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.19. Yunnan Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.260		0.280	
Non-residential illumination	0.350	0.350	0.369	0.369
Non-industry & ordinary industry	0.272	0.266	0.280	0.274
Agriculture	0.247	0.236	0.247	0.236
Irrigation in poor rural counties	0.141	0.136	0.141	0.136

Source: EB, China Price Yearbook, 1998.

Table 6C.9.20. Guizhou Grid Electricity Rate Schedules

A. 1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.320	0.315				
Non-residential illumination	0.426	0.418				
Non-industry & ordinary industry ^[2]	0.332	0.327	0.319			
Large-scale industry ^[2]		0.246	0.238	0.228	15	10
in which: lime, iron smelting, ammonia, & phosphorus		0.236	0.228	0.218	15	10
calcium carbide		0.226	0.218	0.208	15	10
Agriculture	0.267	0.261	0.252			
Irrigation in poor rural counties	0.144	0.142	0.139			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 77.1% of the cost is charged, if large industrial prices are used, then 68.6% of the price is charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.20. Guizhou Grid Electricity Rate Schedules (continued)

A. 1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.239		0.259	
Non-residential illumination	0.328	0.328	0.347	0.347
Non-industry & ordinary industry	0.243	0.238	0.251	0.246
Agriculture	0.213	0.203	0.213	0.203
Irrigation in poor rural counties	0.106	0.101	0.106	0.101

Source: EB, China Price Yearbook, 1998.

Table 6C.9.20. Guizhou Grid Electricity Rate Schedules (continued)

B. 1999

1. Basic Price Schedule (regions where public utility service fee not levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.383	0.373					
Rural residential	0.493	0.483					
Commercial illumination	0.728	0.718					
Non-industry & ordinary Industry	0.399	0.389	0.379				
medium & small fertilizer	0.323	0.313	0.303				
Large-scale industry		0.308	0.288	0.273	0.263	21	14
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.298	0.278	0.263	0.253	21	14
calcium carbide		0.288	0.268	0.253	0.243	21	14
medium & small fertilizer		0.236	0.216	0.201	0.191	21	14
Agriculture	0.328	0.318	0.308				
Irrigation in poor rural counties	0.178	0.173	0.168				

N.B. Prices in the tables, except for poor counties' agricultural irrigation price, include 0.02 yuan/kWh for the central electricity construction fund and 0.004 yuan/kWh for the Three Gorges construction fund. Except agricultural production and irrigation price, all prices in subtable 2 include urban public service fees, inclusive of 0.02 yuan/kWh for residential, non-residential and commercial customers, and 0.008 yuan/kWh for non-industrial, ordinary industrial and large industrial customers. According to national regulations, electricity prices charged to coal and nuclear supply enterprises are 0.017 yuan/kWh lower than those presented in subtables 1 and 2, and prices charged to fertilizer plants and to areas affected by disasters are 0.02 yuan/kWh lower.

Source: EB, China Price Yearbook, 2000.

Table 6C.9.20. Guizhou Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

2. Basic Price Schedule (regions where public utility service fee levied)

Price category	Electricity Price (yuan/kWh)					Basic Electricity Charge	
	<1 kV	1-10 kV	35-110 kV	110 kV	>220 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Urban residential	0.403	0.393					
Rural residential	0.513	0.503					
Commercial illumination	0.748	0.738					
Non-industry & ordinary Industry	0.407	0.397	0.387				
medium & small fertilizer	0.331	0.321	0.311				
Large-scale industry		0.316	0.296	0.281	0.271	21	14
in which: ferroalloys (electric furnace), electrolytic caustic soda, ammonia, Ca-Mg-P fertilizer, & yellow phosphorus		0.306	0.286	0.271	0.261	21	14
calcium carbide		0.296	0.276	0.261	0.251	21	14
medium & small fertilizer		0.244	0.224	0.209	0.199	21	14
Agriculture	0.328	0.318	0.308				
Irrigation in poor rural counties	0.178	0.173	0.168				

Source: EB, China Price Yearbook, 2000.

Table 6C.9.20. Guizhou Grid Electricity Rate Schedules (continued)

B. 1999 (continued)

3. Wholesale Price Schedule (Yuan/kWh)

Customer type	County-Level Wholesale		Below County-Level Wholesale	
	1-10 kV	>35 kV	1-10 kV	>35 kV
Residential	0.293		0.313	
Non-residential illumination	0.387	0.387	0.407	0.407
Commercial	0.618	0.618	0.638	0.638
Non-industry & ordinary industry	0.295	0.290	0.305	0.300
Agricultural production	0.264	0.254	0.264	0.254
Agricultural irrigation	0.131	0.126	0.131	0.126

Source: EB, China Price Yearbook, 2000.

Table 6C.9.21. Chongqing Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.319	0.309				
Non-residential illumination	0.519	0.511				
Non-industry & ordinary industry ^[2]	0.417	0.411	0.403			
Large-scale industry ^[2]		0.337	0.329	0.319	16.5	11.0
in which: lime, iron smelting, ammonia, & phosphorus		0.327	0.319	0.309	16.5	11.0
calcium carbide		0.317	0.309	0.299	16.5	11.0
Agriculture	0.367	0.361	0.353			
Irrigation in poor rural counties	0.151	0.148	0.145			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 74.4% of the cost is charged; if large industrial prices are used, then 67.1% of the price is charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.21. Chongqing Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.239		0.258	
Non-residential illumination	0.423		0.442	
Non-industry & ordinary industry	0.341	0.330	0.349	0.343
Agriculture	0.313	0.303	0.313	0.303
Irrigation in poor rural counties	0.114	0.109	0.114	0.109

Source: EB, China Price Yearbook, 1998.

Table 6C.9.22. Shandong Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.320	0.310	0.310			
Non-residential illumination	0.366	0.358	0.357			
Non-industry & ordinary industry ^[2]	0.284	0.280	0.273			
Large-scale industry ^[2]		0.194	0.188	0.178	16.5	11.0
in which: lime, calcium carbide, ammonia, & phosphorus		0.184	0.178	0.168	16.5	11.0
Agriculture	0.213	0.207	0.198			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 87.3% of the cost is charged, if large industrial prices are used, then 87.62% of the price is charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.22. Shandong Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.236	0.236		
Non-residential illumination	0.277	0.277		
Non-industry & ordinary industry	0.209	0.204		
Agriculture	0.166	0.155		

Source: EB, China Price Yearbook, 1998.

Table 6C.9.23. Fujian Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.290	0.285				
Non-residential illumination	0.286	0.279				
Non-industry & ordinary industry ^[2]	0.182	0.178	0.171			
Large-scale industry ^[2]		0.124	0.118	0.108	15	10
in which: lime, iron smelting, ammonia, & phosphorus		0.114	0.108	0.098	15	10
calcium carbide		0.104	0.098	0.088	15	10
Agriculture	0.142	0.138	0.132			
Irrigation in poor rural counties	0.075	0.073	0.070			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "large-scale industrial" electricity prices, paying 59.6% of the price normally charged to large industrial customers. Basic prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.23. Fujian Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.213	0.213	0.229	0.229
Non-residential illumination	0.205	0.205	0.225	0.225
Non-industry & ordinary industry	0.125	0.121	0.133	0.129
Agriculture	0.103	0.094	0.103	0.094
Irrigation in poor rural counties	0.048	0.042	0.048	0.042

Source: EB, China Price Yearbook, 1998.

Table 6C.9.24. Guangxi Grid Electricity Rate Schedules

1997

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)				Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	>110 kV	Maximum Demand	Transformer Capacity
					(yuan/kW/month)	(yuan/kVA/month)
Residential	0.300	0.295				
Non-residential illumination	0.318	0.310				
Non-industry & ordinary industry ^[2]	0.221	0.216	0.209			
Large-scale industry ^[2]		0.164	0.156	0.146	15	10
in which: lime, iron smelting, ammonia, & phosphorus		0.154	0.146	0.136	15	10
calcium carbide		0.144	0.136	0.126	15	10
Agriculture	0.174	0.169	0.161			
Irrigation in poor rural counties	0.102	0.100	0.097			

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Medium and small chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices, paying a certain percentage of the price ordinarily charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1998.

Table 6C.9.24. Guangxi Grid Electricity Rate Schedules (continued)

1997 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.218	0.218	0.237	0.237
Non-residential illumination	0.238	0.238	0.257	0.257
Non-industry & ordinary industry	0.159	0.154	0.167	0.162
Agriculture	0.137	0.127	0.134	0.127
Irrigation in poor rural counties	0.068	0.063	0.068	0.063

Source: EB, China Price Yearbook, 1998.

Table 6C.9.25. Sichuan Grid Electricity Rate Schedules

1996

1. Basic Price Schedule

Customer Type	Basic Electricity Charge ^[1]				
	Electricity Price (yuan/kWh)			Maximum Demand	Transformer Capacity
	<1 kV	1-10 kV	35-110 kV	(yuan/kW/month)	(yuan/kVA/month)
Residential	0.230	0.220			
Non-residential illumination	0.313	0.305			
Non-industry & ordinary industry ^[2]	0.219	0.214	0.206		
Large-scale industry ^[2]		0.148	0.141	13.5	9.0
in which: lime, iron smelting, ammonia, & phosphorus		0.138	0.131	13.5	9.0
calcium carbide		0.128	0.121	13.5	9.0
Agriculture	0.173	0.168	0.160		
Irrigation in poor rural counties	0.076	0.074	0.071		

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Nitrogen, phosphorus, and potassium chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 61% of the cost is charged, if large industrial prices are used, then 46% of the price is charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1997.

Table 6C.9.25. Sichuan Grid Electricity Rate Schedules (continued)

1996 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.161		0.180	
Non-residential illumination	0.238		0.257	
Non-industry & ordinary industry	0.162	0.156	0.170	0.154
Agriculture	0.138	0.128	0.138	0.128
Irrigation in poor rural counties	0.048	0.043	0.048	0.043

Source: EB, China Price Yearbook, 1997.

Table 6C.9.26. Inner Mongolia Grid Electricity Rate Schedules

1994

1. Basic Price Schedule, Western Grid

Customer Type	Electricity Price (yuan/kWh)			Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.220	0.210	0.210		
Non-residential illumination	0.284	0.275	0.275		
Non-industry & ordinary industry	0.219	0.213	0.206		
Large-scale industry		0.156	0.148	13.5	9.0
in which: ferroalloy electric arc furnaces, electrolytic caustic soda, ammonia, phosphorus, & Ca-Mg-P fertilizer calcium carbide		0.146	0.138	13.5	9.0
		0.136	0.128	13.5	9.0
Agriculture	0.174	0.168	0.159		
Irrigation in poor rural counties	0.109	0.107	0.104		

2. Basic Price Schedule, Humengling West Grid

Customer Type	Electricity Price (yuan/kWh)			Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	Maximum Demand (yuan/kW/month)	Transformer Capacity (yuan/kVA/month)
Residential	0.220	0.210	0.210		
Non-residential illumination	0.351	0.342	0.342		
Non-industry & ordinary industry	0.295	0.290	0.283		
Large-scale industry		0.187	0.183	15.0	10.0
Agriculture	0.210	0.203	0.193		
Irrigation in poor rural counties	0.101	0.099	0.096		

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

Source: EB, China Price Yearbook, 1994.

Table 6C.9.26. Inner Mongolia Grid Electricity Rate Schedules (continued)

1994 (continued)

3. Wholesale Price Schedule, Western Grid (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.156	0.156	0.172	0.172
Non-residential illumination	0.213	0.213	0.229	0.229
Non-industry & ordinary industry	0.156	0.151	0.164	0.159
Agriculture	0.134	0.124	0.134	0.124
Irrigation in poor rural counties	0.081	0.076	0.081	0.076

4. Wholesale Price Schedule, Humengling West Grid (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.150	0.150	0.169	0.169
Non-residential illumination	0.267	0.267	0.286	0.286
Non-industry & ordinary industry	0.213	0.208	0.224	0.219
Agriculture	0.174	0.162	0.174	0.162
Irrigation in poor rural counties	0.070	0.065	0.070	0.065

Source: EB, China Price Yearbook, 1994.

Table 6C.9.27. Jiangxi Grid Electricity Rate Schedules

1994

1. Basic Price Schedule

Customer Type	Electricity Price (yuan/kWh)			Basic Electricity Charge ^[1]	
	<1 kV	1-10 kV	35-110 kV	Maximum Demand	Transformer Capacity
				(yuan/kW/month)	(yuan/kVA/month)
Residential	0.220	0.215			
Non-residential illumination	0.342	0.333			
Non-industry & ordinary industry ^[2]	0.255	0.249	0.240		
Large-scale industry ^[2]		0.176	0.167	15	10
in which: ferroalloy electric arc furnaces, electrolytic caustic soda, ammonia, phosphorus, & Ca-Mg-P fertilizer		0.166	0.157	15	10
calcium carbide		0.156	0.147	15	10
Agriculture	0.206	0.200	0.189		
Irrigation in poor rural counties	0.078	0.076	0.073		

[1] Either maximum demand or transformer capacity is selected as the method of calculating base charges for each customer.

[2] Small and medium chemical fertilizer factories use "nonindustrial & ordinary industrial" and "large-scale industrial" electricity prices. If nonindustrial prices are used, then 84% of the cost is charged, if large industrial prices are used, then 79% of the price is charged. Basic prices come from this table.

Source: EB, China Price Yearbook, 1994.

Table 6C.9.27. Jiangxi Grid Electricity Rate Schedules (continued)

1994 (continued)

2. Wholesale Price Schedule (yuan/kWh)

Customer Type	Wholesale Price			
	County Level		Under County Level	
	1-10 kV	≥35 kV	1-10 kV	≥35 kV
Residential	0.176			
Non-residential illumination	0.249	0.249		
Non-industry & ordinary industry	0.177	0.170		
Agriculture	0.152	0.141		
Irrigation in poor rural counties	0.049	0.044		

Source: EB, China Price Yearbook, 1994.

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Table 7A.1.1. Energy Exports and Imports

Physical units

EBScopeName	China
-------------	-------

Sum of EBAmount		EBMaterial		EBProcess		EBUom		Electricity		Natural Gas		Total Coal		Total Petroleum	
		Coke				Crude Oil									
		Export		Import		Export		Import		Export		Import		Export	
EBYear		Mt		Mt		Mt		TWh		bm3		Mt		Mt	
1980	1980	(0.27)				(13.31)	0.37					(6.32)	1.99	(18.06)	0.83
1981	1981	(0.20)				(13.75)	0.07		0.30			(6.57)	1.93	(18.84)	0.71
1982	1982	(0.47)				(15.20)	0.64		0.33			(6.44)	2.19	(20.90)	1.57
1983	1983	(0.35)				(15.19)	0.37		0.43			(6.56)	2.14	(20.93)	1.35
1984	1984	(0.37)				(22.29)	0.25	(0.03)	0.80			(6.96)	2.49	(28.69)	1.13
1985	1985	(0.37)		0.02		(30.03)	0.72	(0.04)	1.11			(7.77)	2.31	(36.30)	0.90
1986	1986	(0.46)				(28.50)	1.07	(0.04)	1.21			(9.82)	2.47	(34.62)	3.50
1987	1987	(0.61)				(27.23)	1.72	(0.04)	1.29			(13.53)	1.94	(32.94)	3.23
1988	1988	(1.03)		0.00		(26.05)	0.86	(0.04)	1.51			(15.65)	1.69	(31.42)	5.08
1989	1989	(1.66)				(24.39)	3.26	(0.05)	1.77			(15.34)	2.29	(31.06)	10.65
1990	1990	(1.29)				(23.99)	2.92	(0.09)	1.93			(17.29)	2.00	(31.10)	7.56
1991	1991	(1.08)				(22.60)	5.97	(0.26)	3.11			(20.00)	1.37	(28.83)	10.69
1992	1992	(1.35)				(21.51)	11.36		4.98			(19.66)	1.23	(27.18)	18.68
1993	1993	(2.61)		0.00		(19.43)	15.67	(0.12)	4.51			(19.81)	1.43	(24.06)	33.75
1994	1994	(4.04)		0.00		(18.49)	12.35	(3.89)	1.85			(24.19)	1.21	(22.88)	26.25
1995	1995	(8.86)		0.00		(18.23)	17.09	(6.03)	0.64			(28.62)	1.64	(23.42)	34.01
1996	1996	(7.69)		0.00		(20.40)	22.62	(3.71)	0.12			(36.48)	3.22	(25.91)	42.05
1997	1997	(10.58)		0.00		(19.83)	35.47	(7.20)	0.09	(0.03)		(30.73)	2.01	(27.12)	63.42
1998	1998	(11.46)				(15.60)	27.32	(7.17)	0.02			(32.30)	1.59	(22.42)	54.68
1999	1999	(9.97)				(7.17)	36.61	(9.15)	0.37	(3.38)		(37.44)	1.67	(15.70)	61.91
2000	2000	(15.20)				(10.31)	70.27	(9.88)	1.55	(3.14)		(55.06)	2.18	(20.56)	94.31
2001	2001	(13.85)				(7.55)	60.26	(10.19)	1.80	(3.04)		(90.13)	2.66	(19.07)	87.69
2002	2002	(13.57)				(7.66)	69.41	(9.70)	2.30	(3.20)		(83.90)	11.26	(19.88)	98.73
2003	2003	(14.72)		0.00		(8.13)	91.02	(10.34)	2.98	(1.87)		(94.03)	11.10	(23.34)	128.61
2004	2004	(15.01)		0.01		(5.49)	122.72	(9.48)	3.40	(2.44)		(86.66)	18.61	(19.04)	169.13
2005	2005	(12.76)		0.01		(8.07)	126.82	(11.19)	5.01	(2.97)		(71.72)	26.17	(24.88)	167.32
2006	2006	(14.47)		0.00		(6.34)	145.17	(12.27)	5.39	(2.90)	0.95	(63.27)	38.24	(21.79)	189.33

NB: Natural Gas exports represent sales to Hong Kong.

Table 7A.1.2. Energy Exports and Imports

Mtce

Sum of EBMtce		EBMaterial		EBProcess														Grand Total
		Coke		Crude Oil		Electricity		Natural Gas		Total Coal		Total Petroleum						
EBYear		Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import					
1980		(0.26)		(19.02)	0.52					(4.51)	1.42	(25.83)	1.18				(46.50)	
1981		(0.20)		(19.65)	0.10		0.12			(4.69)	1.38	(26.94)	1.02				(48.87)	
1982		(0.46)		(21.73)	0.92		0.13			(4.60)	1.56	(29.88)	2.25				(51.80)	
1983		(0.34)		(21.71)	0.53		0.17			(4.68)	1.53	(29.92)	1.93				(52.50)	
1984		(0.36)		(31.86)	0.35	(0.01)	0.32			(4.97)	1.78	(41.02)	1.61				(74.16)	
1985		(0.36)	0.02	(42.91)	1.02	(0.02)	0.45			(5.55)	1.65	(51.91)	1.29				(96.32)	
1986		(0.45)		(40.72)	1.54	(0.02)	0.49			(7.01)	1.76	(49.51)	5.01				(88.91)	
1987		(0.60)		(38.90)	2.45	(0.02)	0.52			(9.66)	1.39	(47.10)	4.62				(87.30)	
1988		(1.00)	0.00	(37.22)	1.22	(0.02)	0.61			(11.17)	1.21	(44.93)	7.27				(84.03)	
1989		(1.61)		(34.85)	4.66	(0.02)	0.72			(10.95)	1.64	(44.42)	15.23				(69.61)	
1990		(1.25)		(34.28)	4.18	(0.04)	0.78			(12.35)	1.43	(44.48)	10.81				(75.20)	
1991		(1.05)		(32.29)	8.54	(0.11)	1.26			(14.28)	0.98	(41.22)	15.28				(62.90)	
1992		(1.31)		(30.74)	16.23		2.01			(14.04)	0.88	(38.86)	26.71				(39.12)	
1993		(2.53)	0.00	(27.77)	22.39	(0.05)	1.82			(14.15)	1.02	(34.41)	48.26				(5.41)	
1994		(3.92)	0.00	(26.42)	17.64	(1.57)	0.75			(17.27)	0.86	(32.72)	37.53				(25.12)	
1995		(8.60)	0.00	(26.05)	24.42	(2.43)	0.26			(20.43)	1.17	(33.49)	48.63				(16.53)	
1996		(7.46)	0.00	(29.16)	32.32	(1.50)	0.05			(26.05)	2.30	(37.05)	60.13				(6.42)	
1997		(10.27)	0.00	(28.34)	50.69	(2.91)	0.04	(0.04)		(21.94)	1.44	(38.78)	90.69				40.56	
1998		(11.13)		(22.29)	39.04	(2.90)	0.01			(23.06)	1.13	(32.07)	78.19				26.92	
1999		(9.68)		(10.24)	52.32	(3.69)	0.15	(4.49)		(26.73)	1.19	(22.45)	88.53				64.90	
2000		(14.76)		(14.73)	100.41	(3.99)	0.62	(4.17)		(39.32)	1.56	(29.40)	134.87				131.10	
2001		(13.44)		(10.79)	86.11	(4.12)	0.73	(4.04)		(64.35)	1.90	(27.27)	125.40				90.12	
2002		(13.18)		(10.95)	99.18	(3.92)	0.93	(4.26)		(59.90)	8.04	(28.42)	141.18				128.70	
2003		(14.29)	0.00	(11.62)	130.07	(4.18)	1.20	(2.49)		(67.14)	7.92	(33.37)	183.92				190.02	
2004		(14.58)	0.01	(7.85)	175.37	(3.83)	1.37	(3.25)		(61.88)	13.29	(27.23)	241.86				313.29	
2005		(12.39)	0.01	(11.53)	181.22	(4.52)	2.02	(3.95)		(51.21)	18.69	(35.58)	239.27				322.02	
2006		(14.05)	0.00	(9.06)	207.45	(4.96)	2.18	(3.85)	1.26	(45.18)	27.30	(31.16)	270.75				400.69	

Table 7B.1. Energy Exports and Imports

1. Physical Units

EXPORTS					IMPORTS				
	Coal (Mt)	Coke (Mt)	Crude Oil (Mt)	Petroleum Products ^[1] (Mt)	Electricity (GWh)	Coal (Mt)	Crude Oil (Mt)	Petroleum Products ^[2] (Mt)	Electricity (GWh)
1950	1.96	0.00				0.04	0.04		
1951	0.25	0.00				<0.01	0.06		
1952	0.29	0.00				<0.01	0.10		
1953	0.95	0.00				<0.01	0.11		
1954	1.51	0.04				<0.01	0.15		
1955	1.63	0.00				0.02	0.38		
1956	2.03	0.11				0.24	0.40		
1957	1.88	0.16				0.07	0.38		
1958	2.00	0.04				0.57	0.66		
1959	1.99	0.05				1.25	0.65		
1960	2.12	0.05				1.24	0.59		
1961	2.32	0.04		0.00		1.42	0.06		
1962	2.60	0.05	0.06	0.03		1.41	0.10		
1963	2.60	0.09	0.07	0.01		1.20	0.12		
1964	2.97	0.12	0.09	0.04		1.30	0.12		
1965	3.36	0.12	0.20	0.10		1.99	0.13		
1966	3.97	0.11	0.20	0.20		1.60	0.17		
1967	3.49	0.07	0.16	0.14		1.13	0.06		
1968	2.13	0.07	0.13	0.11		1.08	0.09		
1969	1.46	0.06	0.11	0.14		0.96	0.20		
1970	2.27	0.27	0.19	0.19		1.23	0.47		
1971	2.87	0.39	0.26	0.37		1.22	0.07		
1972	2.82	0.36	0.64	0.89		1.35	0.17		
1973	2.82	0.45	1.83	1.16		1.56	0.18		
1974	2.87	0.44	5.07	1.48		1.84	0.90		
1975	3.00	0.43	9.88	2.10		2.59	1.76		
1976	2.27	0.25	8.50	1.95		2.06	0.80		
1977	2.63	0.20	9.11	1.96		2.04	0.48		
1978	3.12	0.30	11.31	2.07		2.44	0.69		
1979	4.63	0.30	13.43	3.03		2.15	0.26		
1980	6.32	0.27	13.31	4.20		1.99	0.37		
1981	6.57	0.25	13.86	4.67		1.93	0.07		300.00
1982	6.44	0.47	14.68	4.91		2.19	0.64		330.00
1983	6.56	0.35	14.82	4.91		2.14	0.37		430.00
1984	7.04	0.35	22.01	5.70	30.00	2.43	0.25		800.00
1985	7.77	0.37	30.30	6.21	40.00	2.31	0.72	0.07	1,100.00
1986	9.82	0.46	28.50	5.46	40.00	2.47	1.07	1.97	1,210.00
1987	13.53	0.61	27.23	4.94	40.00	1.94	1.72	1.98	1,290.00
1988	15.65	1.03	26.05	4.79	40.00	1.69	0.86	3.07	1,510.00
1989	15.34	1.66	24.39	4.74		2.29	3.26	5.35	1,642.00
1990	17.29	1.30	23.99	5.26	84.60	1.98	2.92	3.17	1,925.00
1991	20.10	1.08	22.60	4.81	260.00	1.37	5.97	4.61	3,110.00
1992	19.70	1.35	21.51	5.39		1.23	11.36	7.78	4,980.00
1993	19.81	2.61	19.43	3.72	117.45	1.43	15.67	17.29	4,506.16
1994	24.19	4.04	18.49	3.79	3,893.00	1.21	12.35	12.77	1,847.00
1995	28.62	8.86	18.22	5.20	6,025.00	1.64	34.01	16.92	639.00
1996	36.48	7.69	20.40	4.17	3,712.00	3.22	22.62	15.83	124.00
1997	30.72	10.58	19.83	5.59	7,204.00	2.00	35.47	23.79	89.00
1998	32.29	11.46	15.60	4.36	7,174.00	1.58	27.32	21.74	17.00
1999	37.41	9.97	7.17	6.45	9,146.00	1.67	36.61	20.82	366.00
2000	55.05	15.20	10.31	8.27	9,880.00	2.12	70.27	18.05	1,550.00
2001	90.12	13.85	7.55	9.19	#####	2.49	60.26	21.38	1,798.09
2002	83.84	13.57	7.21	10.68	9,704.00	10.81	69.41	20.34	2,300.00
2003	93.93	14.75	8.13	13.85	#####	10.76	91.13	28.24	2,980.99
2004	86.61	15.08	5.49	11.45	9,419.89	18.60	122.82	37.87	3,400.10
2005	71.72	12.88	8.07	14.01	#####	26.13	127.08	31.47	5,011.19
2006	63.30	14.57	6.34	12.38	#####	38.24	145.18	36.39	5,388.71

[1] Exports are composed mainly of gasoline, gas oil (diesel), fuel oil, naphtha, aviation kerosene, and lubricant oil base oil. Petroleum products are converted as gasoline or kerosene (1.47 tce/t). These are customs statistics, and may differ slightly from totals in balance tables in some years.

[2] Diesel is the largest component of imports. Smuggling of diesel and gasoline has at times affected trade statistics, particularly in the late 1990s, and official statistics can understate actual imports. These are customs statistics, and may differ slightly from totals in balance tables in some years.

N.B. This table differs from Table 7A.1, Energy Exports and Imports, in providing explanatory notes and data for years prior to 1980. Recent data are Chinese customs statistics. Older data are from the Ministry of Foreign Economic Relations and Trade, as follows: exports of coal before 1984, coke before 1984, crude oil before 1981, oil products before 1981, and electricity before 1989; imports of coal before 1984, crude oil before 1988, oil products before 1985, electricity before 1989; and as noted.

Source: DRC, Almanac of China's Foreign Economic Relations and Trade, various years; China Customs Bureau, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 7B.1. Energy Exports and Imports (continued)

2. Mtce

EXPORTS						IMPORTS				
Year	Coal ^[3]	Coke	Crude Oil	Petroleum Products ^[1]	Electricity ^[3]	Coal ^[3]	Crude Oil	Petroleum Products ^[2]	Electricity ^[4]	
1950	1.96	0.00				0.04	0.06			
1951	0.25	0.00				<0.01	0.09			
1952	0.29	0.00				<0.01	0.14			
1953	0.95	0.00				<0.01	0.16			
1954	1.51	0.03				<0.01	0.22			
1955	1.63	0.00				0.02	0.54			
1956	2.03	0.11				0.24	0.57			
1957	1.88	0.15				0.07	0.54			
1958	2.00	0.03				0.57	0.95			
1959	1.99	0.05				1.25	0.94			
1960	2.12	0.04				1.24	0.85			
1961	2.32	0.04		0.00		1.42	0.08			
1962	2.60	0.05	0.09	0.04		1.41	0.15			
1963	2.60	0.09	0.11	0.01		1.20	0.17			
1964	2.97	0.12	0.13	0.05		1.30	0.18			
1965	3.36	0.12	0.28	0.15		1.99	0.18			
1966	3.97	0.11	0.28	0.29		1.60	0.24			
1967	3.49	0.07	0.23	0.20		1.13	0.08			
1968	2.13	0.06	0.19	0.16		1.08	0.13			
1969	1.46	0.06	0.15	0.21		0.96	0.28			
1970	2.27	0.26	0.27	0.28		1.23	0.68			
1971	2.87	0.38	0.38	0.55		1.22	0.11			
1972	2.82	0.35	0.91	1.31		1.35	0.24			
1973	2.82	0.44	2.62	1.71		1.56	0.25			
1974	2.87	0.42	7.25	2.17		1.84	1.28			
1975	3.00	0.42	14.13	3.09		2.59	2.51			
1976	2.27	0.24	12.15	2.86		2.06	1.14			
1977	2.63	0.20	13.02	2.89		2.04	0.68			
1978	3.12	0.29	16.18	3.05		2.44	0.99			
1979	4.63	0.29	19.21	4.46		2.15	0.37			
1980	6.32	0.26	19.03	6.18		1.99	0.52			
1981	6.57	0.24	19.82	6.86		1.93	0.10		0.12	
1982	6.44	0.46	20.99	7.22		2.19	0.92		0.13	
1983	6.56	0.34	21.19	7.22		2.14	0.53		0.17	
1984	7.04	0.34	31.47	8.38	0.01	2.43	0.35		0.32	
1985	7.77	0.36	43.33	9.13	0.02	2.31	1.02	0.10	0.44	
1986	9.82	0.45	40.75	8.02	0.02	2.47	1.54	2.87	0.49	
1987	13.53	0.59	38.93	7.26	0.02	1.94	2.45	2.89	0.52	
1988	15.65	1.00	37.24	7.05	0.02	1.69	1.22	4.48	0.61	
1989	15.34	1.61	34.87	6.96		2.29	4.67	7.80	0.66	
1990	17.29	1.26	34.30	7.74	0.03	1.98	4.18	4.62	0.78	
1991	20.10	1.05	32.32	7.08	0.11	1.37	8.54	6.73	1.26	
1992	19.70	1.31	30.76	7.92		1.23	16.24	11.36	2.01	
1993	19.81	2.53	27.79	5.46	0.05	1.43	22.41	25.25	1.82	
1994	24.19	3.92	26.44	5.57	1.57	1.21	17.65	18.64	0.75	
1995	28.62	8.60	26.05	7.64	2.43	1.64	48.63	24.70	0.26	
1996	36.48	7.45	29.17	6.13	1.50	3.22	32.34	23.11	0.05	
1997	30.72	10.26	28.36	8.22	2.91	2.00	50.72	34.73	0.04	
1998	32.29	11.12	22.31	6.41	2.90	1.58	39.07	31.74	0.01	
1999	37.41	9.67	10.25	9.48	3.69	1.67	52.35	30.40	0.15	
2000	55.05	14.74	14.74	12.16	3.99	2.12	100.49	26.53	0.63	
2001	90.12	13.43	10.80	13.51	4.12	2.49	86.17	31.43	0.73	
2002	83.84	13.16	10.31	15.70	3.92	10.81	99.26	29.90	0.93	
2003	93.93	14.31	11.63	20.36	4.18	10.76	130.31	41.51	1.20	
2004	86.61	14.63	7.85	16.83	3.81	18.60	175.63	55.67	1.37	
2005	71.72	12.50	11.54	20.59	4.52	26.13	181.73	46.26	2.02	
2006	63.30	14.14	9.06	18.19	4.96	38.24	207.61	53.50	2.18	

[1] Exports are composed mainly of gasoline, gas oil (diesel), fuel oil, naphtha, aviation kerosene, and lubricant oil base oil. Petroleum products are converted as gasoline or kerosene (1.47 tce/t). These are customs statistics, and may differ slightly from totals in balance tables in some years.

[2] Diesel is the largest component of imports. Smuggling of diesel and gasoline has at times affected trade statistics, particularly in the late 1990s, and official statistics can understate actual imports. These are customs statistics, and may differ slightly from totals in balance tables in some years.

[3] Exported coal is of high quality and is here assumed to be equivalent to standard coal (29.3 GJ/t, low heat).

[4] Converted at 0.404 kgce/kWh.

N.B. This table differs from Table 7A.1, Energy Exports and Imports, in providing explanatory notes and data for years prior to 1980. Recent data are Chinese customs statistics. Older data are from the Ministry of Foreign Economic Relations and Trade, as follows: exports of coal before 1984, coke before 1984, crude oil before 1981, oil products before 1981, and electricity before 1989; imports of coal before 1984, crude oil before 1988, oil products before 1985; electricity before 1989; and as noted.

Source: DRC, Almanac of China's Foreign Economic Relations and Trade, various years; China Customs Bureau, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 7B.1. Energy Exports and Imports (continued)

3. Net Trade, Mtce

Year	Coal and Coke ^[3]			Petroleum & Products ^[1, 2]			Electricity ^[4]			Net Energy Trade ^[5]
	Exports	Imports	Net Trade ^[5]	Exports	Imports	Net Trade ^[5]	Exports	Imports	Net Trade ^[5]	
1950	1.96	0.04	1.92		0.06	0.06				1.98
1951	0.25	<0.01	0.25		0.09	0.09				0.34
1952	0.29	<0.01	0.29		0.14	0.14				0.44
1953	0.95	<0.01	0.95		0.16	0.16				1.11
1954	1.54	<0.01	1.54		0.22	0.22				1.76
1955	1.63	0.02	1.61		0.54	0.54				2.15
1956	2.14	0.24	1.90		0.57	0.57				2.47
1957	2.03	0.07	1.96		0.54	0.54				2.51
1958	2.03	0.57	1.47		0.95	0.95				2.42
1959	2.04	1.25	0.79		0.94	0.94				1.72
1960	2.16	1.24	0.92		0.85	0.85				1.77
1961	2.36	1.42	0.93	0.00	0.08	0.08				1.01
1962	2.65	1.41	1.24	0.13	0.15	0.02				1.26
1963	2.69	1.20	1.48	0.12	0.17	0.05				1.53
1964	3.09	1.30	1.79	0.18	0.18	(0.00)				1.79
1965	3.48	1.99	1.49	0.43	0.18	(0.25)				1.24
1966	4.08	1.60	(2.48)	0.57	0.24	(0.33)				(2.82)
1967	3.56	1.13	(2.43)	0.43	0.08	(0.35)				(2.78)
1968	2.19	1.08	(1.12)	0.34	0.13	(0.21)				(1.33)
1969	1.52	0.96	(0.55)	0.36	0.28	(0.08)				(0.64)
1970	2.53	1.23	(1.30)	0.56	0.68	0.12				(1.18)
1971	3.25	1.22	(2.03)	0.92	0.11	(0.82)				(2.85)
1972	3.17	1.35	(1.81)	2.22	0.24	(1.98)				(3.79)
1973	3.26	1.56	(1.69)	4.33	0.25	(4.08)				(5.77)
1974	3.29	1.84	(1.45)	9.42	1.28	(8.14)				(9.59)
1975	3.42	2.59	(0.82)	17.21	2.51	(14.70)				(15.52)
1976	2.51	2.06	(0.45)	15.01	1.14	(13.87)				(14.31)
1977	2.83	2.04	(0.78)	15.91	0.68	(15.23)				(16.01)
1978	3.41	2.44	(0.97)	19.23	0.99	(18.24)				(19.21)
1979	4.92	2.15	(2.77)	23.67	0.37	(23.30)				(26.07)
1980	6.58	1.99	(4.59)	25.21	0.52	(24.69)			0.00	(29.28)
1981	6.81	1.93	(4.88)	26.68	0.10	(26.58)		0.12	0.12	(31.34)
1982	6.90	2.19	(4.72)	28.21	0.92	(27.29)		0.13	0.13	(31.87)
1983	6.89	2.14	(4.75)	28.41	0.53	(27.88)		0.17	0.17	(32.46)
1984	7.38	2.43	(4.95)	39.85	0.35	(39.50)	0.01	0.32	0.31	(44.14)
1985	8.13	2.31	(5.82)	52.46	1.02	(51.44)	0.02	0.44	0.43	(56.83)
1986	10.27	2.47	(7.80)	48.77	4.41	(44.36)	0.02	0.49	0.47	(51.69)
1987	14.12	1.94	(12.18)	46.20	5.35	(40.85)	0.02	0.52	0.51	(52.53)
1988	16.65	1.69	(14.96)	44.29	5.70	(38.59)	0.02	0.61	0.59	(52.96)
1989	16.95	2.29	(14.66)	41.84	12.47	(29.37)		0.66	0.66	(43.36)
1990	18.55	1.98	(16.57)	42.04	8.80	(33.24)	0.03	0.78	0.74	(49.06)
1991	21.15	1.37	(19.78)	39.39	15.27	(24.13)	0.11	1.26	1.15	(42.76)
1992	21.01	1.23	(19.78)	38.68	27.60	(11.08)		2.01	2.01	(28.85)
1993	22.34	1.43	(20.91)	33.25	47.66	14.41	0.05	1.82	1.77	(4.73)
1994	28.11	1.21	(26.90)	22.28	25.12	2.84	1.57	0.75	(0.83)	(24.89)
1995	37.21	1.64	(35.58)	23.42	50.93	27.51	2.43	0.26	(2.18)	(10.25)
1996	43.94	3.22	(40.72)	24.57	38.45	13.88	1.50	0.05	(1.45)	(28.30)
1997	40.98	2.00	(38.98)	25.42	59.26	33.84	2.91	0.04	(2.87)	(8.02)
1998	43.41	1.58	(41.83)	19.96	49.06	29.10	2.90	0.01	(2.89)	(15.62)
1999	47.08	1.67	(45.41)	19.73	82.75	63.02	3.69	0.15	(3.55)	14.06
2000	69.79	2.12	(67.67)	26.90	127.02	100.12	3.99	0.63	(3.37)	29.08
2001	103.55	2.49	(101.06)	24.31	117.60	93.29	4.12	0.73	(3.39)	(11.16)
2002	97.00	10.81	(86.19)	26.01	129.16	103.15	3.92	0.93	(2.99)	13.96
2003	108.24	10.76	(97.48)	31.99	171.82	139.84	4.18	1.20	(2.97)	39.39
2004	101.24	18.60	(82.64)	24.69	231.29	206.61	3.81	1.37	(2.43)	121.53
2005	84.22	26.13	(58.09)	32.13	227.99	195.86	4.52	2.02	(2.50)	135.27
2006	77.43	38.24	(39.19)	27.26	261.11	233.85	4.96	2.18	(2.78)	191.88

[1] Exports are composed mainly of gasoline, gas oil (diesel), fuel oil, naphtha, aviation kerosene, and lubricant oil base oil. Petroleum products are converted as gasoline or kerosene (1.47 tce/t). These are customs statistics, and may differ slightly from totals in balance tables in some years.

[2] Diesel is the largest component of imports. Smuggling of diesel and gasoline has at times affected trade statistics, particularly in the late 1990s, and official statistics can understate actual imports. These are customs statistics, and may differ slightly from totals in balance tables in some years.

[3] Exported coal is of high quality and is here assumed to be equivalent to standard coal (29.3 GJ/t, low heat).

[4] Converted at 0.404 kgce/kWh.

[5] Negative, parenthesized, values signify net exports; positive values indicate net imports.

N.B. Recent data are Chinese customs statistics. Older data are from the Ministry of Foreign Economic Relations and Trade, as follows: exports of coal before 1984, coke before 1984, crude oil before 1981, oil products before 1981, and electricity before 1989; imports of coal before 1984, crude oil before 1988, oil products before 1985; electricity before 1989; and as noted.

Source: DRC, Almanac of China's Foreign Economic Relations and Trade, various years; China Customs Bureau, various years; NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Figure 7B.1. Net Energy Trade, 1950-2006

Note: Natural gas trade has remained negligible for this period.

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1]

1. 1993

Country	Coal & Coal Products (t)		Crude Oil (t)		Petroleum Distillates ^[2] (t)		Other Petroleum Products & Byproducts ^[3] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Angola				1,224,482						
Argentina				201,035		23,863	53			
Australia	11	403,742		402,967	90	5,351	3,309	6,018		
Austria						1				
Bahrain					1		101			
Bangladesh	5,513				312	5,499	3,449			
Belgium	247,743					1,434	19,802	99		
Brazil	451,797					2		29		
Bulgaria	16,000					24,554				
Burma (Myanmar)	133	6,370			5,302	7	32,662			
Belarus						1,000				
Canada	5,000					120,508		155		
Chile							290			
Columbia							9,800			
Costa Rica							263			
Brunei Darussalam										
Cuba							600			
Cyprus							70			
Denmark						62	35			
Ecuador					75		2,359			
El Salvador							2,003			
Egypt	15,000					1,871	27,273	32		
Estonia						4,966				
Finland							333			
Former Soviet Union	1,540	7,142		13,923	270	1,265,021	11,124	1,453		33,171
France	651,248				42	2,226	1	69		
Gabon				126,740						
Gambia	3									
Germany	464,417			1	113	2,608	7,259	195		
Ghana							102			
Greece								850		
Greenland						599				
Guinea				70,208						
Honduras							480			
Hong Kong	1,971,312	3			456,754	383,866	33,279	47,373		4,472,990
Hungary						4,000	8,000			
India	137,327					68,371	135,232	28		
Indonesia	159,426	3	369,128	4,017,944	2,688	89,684	8,651	21,334		
Iran	55,000			67,860	67	415	10,073	64		
Iraq						23		7		
Israel	60,020		117,438							
Italy	185,714					72,200	1,756	74		
Jamaica					1		223			
Japan	6,730,486	1,351	12,695,794		413,734	932,324	546,307	102,675		
Jordan	410						116			
Kazakhstan	14,229				3,110	3,669	40			
Kenya					198		752			
Korea (DPRK)	1,751,415	154,926	1,032,954	19,022	78,265	16,508	12,666	5,158		
Korea (ROK)	5,424,083	18	1,605,140	1,941	545,981	2,188,273	26,493	92,469		
Kuwait						5,375	41	1,636		
Laos					14	162	206			

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

1. 1993 (continued)

Country	Coal & Coal Products (t)		Crude Oil (t)		Petroleum Distillates ^[2] (t)		Other Petroleum Products & Byproducts ^[3] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Lebanon					55		359			
Libya				708,352						
Liechtenstein						7				
Macau	3				17,206	528	3,249		117,445	
Malaysia	121,221			513,131	8,516	25,381	5,003	3		
Mauritius					7		330			
Mexico	35,000					200,422	11,643	27		
Mongolia (Outer)	211				271	4	1,241	20		
Morocco							1,602			
Mozambique							1,510			
Nepal					1		545			
Netherlands	377,708				1	59,210	1,142	401		
New Zealand	140	122,763			13	21,051	3,114	903		
Nigeria	45,003									
Norway	45,472					251	1,177			
Oman				4,088,791		6,780				
Pakistan	434			196,249	620	8,601	5,627	2,584		
Panama							665	11,115		
Papua New Guinea				775,991						
Peru	179,800						315	10		
Philippines	190,142		109,402	1,000	49,194	111,007	19,896	238,099		
Poland		4					791			
Qatar						15,567		10,785		
Romania	88,957					209,926	1,901			
Saudi Arabia				214,794	11	63,418	35	50,142		
Singapore	32,582	14	727,548	315,858	1,998,157	9,396,443	10,011	378,773		
Slovak Republic							2,362			
South Africa		40,700				88	36,097	117		
Spain						20	8,223	3,725		
Sri Lanka						24,344	727			
Sweden	60,052					5	140	148		
Switzerland						58		5		
Syria							53			
Taiwan	2,229,163	47			1,752	45,147	18,146	2,751		
Tanzania							320			
Thailand	213,749				79,412	48,546	14,038	19,495		
Tunisia						20,000				
Turkey	136,756						43			
Uganda					1					
UAE				571,823	13	358	190			
United Kingdom	398,410	3		188,618	21	24,217	788	1,881		
United States	75,569	145	2,777,088	6,072	52,352	1,606,522	32,928	9,724		
Vietnam	25	692,516		288,975	27	54,299	847			
Rep. Yemen				1,655,428	350		488	1,855		
Other ^[4]		199			5	127,805	1,890	3,778		
Total	22,578,224	1,429,947	19,434,492	15,671,205	3,715,002	17,294,447	1,092,637	1,016,059	117,445	4,506,161

[1] Customs statistics indicate proximate destination only, not final destination. Thus figures for fossil fuels may not reflect the actual balance of trade with some trading partners, especially Hong Kong, from where many Chinese goods are transshipped to another destination.

[2] Includes gasoline, naphtha, other light distillates, kerosene and other middle distillates, diesel, fuel oil, lube oil and grease, and other heavy distillates.

[3] Includes waxes, petroleum jelly, liquefied petroleum gases, asphalt, bitumen, coke, and other byproducts.

[4] Other petroleum product exports are mainly small amounts of paraffin. Other coal and petroleum product imports are mainly from overseas branches of Chinese companies.

Source: China Customs Bureau, 1994.

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

2. 1999

Country	Coal & Coal Products ^[2] (t)		Coke (t)		Other Coking Products ^[3] (t)		Crude Oil (t)		Petroleum Distillates ^[4] (t)		Other Petroleum Products & Byproducts ^[5] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Algeria											500	213,880		
Angola							2,876,005							
Antigua & Bermuda									639					
Argentina											36	22		
Australia		1,095,077	99,990		<0.5	1,889	262,626	901,045	36,800	11,849	7,270	338,724		
Austria			232,316						9,268	3	14	2		
The Bahamas									5,727					
Bahrain									40	177,012				
Bangladesh			10,930		362				437		7,885			
Belarus									261					
Belgium	138,103		657,872			1				83,877	20	166		
Belize									11,049					
Bhutan			12,738											
Bonaire									70					
Brazil	201,098		543,498							19	530	15		
Brunei Darussalam														
Bulgaria			96,244											
Burma (Myanmar)			1,740		71				23,934		38,606		1,552	
Cambodia									2,537		22			
Cameroon					9		253,163				33			
Canada	110,662	112	69,099		<0.5	52			19,147	344	204	147		
Chile									1		1,842			
Congo							384,708							
Colombia											20,985			
Costa Rica											1,938			
Croatia									850		60			
Cuba			9,527								159			
Cyprus									30,505					
Czech Republic												<0.5		
Denmark	<0.5								1,153	67	219	<0.5		
Djibouti											40			
Dominica									20		170			
Dominican Republic											5,102			
Ecuador											3,098			
El Salvador									7,073		6,015			
Egypt			71,918		74		112,589		136		59			
Equatorial Guinea							812,657				-			
Eritrea											95			
Ethiopia		<0.5				<0.5			196		94			
Fiji											17			
Finland									6,052	41,019	338	22		
France	776,694	<0.5	725,661		<0.5	253			29,982	17,633	20,080	165		
Gabon							651,774		85		2			
Georgia									389		-			
Germany	252,758		310,099	12		622	<0.5		48,458	7,002	27,863	2,234		
Ghana											5,893			
Greece	139,737								5,126		829			
Guatemala											10,803			
Guinea											200			
Haiti											72			
Honduras									3,576		4,970			

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

2. 1999 (continued)

Country	Coal & Coal Products ^[2] (t)		Coke (t)		Other Coking Products ^[3] (t)		Crude Oil (t)		Petroleum Distillates ^[4] (t)		Other Petroleum Products & Byproducts ^[5] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Hong Kong	942,906	<0.5	40,438		594	240			776,243	43,756	2,517,288	10,291	9,069,655	234,625
Hungary									2,732					
India	805,506		1,240,863		322				44,178	1	120,411	77		
Indonesia	156,172		46,748		311		241,506	3,952,948	28,604	205,679	21,680	368,442		
Iran			170,836		284	14,684		3,949,291	279,995	93,090	3,722	385,734		
Iraq								974,155	58		295,812	200		
Ireland										10		11		
Israel			147						2,327	5	599	<0.5		
Italy	367,973				20	1			11,063	392	1,231	143		
Ivory Coast										41,601	505			
Jamaica											143			
Japan	12,748,230	43	1,053,524	4	102,812	66,398	4,980,900	1	331,384	1,200,998	329,102	220,197		
Jordan			195						26		54			
Kazakhstan	14,016		33,295			2,558		490,807	9,349		520	10		
Kenya								24,172			826			
Korea (DPRK)	434,817	12,211	72,970		5,820		317,241		122,950	19,180	1,898	4,534	115	
Korea (ROK)	13,420,842	9	166,435		47,090	138,977	948,384		896,079	9,480,148	23,146	1,322,867		
Kuwait	14							330,443	1,149	1,200	78	90,196		
Kyrgyzstan									1,013					
Laos					7						25			
Latvia											40			
Lebanon			7						21		379			
Liberia									15,627		400			
Libya								132,592						
Luxembourg									263	<0.5				
Macau					8				50,314		6,261		74,692	
Madagascar					<0.5						1,681			
Malaysia	167,129	2	76,287		169	4		247,425	7,937	430,723	9,193	397,461		
Mali									4					
Malta									33,851					
Marshall Islands									227					
Mauritania									<0.5					
Mauritius									28		461			
Mexico	55,000		76,414							1	63,515			
Mongolia		<0.5	155		30		10,531		13,002		5			
Morocco	157,429		10,873								300	<0.5		
Mozambique											20			
Nepal									1,477		40			
Netherlands	62,044	39	581,872			135	<0.5		16,861	2,948	65,665	237		
New Zealand	126	131,995	537		32				32	1	3,577	15,021		
Nigeria								1,369,168			60	42,391		
Norway	32,975		116,037					2,009,860	2,356	<0.5	536			
Oman								5,020,825						
Pakistan			46,155		1			53,874	3,987		3,263			
Panama									119,264		2,049			
Papua New Guinea								149,205			62			
Peru			186,970								2,122			
Philippines	594,063		22,446		98				8,107	226,966	41,707	60,719		
Poland	<0.5	1							559		2,754	2,178		
Portugal										<0.5	918			

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

2. 1999 (continued)

Country	Coal & Coal Products ^[2] (t)		Coke (t)		Other Coking Products ^[3] (t)		Crude Oil (t)		Petroleum Distillates ^[4] (t)		Other Petroleum Products & Byproducts ^[5] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Qatar					560							123,975		
Romania			125,877						3,548					
Russia	150	1,638	15		125,133	18,512	572,276		20,546	2,068,987	456,399	342		131,521
Rwanda											258			
St. Vincent & The Grenadines									21,179					
Samoa											20			
Saudi Arabia	100		384			4	2,496,968		9	199,847	60	1,184,151		
Senegal											20			
Singapore	7		1,878		45	5,523	58,510	4,767	2,303,595	4,934,163	7,220	702,712		
Slovenia											2,578			
South Africa	49	300,886	524,086		180	1,512	365,730			506	40,009	1,449		
Spain										586	10,027	18		
Sri Lanka			254							<0.5	931			
Sudan							266,126		148		44			
Sweden			80,806			200			11,231	1,902	28	13		
Switzerland			293,757						21,987	3	<0.5	1		
Syria									13	46,825	577			
Taiwan	5,515,831	5	221,313		2,121	492			74,185	196,396	29,216	114,221		
Tajikistan									23					
Tanzania			25								254			
Thailand	160,224		70,000		152	12,584			66,278	40,259	12,329	732,896		
Trinidad & Tobago										83,496	228	488		
Tunisia											63			
Turkey	166		356,211						5,276	11	24,967	2		
Turkmenistan									128					
Tuvalu									3	<0.5				
Uganda									1		63			
Ukraine						2,400			2,064					
United Arab Emirates			4,654			<0.5			15	57,824	194	745,616		
United Kingdom	151,562		375,810		543	233	<0.5	2,196,098	14,076	103,118	13,593	996		
United States	7,634	177	1,122,020			1,329	358,104	360,351	160,634	978,440	262,264	20,962		
Uruguay											117			
Uzbekistan									1,327					
Vanuatu									1,007					
Venezuela							<0.5				538	388,392		
Vietnam		136,404	12,269		51		1,511,950		715,513	243	11,501	13,037		
Republic of Yemen							4,132,183		158	14,252	252			
Yugoslavia									3,726					
Other						2			332	2,807		9,175		
Total	37,414,018	1,678,600	9,974,197	16	305,017	268,603	7,167,271	36,613,688	6,451,581	20,815,192	4,561,864	7,514,530	9,146,014	366,146

[1] Customs statistics indicate proximate destination only, not final destination. Thus figures for fossil fuels may not reflect the actual balance of trade with some trading partners, especially Hong Kong, from where many Chinese goods are transshipped to another destination.

[2] Includes anthracite, coking coal and other bituminous coal, lignite, briquettes, and coal slurry.

[3] Includes retort carbon, coal distillates, tar, and other byproducts.

[4] Includes gasoline, naphtha, other light distillates, kerosene and other middle distillates, diesel, fuel oil, lube oil and grease, and other heavy distillates.

[5] Includes waxes, petroleum jelly, liquefied petroleum gases, asphalt, bitumen, petroleum coke, and other petroleum and asphalt byproducts.

[6] Petroleum product exports in this category are mainly small amounts of paraffin. Coal and petroleum product imports in this category are mainly from overseas branches of Chinese companies.

Source: China Customs Bureau, 2000.

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

3. 2001

Country	Coal & Coal Products ^[2] (t)		Coke (t)		Other Coking Products ^[3] (t)		Crude Oil (t)		Petroleum Distillates ^[4] (t)		Other Petroleum Products & Byproducts ^[5] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Algeria			63,829						210		7	267,647		
Angola							3,798,883				360			
Antigua & Bermuda									3,553					
Argentina					2		136,991				256	12,340		
Australia		670,442	43,652		2,974		145,507	709,121	219,212	68,155	28,228	265,742		
Austria									7,730	15		0		
The Bahamas									16,405					
Bahrain									132	84,019	22,233	13,517		
Bangladesh	20		11,653								8,430			
Belarus									1,499					
Belgium	356,660		1,377,837							86,187	68,393	344		
Belize									8,882					
Bhutan			25,325											
Bolivia											390			
Bonaire														
Brazil	1,948,792		1,018,847						662	5	7,581			
Brunei Darussalam							753,856		7					
Bulgaria	43,001		80,871											
Burma (Myanmar)	8,360		1,722		551				31,239		55,785		504	
Cambodia									3,280		10			
Cameroon							815,286							
Canada	105,688	480	100,369		5,988	0			17,075	494	10,139	89		
Chile			33,096								1,773			
Congo							641,613					6,620		
Colombia											12,388			
Costa Rica			16								3,407			
Croatia	132,573		42,015											
Cuba			3,091								845			
Cyprus									64,967					
Czech Republic											40			
Denmark	206,704				46				5,877	6	62	164		
Djibouti											180			
Dominica											2,126			
Dominican Republic											3,780			
Ecuador	5										6,267			
El Salvador											1,410			
Egypt			111,089		0				874	27,584	154	5,658		
Equatorial Guinea							2,146,416							
Eritrea														
Estonia											100			
Ethiopia		220							103		77			
Fiji														
Finland	119,993								8,973	1	40			
France	583,283		561,137			230			23,033	5,882	9,379	7,090		
Gabon							146,970							
Georgia									0					
Germany	210,589	7	318,676	21		65	141,602		34,389	10,151	6,728	1,737		
Ghana					1,101				13		46,238			
Greece	265,094								8,792	43	186			
Guatemala											14,236			
Guyana					20									

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

3. 2001 (continued)

Country	Coal & Coal Products ^[2] (t)		Coke (t)		Other Coking Products ^[3] (t)		Crude Oil (t)		Petroleum Distillates ^[4] (t)		Other Petroleum Products & Byproducts ^[5] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Guinea												35		
Haiti									1,739			975		
Honduras									867,280	37,913	2,232,773	33,139	9,991,757	1,595,276
Hong Kong	3,391,395		890		3,434	62			718	8		8		
Hungary									253	1				
Iceland	2,681								4,167	160,866	193,400	42,128		
India	3,406,315	54	1,916,728		298		61,232		406,057	251,116	8,422	315,250		
Indonesia	18,022	843,204	54,976		1,839		1,268,080	2,645,061	98,212	82,878	5,726	352,126		
Iran			485,887		90	906		10,847,009						
Iraq	100							372,056			100			
Ireland										0	15			
Israel			40						4,010	6	3,688	0		
Italy	324,034		521,092						40,986	320	1,984	545		
Ivory Coast					18						555			
Jamaica											22			
Japan	26,516,536	2	2,020,524	57	50,432	72,603	4,179,926		876,308	910,362	549,836	242,797		
Jordan			550		1				26					
Kazakhstan	4,013		188,162		317	2,093		649,575	32,434	3,979	660	4,167		
Kenya											799			
Korea (DPRK)	419,880	86,361	125,497		4,405		579,278		109,306		2,282	8,747	63	36,289
Korea (ROK)	28,938,080	1	209,316		22,667	237,822	366,412		1,327,116	10,750,703	24,821	660,072		
Kuwait	40							1,459,823			200	244,475		
Kyrgyzstan									251					
Laos											12			
Latvia		26									700			
Lebanon									12		1,055			
Liberia									33,519		200			
Libya							250,366							
Luxembourg									60					
Macau														
Madagascar	10								3		1,262			
Malaysia	370,052		119,955			16,224	68,163	899,451	16,318	796,787	6,784	352,738		
Mali									5		1			
Malta									129,998					
Marshall Islands									63					
Mauritania														
Mauritius									12		493			
Mexico	137,842		261,852							0	99,650	1		
Mongolia			506		13		9,894		28,788		578		5,913	
Morocco	43,061										500			
Mozambique											17			
Nepal									1,969		140			
Netherlands	1,268,496	15	1,172,171			192			17,193	1,234	46,101	321		
New Zealand	184	233,333	1,655						38	29,999	2,367	29,674		
Nicaragua											2,220			
Nigeria							772,502		193,322		500	25,104		
Norway	57,924		108,379				915,730		1,926	0	1,111	89,817		
Oman							8,140,355							
Pakistan			29,878						3,360		2,904			
Panama									246,425		1,662			

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

3. 2001 (continued)

Country	Coal & Coal Products ^[2] (t)		Coke (t)		Other Coking Products ^[3] (t)		Crude Oil (t)		Petroleum Distillates ^[4] (t)		Other Petroleum Products & Byproducts ^[5] (t)		Electricity (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Papua New Guinea							75,987				20			
Paraguay											16			
Peru	5		201,511								5,971			
Philippines	3,812,450		15,841						230,784	322,812	14,173	34,237		
Poland						212			1,331					
Portugal											160			
Qatar							1,325,553			49,479	302	97,600		
Romania			43,794		15				3,063		20			
Russia	22,307	178,906	2,216		31,795	24,637	1,765,975		28,980	2,910,748	479,168	456		166,528
Rwanda											85			
St. Vincent & The Grenadines														
Samoa														
Saudi Arabia	10		434		9		8,778,376			171,192	40	957,805		
Senegal											115			
Serbia and Montenegro			100											
Singapore	40				32	13,881	164,004		2,287,940	3,308,133	22,818	639,233		
Slovenia			59,181							0	21			
South Africa		120,507	460,146		108	2,716			62	30,419	20,888	1,735		
Spain	732,414	21	21,772			2,018			39	970	7,663	156		
Sri Lanka			616						50		1,872			
Sudan							4,973,387		17			3,210		
Sweden	16		286,193						15,010	7,014	80			
Switzerland									19,787	59		0		
Syria					5				177		960			
Taiwan	15,946,447	-	269,359	2	281	53,355	0	-	7,680	323,079	26,785	346,496		
Tajikistan											7,096			
Tanzania	6										66			
Thailand	140,752		59,187		301	36,195	68,558	226,760	9,711	245,290	10,642	865,488		
Trinidad & Tobago											82	220		
Tunisia					2						120			
Turkey	64,303		433,373						13,223	3	22,928			
Turkmenistan									25					
Tuvalu														
Uganda									3		58			
Ukraine						1,274			1,131					
United Arab Emi	54,950		3,151				649,766		28,950	152,614	118	689,384		
United Kingdom	379,140	36	90,432			540	502,032		14,179	1,073	10,296	72,270		
United States	81,969	652	874,496	143	5	6,983	649,445		419,749	238,453	390,725	109,930		
Uruguay											321			
Uzbekistan									1,712	8,756				
Vanuatu									300					
Venezuela	26				0		55,569			286,212	13,031	1,003,634		
Vietnam	21,084	519,670	23,200		110		3,362,440		1,039,827	10,834	15,960			
Republic of Yemen							2,286,946		158		20			
Yugoslavia*														
Zimbabwe											78			
Other	15,946,515	3,087	269,364	2	371	53,379	0	0	155,507	323,869	45,285	358,678	193,262	
Total	90,135,410	2,657,026	13,856,287	223	59,762	475,069	7,550,605	60,255,351	9,189,960	21,376,645	4,576,974	7,816,096	10,191,499	1,798,093

[1] Customs statistics indicate proximate destination only, not final destination. Thus figures for fossil fuels may not reflect the actual balance of trade with some trading partners, especially Hong Kong, from where many Chinese goods are transshipped to another destination.

[2] Includes anthracite, coking coal and other bituminous coal, lignite, briquettes, and coal slurry.

[3] Includes retort carbon, coal distillates, tar, and other byproducts.

[4] Includes gasoline, naphtha, other light distillates, kerosene and other middle distillates, diesel, fuel oil, lube oil and grease, and other heavy distillates.

[5] Includes waxes, petroleum jelly, liquefied petroleum gases, asphalt, bitumen, petroleum coke, and other petroleum and asphalt byproducts.

[6] Petroleum product exports in this category are mainly small amounts of paraffin. Coal and petroleum product imports in this category are mainly from overseas branches of Chinese companies.

* 1991: Serbia and Montenegro

Source: China Customs Bureau, 2002

Table 7B.2. Energy Exports and Imports by Destination and Origin⁽¹⁾ (continued)

4. 2006

Country	Coal & Coal Products ⁽²⁾ (t)		Coke ⁽³⁾ (t)		Crude Oil ⁽⁴⁾ (t)		Petroleum Products ⁽⁵⁾ (t)		Petroleum Jelly;Waxes ⁽⁶⁾ (t)		Liquid Natural Gas ⁽⁷⁾ (t)		Electricity ⁽⁸⁾ (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Albania										0.25				
Algeria	10		32,434			256,724	105			60.00				
Angola						23,452,009				0.60				
Antigua & Barbuda							34,352							
Argentina	44					1,703,741	474	0		908.00				
Australia	886	6,896,551	4,490		276,407	402,130	101,648	804		1,646.80	54.41	687,532		
Austria							34,794	41		42.00	4.58			
Bahamas							35,774							
Bahrain	10						344							
Bangladesh			2,261				1,635			4,188.95				
Barbados							11							
Belarus							56							
Belgium	189,612		2,255,731				5,671	7,856		168.00	246.92			
Belize							7,083							
Benin							23							
Bermuda							6,723							
Bolivia										20.00				
Brazil	190,869	0	1,500,878	0.34		2,222,755	868	148		1,840.00	110.50			
Brunei Darussalam						418,149	1,491							
Bulgaria			10,500							0.01				
Burundi										83.00				
Cambodia							10,449							
Canada	154	146,134	359,886			43,729	79,509	2,990		2,604.89	65.79			
Cayman Islands							2,533							
Chad						553,727								
Chile	75						285			3,070.02	1.17			
China		0		65.60				218			8,653.33			3,252
Colombia		0		0.00		94,128		33,108		9,158.00				
Comoros							2							
Congo						5,419,044								
Costa Rica							40			1,211.95				
Cote d'Ivoire						143,746				1,235.90				
Croatia							2,845			200.00				
Cuba			500			57,896	92			570.00				
Cyprus							51,066							
Czech Republic								1		1.02				
Denmark	33						1,307	8		526.00	0.43			
Djibouti							518			21.70				
Dominica										343.00				
Dominican Republic	20						650			6,881.00				
Ecuador	1					201,542	954			4,990.50				
Egypt	40		12,650			71,291	471	4,237		40.00				
El Salvador			40				6,372			1,200.00				
Equatorial Guinea						5,266,516								
Estonia										231.00				
Ethiopia		0					6,657			234.75				
Fiji							429			140.00				
Finland	10						40,969	37		78.00	0.09			
France	20		426,322	0.18			133,181	13,011		700.86	63.67			
Gabon						802,172								
Gambia										40.00				
Georgia							124			3.06				
Germany	171		353,196	70.00			174,201	15,934		15,158.21	3,849.74			
Ghana			39				40			193.60				
Gibraltar							950							
Greece	73						72,021	102		60.00				
Guatemala	297					99,942	4,822			11,849.65				
Guinea										1,992.00				
Guyana										200.00				
Haiti										41.00				

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin⁽¹⁾ (continued)

4. 2006 (continued)

Country	Coal & Coal Products ⁽²⁾ (t)		Coke ⁽³⁾ (t)		Crude Oil ⁽⁴⁾ (t)		Petroleum Products ⁽⁵⁾ (t)		Petroleum Jelly;Waxes ⁽⁶⁾ (t)		Liquid Natural Gas ⁽⁷⁾ (t)		Electricity ⁽⁸⁾ (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Honduras							8		761.00					
Hong Kong	855,332	60					1,941,527	27,652	29,954.40	165.68			10,367,405.26	4,748,174
Hungary		0					0	0		23.49				
India	5,000,680	21	1,076,304				14,329	128,036	27,730.75	2.40				
Indonesia	42,064	5,166,916	19,792		1,041,548	2,123,108	976,619	904,667	5,417.25	18.05				
Iran	36	5	578,982			16,774,243	46,133	1,863,561	86.58	2,174.15				
Iraq	233					1,045,842		547,447						
Ireland	98							8		14.89				
Israel	1,271						14,658	15	5.07	1.12				
Italy	34		415,979				50,195	33,159	2,407.32	161.12				
Jamaica							6		5.10					
Japan	20,604,197	337	2,330,168	48.18	862,756		951,446	2,855,630	332.24	2,408.58				
Jordan	19		417					0						
Kazakhstan	79	724	261,727			2,682,845	3,434	205,326	3.78					
Kenya							49		1,287.30					
Korea, North	206,828	2,484,991	17,644		524,040		122,303		133.20				1,178.77	141,129
Korea, South	19,157,581		143,889		1,752,060		742,485	11,063,253	12,206.03	778.48				
Kuwait	30					2,809,168	50	107,219						
Kyrgyzstan		6,611	120				915	13,554	1.65					782
Laos		5,000					1,137	0	242.66				1,909.42	
Latvia							39		966.00					
Lebanon							900		39.00					
Liberia							90,002		280.00					
Libya						3,385,172								
Lithuania							452		0.05					
Luxembourg							23,839	0						
Macau	18						381,444		802.15				913,901.21	
Madagascar									1,548.40					
Malaysia	40,966	1	15,406		147,658	113,364	68,220	1,512,460	4,986.86	2,837.52				
Mali							5		2.68					
Malta	52						31,685		42.00					
Marshall Islands							32,644							
Mauritania						825,953								
Mauritius							11		22.98					
Mexico	0		24,853				20	54	66,831.23					
Mongolia	40	2,352,232	281		45,436		18,024		479.58				230.72	
Morocco	13,855		15,766						25.08					
Mozambique									288.00					
Myanmar	300		1,937				97,461		61,052.53		150		55,248.29	16,646
Nepal							1,931		123.00					
Netherlands	245,048		382,975	22.00	0		107,345	7,056	18,119.77	594.30				
New Caledonia	11													
New Zealand	218	113,313					9,689	123	2,276.00					
Nicaragua									2,840.00					
Niger			34											
Nigeria					451,949		120	49,541	1,683.56					
Norway	87		24,980		0	327,089	9,498	0	515.64	1.03				
Oman					13,183,282		0		0.10					
Pakistan	117,766		447,087				4,422		2,359.71					
Panama							1,642,840		882.20					
Papua New Guinea							3		22.00					
Paraguay									6.09					
Peru			6	0.01	1,024,122				8,527.28					
Philippines	1,035,513	0	3,303	0.01	37,741		185,675	125,119	11,813.48	0.01				
Poland	0						0	0	4,610.80	0.09				
Portugal							20	3,450	1,164.00	1.04				
Qatar					333,555		19,459							
Reunion							45							
Romania							1,399							
Russia	23	990,788	11,700		15,965,717		86,075	5,162,680	48.25				478,725	

(continued)

Table 7B.2. Energy Exports and Imports by Destination and Origin^[1] (continued)

4. 2006 (continued)

Country	Coal & Coal Products ^[2] (t)		Coke ^[3] (t)		Crude Oil ^[4] (t)		Petroleum Products ^[5] (t)		Petroleum Jelly;Waxes ^[6] (t)		Liquid Natural Gas ^[7] (t)		Electricity ^[8] (MWh)	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Saudi Arabia	1,984		30,199		23,871,515		1,245	841,649	63.06					
Senegal							53		242.50					
Sierra Leone							8		502.00					
Singapore	507		1,109		540,657		1,886,667	4,843,004	45,057.77	260.48				
Slovenia							19							
South Africa		231	300,616		312,562		59	91,456	18,960.55	3,333.59				
Spain	292,182		32,917				3,097	5,071	2,741.10	2,538.31				
Sri Lanka			758				4,218		1,314.84					
St. Vincent & the Grenadines							16,776							
Sudan					4,846,543		460	0	0.03					
Sweden	62						45,268	6,909	40.00					
Switzerland				40.01			2,389	317		0.40				
Syria			1,271		10				232.00					
Taiwan	13,258,700		141,441				18,284	931,154	2,735.45	2,888.82		11		
Tajikistan			60											
Tanzania	2,005		1,187				130		974.00					
Thailand	28,068		33,684	0.28	7,905	1,148,444	30,387	421,416	8,670.75	131.68				
Togo							1,250		273.00					
Trinidad & Tobago	12								161.00					
Tunisia								0	234.15					
Turkey	1,866,520	0	427,886	0.02			36,675	29,660	20.00	0.00				
Turkmenistan							1,143	15,602						
Tuvalu							3,608							
Ukraine	4		44,575				501	1						
United Arab Emirates	475		14,070		3,044,008		119,692	902,763						
United Kingdom	35,928		252,956	1.28	0	0	99,137	1,724	636.78	32.84				
United States	64,177	197	2,488,184	134.12	1,184,185		479,659	320,891	167,649.55	3,869.79		0		
Unknown Countries								22						
Uruguay									267.12					
Uzbekistan	7						894	84,930	9.01					
Vanuatu							6,462							
Venezuela					4,202,776			3,115,002	8,100.22					
Vietnam	42,030	20,079,896	68,746		873,475		1,117,320	2,911	28,701.56	37.39			930,954.19	
Yemen	0				4,543,167		2	89,789	115.20					
Yugoslavia	0								20.00					
Zimbabwe							1,536		113.60					
Total	63,297,364	38,244,010	14,572,423	382.02	6,337,217	145,180,329	12,377,042	36,392,776	632,701.86	35,325.88	150	687,543	12,270,828	5,388,707

[1] Customs statistics indicate proximate destination only, not final destination. Thus figures for fossil fuels may not reflect the actual balance of trade with some trading partners, especially Hong Kong, from where many Chinese goods are transshipped

[2] Coal and coal products denoted by customs category HS 2701; includes coal, briquettes, ovoids and similar solid fuels manufactured from coal.

[3] Coke as defined by HS 2704 (coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon).

[4] HS 2709 (petroleum oils and those obtained from bituminous minerals, crude).

[5] Petroleum as included in HS 2710 (petroleum oils and those obtained from bituminous minerals, other than crude).

[6] HS 2712 (petroleum jelly; paraffin wax, microcrystalline petroleum wax, slack wax, ozokerite, lignite wax, etc).

[7] HS 2711 (liquefied natural gas)

[8] HS 2716 (electrical energy).

Source: China Customs, 2007

Table 7B.3. Gross Energy Exports Earnings and Total Export Earnings (Billion Current US Dollars)

Year	Total Gross Export Earnings	Coal & Coke Subtotal	Oil & Oil Products Subtotal	Gross Energy Export Earnings ^[1]	Percentage of Total Gross Export Earnings ^[2]
1953	1.02			0.008	0.78%
1957	1.60			0.018	1.13%
1965	2.23			0.068	3.05%
1966	2.37			0.068	2.87%
1970	2.26			0.063	2.79%
1975	7.26			1.093	15.05%
1976	6.86			0.942	13.74%
1977	7.59			1.068	14.07%
1978	9.75			1.345	13.80%
1979	13.66		2.231	2.654	19.43%
1980	18.27		4.119	4.588	25.11%
1981	22.02		4.496	5.054	22.96%
1982	22.32	0.380	4.897	5.317	23.82%
1983	22.23	0.327	4.475	4.666	20.99%
1984	26.14	0.322	5.680	6.002	22.96%
1985	27.35	0.349	6.687	7.035	25.72%
1986	30.94	0.455	3.150	3.605	11.65%
1987	39.44	0.536	3.905	4.441	11.26%
1988	47.52	0.594	3.239	3.832	8.07%
1989	52.38	0.680	3.456	4.136	7.90%
1990	62.09	0.754	4.279	5.034	8.11%
1991	71.84	0.829	3.780	4.609	6.41%
1992	84.94	0.840	3.640	4.479	5.27%
1993	91.76	0.874	3.038	3.912	4.26%
1994	121.01	1.053	2.592	3.645	3.01%
1995	148.78	1.694	2.973	5.332	3.58%
1996	151.05	1.720	3.562	5.932	3.93%
1997	182.74	1.924	3.819	6.998	3.83%
1998	183.75	1.866	2.261	5.168	2.81%
1999	195.18	1.635	1.848	4.641	2.38%
2000	249.24	2.375	4.256	7.830	3.14%
2001	266.40	3.593	3.504	8.432	3.16%
2002	325.64	3.490	3.617	8.359	2.57%
2003	438.47	4.435	5.379	11.112	2.53%
2004	593.65	7.778	5.280	14.475	2.44%
2005	762.33	6.635	9.103	17.617	2.31%
2006	969.32	5.701	9.802	17.795	1.84%

[1] 1985-1991 figures include gas and electricity. 1982 and 1983 figures are not equal to the sum of coal and oil subtotals because figures for those years are from different sources; post-1995 data are based on the [more expansive] HS 27 trade category.

[2] Percentages for 1979-1985 may be in error because of different sources for total exports and energy exports in those years.

Source: EB, Almanac of China's Foreign Economic Relations and Trade, 1984-1990 (data from MOFERT); NBS, China Statistical Yearbook, various years.

Data are from MOFERT except the following, which are customs statistics: gross export earnings (1979 and later), coal exports (1985 and later), oil exports (1979 and later), and gross energy exports (1985 and later).

Figure 7B.2. Gross Energy Export Earnings, 1980-2006

Table 7B.4. Coal Exports and Imports ^[1]

Rank	Country	Exports (million tonnes)								
		1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Japan	13.47	12.75	16.22	26.51	27.99	31.27	28.92	23.18	20.60
2	Korea, South	8.05	13.42	21.12	28.94	25.39	29.72	24.51	21.22	19.16
3	Taiwan	5.29	5.51	9.08	15.98	14.25	17.12	19.86	16.23	13.26
4	India	0.76	0.81	1.92	3.41	2.33	2.35	3.08	3.86	5.00
5	Turkey	0.00	0.00	0.04	0.06	0.16	1.36	1.91	1.65	1.87
6	Philippines	0.85	0.59	1.80	3.81	2.88	2.91	2.93	2.03	1.04
7	Hong Kong	1.16	0.94	1.98	3.39	2.96	2.12	1.25	0.95	0.86
8	Spain	0.01	0.00	0.20	0.73	0.07	0.32	0.00	0.22	0.29
9	Netherlands	0.14	0.06	0.15	1.27	0.37	0.24	0.36	0.14	0.25
10	Korea, North	0.10	0.43	0.17	0.42	0.26	0.41	0.26	0.15	0.21
11	Brazil	0.01	0.20	0.58	1.95	2.55	2.39	0.55	0.28	0.19
12	Belgium	0.10	0.14	0.11	0.36	0.18	0.08	0.13	0.28	0.19
13	Pakistan	0.00	0.00	0.00	0.00	0.00	0.26	0.82	0.71	0.12
14	United States	0.02	0.01	0.01	0.08	0.04	0.11	0.13	0.08	0.06
15	Indonesia	0.06	0.16	0.01	0.02	0.01	0.04	0.04	0.09	0.04
16	Vietnam	0.00	0.00	0.00	0.02	0.06	0.04	0.13	0.15	0.04
17	Malaysia	0.25	0.17	0.24	0.37	0.39	0.11	0.07	0.05	0.04
18	United Kingdom	0.09	0.15	0.11	0.38	0.11	0.08	0.17	0.05	0.04
19	Thailand	0.03	0.16	0.07	0.14	0.26	0.07	0.17	0.00	0.03
20	Morocco	0.00	0.16	0.04	0.04	0.04	0.03	0.03	0.13	0.01
Other		1.91	1.75	1.22	2.28	3.57	2.90	1.28	0.28	0.01
Total		32.29	37.41	55.05	90.16	83.88	93.93	86.61	71.72	63.30

Rank	Country	Imports (million tonnes)								
		1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Vietnam	0.02	0.13	0.21	0.36	2.24	2.49	6.18	10.19	20.08
2	Australia	1.18	1.10	1.29	0.67	4.49	5.10	5.35	5.88	6.90
3	Indonesia	0.00	0.00	0.21	0.84	1.94	0.78	1.32	2.40	5.17
4	Korea, North	0.03	0.01	0.01	0.09	0.41	0.75	1.57	2.80	2.48
5	Mongolia	0.00	0.00	0.00	0.00	0.00	0.28	1.60	2.54	2.35
6	Russia	0.19	0.00	0.00	0.18	1.15	0.72	0.61	0.90	0.99
7	Canada	0.00	0.00	0.00	0.00	0.00	0.38	1.82	1.23	0.15
8	New Zealand	0.10	0.13	0.23	0.23	0.16	0.20	0.12	0.17	0.11
9	Kyrgyzstan	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01
10	Laos	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Other		0.06	0.30	0.17	0.12	0.42	0.03	0.03	0.01	0.00
Total		1.58	1.67	2.12	2.49	10.81	10.76	18.60	26.13	38.24

[1] Coal as delineated by 2002 HS category 2701; includes anthracite, coking coal and other bituminous coal, lignite, briquettes, and coal slurry.

Figure 7.B.3. Top Coal Trade Countries, 2006

1. Imports by Source, 2006

2. Exports by Destination, 2006

Table 7B.5. Crude Oil Imports and Exports [1]

1. Crude Oil Exports by Destination (t)

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Korea (ROK)	3,581,023	948,384	683,031	366,412	684,487	1,464,813	1,445,685	2,050,792	1,752,060
United States	2,209,679	358,104	1,749,465	649,445	831,523	678,390	581,442	1,213,433	1,184,185
Indonesia	427,526	241,506	980,727	1,268,080	1,043,922	1,339,631	1,382,838	1,623,134	1,041,548
Japan	7,949,193	4,980,242	4,963,617	4,179,926	3,227,181	3,555,455	493,231	954,795	862,756
Singapore	492,805	58,510	352,788	164,004	233,545	163,239	59,347	704,439	540,657
Korea (DPRK)	503,931	317,241	389,236	579,278	472,167	573,558	531,785	522,844	524,040
Australia	306,487	262,626	224,314	145,507	204,281	221,531	444,232	350,059	276,407
Malaysia	0	0	0	68,163	445,846	136,696	498,268	588,707	147,658
Thailand	130,068	0	662,066	68,558	0	0	0	58,666	7,905
Norway	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0
Taiwan	0	0	0	0	1	0	0	0	0
Nigeria	0	0	117,583	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	0
Russia	0	0	0	0	0	0	0	0	0
Venezuela	0	0	0	0	0	0	0	0	0
Canada	0	0	0	0	0	10	0	0	0
Oman	0	0	65,176	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	54,740	0	0
Hong Kong	0	0	0	0	0	0	3	0	0
India	0	0	249,773	61,232	65,111	0	0	0	0
Israel									
World Total	15,600,712	7,166,613	10,437,777	7,550,605	7,208,063	8,133,323	5,491,571	8,066,870	6,337,217

[1] Delineated by 2002 HS category 2709; crude oil from petroleum and bituminous minerals.

Source: China Customs Bureau, various years.

Table 7B.5. Crude Oil Imports and Exports (continued)

2. Crude Oil Imports by Source (t)

	1999	2000	2001	2002	2003	2004	2005	2006
Saudi Arabia	2,496,968	5,730,211	8,778,376	11,390,426	15,176,165	17,244,338	22,178,924	23,871,515
Angola	2,876,005	8,636,634	3,798,883	5,705,064	10,101,511	16,208,239	17,462,801	23,452,009
Iran	3,949,291	7,000,465	10,847,009	10,629,986	12,388,890	13,237,386	14,272,827	16,774,243
Russia	572,276	1,476,738	1,765,975	3,029,577	5,254,788	10,776,560	12,775,919	15,965,717
Oman	5,020,825	15,660,840	8,140,355	8,045,910	9,277,391	16,347,797	10,834,575	13,183,282
Congo	384,708	1,454,357	641,613	1,047,250	3,389,260	4,773,279	5,534,806	5,419,044
Equatorial Guinea	812,657	1,223,384	2,146,416	1,780,213	1,460,162	3,484,773	3,838,887	5,266,516
Sudan	266,126	3,313,591	4,973,387	6,425,621	6,258,411	5,770,476	6,620,821	4,846,543
Yemen	4,132,183	3,612,423	2,286,946	2,261,717	6,996,776	4,912,248	6,978,485	4,543,167
Venezuela			55,569	0	443,762	334,103	1,927,878	4,202,776
Libya	132,592	129,973	250,366	0	128,882	1,338,451	2,259,237	3,385,172
United Arab Emirates		430,474	649,766	0	863,523	1,343,865	2,567,745	3,044,008
Kuwait	330,443	433,428	1,459,823	1,069,696	907,244	1,253,980	1,645,741	2,809,168
Kazakhstan	490,807	724,177	649,575	1,003,591	1,198,214	1,285,605	1,290,001	2,682,845
Brazil		227,806		0	123,660	1,576,903	1,343,158	2,222,755
Indonesia	3,952,948	4,575,188	2,645,061	3,237,510	3,333,700	3,428,637	4,085,189	2,123,108
Argentina			136,991	0	131,306	713,565	912,288	1,703,741
Thailand		285,144	226,760	739,508	1,610,170	914,745	1,192,282	1,148,444
Iraq	974,155	3,183,182	372,056	536,836	0	1,306,511	1,170,434	1,045,842
Peru				0	0	0	0	1,024,122
Vietnam	1,511,950	3,158,472	3,362,440	3,542,823	3,505,938	5,348,199	3,195,540	873,475
Mauritania				0	0	0	0	825,953
Gabon	651,774	457,252	146,970	0	277,632	548,264	0	802,172
Chad				0	0	830,772	547,516	553,727
Nigeria	1,369,168	1,252,519	772,502	487,860	122,023	1,488,953	1,310,236	451,949
Brunei Darussalam		275,486	753,856	1,295,834	1,358,537	882,833	501,517	418,149
Australia	901,045	1,108,399	709,121	1,156,445	1,779,255	1,510,249	232,384	402,130
Qatar		1,598,902	1,325,553	457,609	675,820	142,395	343,218	333,555
Norway	2,009,860	1,477,844	915,730	2,110,553	931,817	2,008,899	517,666	327,089
South Africa	365,730			0	0	0	0	312,562
Algeria				0	128,476	676,163	816,379	256,724
Ecuador				0	139,130	282,619	92,966	201,542
Cote d'Ivoire				0	0	0	0	143,746
Malaysia	247,425	744,317	899,451	1,648,743	2,031,017	1,691,473	347,856	113,364
Guatemala				0	0	0	77,047	99,942
Colombia				0	0	0	0	94,128
Egypt	112,589	120,062		0	75,226	0	79,776	71,291
Cuba				0	0	0	0	57,896
Mongolia	10,531	9,632	9,894	16,950	20,501	24,267	21,699	45,436
Canada				0	55,542	78,664	1	43,729
Philippines				0	37,729	257,610	107,386	37,741
Syria				0	79,262	0	0	10
Netherlands				0	0	0	0	0
United Kingdom	2,196,098	1,041,527	502,032	1,224,949	201,621	157,404	0	0
Germany		0	141,602	2	0	0	0	0
France				0	0	0	0	0
Italy				0	0	0	0	0
Georgia				0	0	80,575	0	0
Azerbaijan				0	139,194	129,572	0	0
Kenya	24,172			0	0	0	0	0
Congo, Dem. Rep.				0	0	0	0	0
Belgium				67	0	0	0	0
Panama				0	106,663	0	0	0
United States	360,351	105,548		9	3	110,504	2	0
Papua New Guinea	149,205	390,599	75,987	157,916	80,625	78,141	0	0
Other	311,805	426,744	815,286	405,045	336,442	236,452	0	0
World Total	36,613,688	70,265,315	60,255,351	69,407,709	91,126,265	122,815,469	127,083,186	145,180,329

Source: China Customs Bureau, various years.

Figure 7B.4. Top Crude Oil Trade Partners, 2006

1. Crude Oil Exports by Destination, 2006

2. Crude Oil Imports by Source, 2006

Table 7B.6. Oil Products^[1] Imports and Exports

1. Oil Products Exports by Destination (t)

Country of Destination	1999	2000	2001	2002	2003	2004	2005	2006
Hong Kong	776,244	1,048,335	869,063	935,124	995,547	1,111,015	1,339,951	1,941,527
Singapore	2,303,595	2,106,798	2,287,940	2,690,586	2,641,785	1,760,182	2,066,698	1,886,667
Panama	119,264	213,366	246,425	410,402	465,841	1,173,217	1,471,873	1,642,840
Vietnam	715,513	833,784	1,065,004	1,788,062	2,738,143	1,823,472	1,893,191	1,117,320
Indonesia	28,572	263,172	427,995	440,315	1,201,972	1,194,497	1,978,221	976,619
Japan	331,278	910,007	876,532	934,235	1,307,632	1,186,082	1,234,277	951,446
Korea, South	896,079	1,035,264	1,327,116	1,167,467	667,801	439,996	791,424	742,485
United States	160,634	479,146	419,749	335,166	609,954	319,522	520,531	479,659
Macau	50,314	96,879	147,425	130,864	168,774	232,018	252,191	381,444
Philippines	8,107	48,659	230,784	402,190	798,641	220,658	189,789	185,675
Germany	48,458	39,125	34,389	39,814	95,328	141,655	166,905	174,201
France	29,982	33,137	22,956	25,900	64,585	97,389	120,200	133,181
Korea, North	122,966	111,501	109,311	82,472	124,727	127,969	145,506	122,303
United Arab Emirates	-	40,781	28,951	203,339	77,458	117,499	215,671	119,692
Netherlands	16,861	82,127	17,193	18,334	37,225	74,929	102,171	107,345
Australia	36,800	222,832	219,212	305,479	612,410	198,610	129,840	101,648
United Kingdom	14,076	13,796	14,179	18,147	27,026	54,020	84,298	99,137
Myanmar	23,934	22,755	31,239	53,520	72,690	76,936	92,299	97,461
Liberia	15,627	37,999	33,519	34,226	49,217	59,486	62,355	90,002
Russia	20,546	23,287	28,980	25,558	40,651	51,516	89,412	86,075
Canada	19,147	20,123	17,075	19,997	31,161	45,891	62,500	79,509
Greece	5,126	7,942	8,792	11,188	18,275	54,282	50,045	72,021
Malaysia	7,922	9,380	16,318	11,483	35,538	75,090	55,727	68,220
Cyprus	30,505	40,938	64,967	77,132	30,301	47,707	76,656	51,066
Italy	11,063	14,247	40,986	1,382	11,685	15,042	37,038	50,195
Iran	280,053	116,705	98,212	89,660	228,297	77,990	91,488	46,133
Sweden	11,231	15,733	15,010	19,610	22,186	29,856	46,795	45,268
Finland	6,052	9,671	8,973	12,396	15,105	34,165	38,502	40,969
Turkey	5,276	15,114	13,223	16,222	15,495	31,730	35,426	36,675
Bahamas	5,727	6,152	16,405	27,273	141,067	26,515	41,428	35,774
Austria	9,268	10,842	7,730	10,458	8,244	17,422	29,391	34,794
Antigua & Barbuda	639	1,474	3,553	8,431	6,560	18,704	11,654	34,352
Marshall Islands	239	478	63	1,468	11,937	20,529	17,624	32,644
Malta	33,851	86,830	129,998	19,189	39,319	40,060	36,460	31,685
Thailand	66,278	59,432	9,711	62,686	186,094	178,015	22,720	30,387
Luxembourg	263	1,245	60	-	1,733	2,839	11,896	23,839
Qatar	-	-	-	101	-	5,716	17,783	19,459
Taiwan	74,185	22,652	7,931	1,853	3,103	5,248	11,676	18,284
Mongolia	13,002	25,112	28,788	30,452	18,622	34,703	38,083	18,024
St. Vincent & the Grenadi	21,179	18,321	19,108	27,632	23,973	26,781	19,064	16,776
Israel	2,327	2,818	4,010	3,052	5,438	10,552	14,786	14,658
India	44,178	13,331	4,167	4,336	4,793	13,516	25,340	14,329
Cambodia	2,537	1,670	3,280	4,431	3,287	5,657	10,807	10,449
New Zealand	32	3	38	30,424	424	30,260	5,243	9,689
Norway	2,356	2,527	1,926	3,798	3,446	6,407	7,817	9,498
Belize	11,049	5,745	8,882	5,823	7,430	14,964	11,435	7,083
Bermuda	-	389	15	-	570	5,946	7,656	6,723
Ethiopia	211	157	103	425	1,491	2,473	4,560	6,657
Vanuatu	1,007	499	300	973	1,376	197	2,800	6,462
El Salvador	7,073	8,400	-	-	70	-	40	6,372
Other^[2]	60,819	91,105	271,753	165,072	172,973	112,689	219,574	62,318
Total	6,451,445	8,271,781	9,239,338	10,708,148	13,847,397	11,451,612	14,008,819	12,377,042

[1] HS Code 2710; includes gasoline, naphtha, other light distillates, kerosene and other middle distillates, diesel, fuel oil, lube oil and grease, and other heavy distillates.

[2] Countries importing less than 6,000 tons per year in 2006.

Source: China Customs Bureau, various years.

Table 7B.6. Oil Products^[1] Imports and Exports

2. Oil Products Imports by Source (t)

Country of Origin	1999	2000	2001	2002	2003	2004	2005	2006
Korea, South	9,480,148	9,357,164	10,790,204	5,887,431	7,450,683	10,122,899	8,991,297	11,063,253
Russia	2,068,987	2,510,540	2,910,748	4,017,168	4,995,795	5,548,092	5,128,412	5,162,680
Singapore	4,936,140	3,049,002	3,341,036	4,636,793	6,561,200	9,302,747	6,212,072	4,843,004
Venezuela	-	237,770	286,212	50,012	1,238,227	848,331	735,213	3,115,002
Japan	1,200,995	574,912	910,333	1,307,275	1,286,476	2,000,833	3,045,458	2,855,630
Iran	93,090	148,960	82,878	496,308	1,346,499	1,629,273	1,671,629	1,863,561
Malaysia	430,723	179,572	796,787	1,110,416	1,322,634	2,374,275	730,850	1,512,460
Taiwan	196,394	142,029	323,079	368,029	575,654	1,492,349	804,556	931,154
Indonesia	205,679	27,745	251,116	390,942	1,569,204	1,004,295	862,056	904,667
United Arab Emirates	57,824	217,607	152,614	315,164	279,853	321,820	270,739	902,763
Saudi Arabia	199,847	317,486	171,192	174,000	58,756	253,243	941,429	841,649
Iraq	-	0	-	-	-	33,192	81,227	547,447
Thailand	40,259	362,012	245,290	215,850	328,669	473,870	37,145	421,416
United States	978,444	69,145	238,454	296,157	245,753	487,353	352,571	320,891
Kazakhstan	-	-	3,979	42,693	224,485	253,191	300,924	205,326
India	1	61,477	160,867	88,923	72,643	102,437	92,781	128,036
Philippines	226,966	267,668	322,812	572,977	189,956	39,542	66,281	125,119
Kuwait	1,200	39,878	-	60,089	62,852	-	96,921	107,219
South Africa	506	20,404	30,419	168	531	6,466	146,192	91,456
Yemen	14,252	-	-	-	123,345	141,025	111,373	89,789
Uzbekistan	-	1,487	8,756	5,316	70,948	177,069	109,266	84,930
Nigeria	-	-	-	-	-	-	-	49,541
Italy	392	550	320	7,163	1,672	1,284	6,529	33,159
Colombia	-	-	-	-	-	265,714	-	33,108
Turkey	11	60	3	6	28	26,084	80	29,660
Hong Kong	43,782	30,734	37,913	30,580	93,323	94,719	63,546	27,652
Germany	7,002	9,224	10,167	10,894	12,770	15,311	13,440	15,934
Turkmenistan	-	-	-	-	-	-	-	15,602
Kyrgyzstan	-	-	-	-	-	-	3,146	13,554
France	17,633	34,799	5,882	9,561	10,260	16,417	19,010	13,011
Belgium	83,877	746	86,187	4,218	5,791	6,423	6,101	7,856
Netherlands	43,977	1,540	1,234	7,733	2,534	264,459	33,155	7,056
Sweden	1,902	75,760	7,014	8,218	8,141	8,835	5,212	6,909
Spain	586	608	970	1,625	8,977	6,424	7,905	5,071
Egypt	-	32,053	27,584	24,125	14	5,955	0	4,237
Portugal	0	-	-	1	1	1	1	3,450
Canada	344	794	494	924	1,313	2,657	2,597	2,990
Vietnam	243	10,802	10,834	5,078	2,264	3,520	2,037	2,911
United Kingdom	103,118	142,559	1,073	802	1,578	2,034	1,082	1,724
Australia	11,849	20,486	68,155	28,238	5,749	1,179	2,209	804
Switzerland	3	535	59	40	129	137	206	317
China	2,849	1,308	790	1,106	1,383	490	254	218
Brazil	19	0	5	5	11	18	17	148
New Zealand	0	1	29,999	0	7	160	7,281	123
Greece	-	72	43	43	93	146	73	102
Mexico	1	4	0	1	5	10	25	54
Austria	3	1	15	10	6	11	22	41
Finland	0	4	1	1	0	2	6	37
Unknown Countries	-	-	-	-	15,355	79,574	270	22
Israel	5	8	6	1	0	0	1	15
Other^[2]	368,192	99,395	133,512	175,879	64,268	454,058	504,798	19
Total	20,817,244	18,046,902	21,449,038	20,351,962	28,239,836	37,867,922	31,467,396	36,392,776

[1] HS Code 2710; includes gasoline, naphtha, other light distillates, kerosene and other middle distillates, diesel, fuel oil, lube oil and grease, and other heavy distillates.

[2] Countries exporting less than 15 tons per year in 2006.

Source: China Customs Bureau, various years.

Figure 7B.5. Oil Product Imports and Exports, 2006

1. Oil Products Exports by Destination, 2006

2. Oil Products Imports by Source, 2006

Table 7B.7. Exports of Energy-Intensive Products

Year	Paraffin	Petroleum Coke	Cement	Flat Glass Million	Paper and Paperboard	Porcelain and Pottery Ware for Household Use	Pig Iron	Ferro-silicon	Crude Steel
	(kt)	(kt)	(Mt)	(million m ²)	(kt)	(kt)	(Mt)	(Mt)	(Mt)
1981	69	167	0.82	3.72	215				0.36
1982	89	139	0.70	2.73	220				0.22
1983	111	133	0.38	2.14	263				0.01
1984	84	177	0.17	2.31	212				
1985	102	175	0.14	2.25	185				0.01
1986	101	141	0.19	3.62	258				<0.001
1987	129	63	0.17	7.27	321				<0.001
1988	137	54	0.15	13.71	260				0.01
1989	134	119	0.44	33.54	220				0.02
1990	185	163	6.83	32.86	248				0.51
1991	181	183	10.74	41.94	233				0.82
1992	270	240	6.45	35.21	180				0.34
1993	260	439	2.45	25.36	170				0.11
1994	270	347	4.52	30.17	240				0.66
1995	280	460	8.19	56.45	490				4.43
1996	290	510	11.80	41.31	170				2.71
1997	360	90	11.68	39.84	230	709	5.54	0.21	3.64
1998	530	180	8.20	36.45	250	731	2.45	0.27	1.64
1999	450	240	6.36	44.18	210	898	1.62	0.35	1.73
2000	520	314	6.05	55.92	650	1,097	3.33	0.49	4.34
2001	540	480	6.21	61.23	680	1,119	0.68	0.49	2.71
2002	620		5.18	113.59	740	1,365	0.40	0.54	1.33
2003	620		5.33	124.27	1,140	1,614	0.71	0.84	1.47
2004	640		7.04	144.64	1,010	1,870	1.29	0.93	6.06
2005	730		22.16	199.25	1,670	2,009	2.23	0.94	7.07
2006	600		36.13	264.33	3,050	2,112	0.87	1.33	9.04

Year	Rolled Steel ^[1]	Cast Iron Pipe	Unwrought Copper and Alloys	Rolled Copper	Unwrought Aluminum and Alloys	Rolled Aluminum	Zinc and Alloys	Tin and Alloys	Motor Vehicles and Chassis
	(Mt)	(kt)	(kt)	(kt)	(kt)	(kt)	(kt)	(kt)	(unit)
1981	0.61	41.16		8.12		11.59	17.47	5.614	1,800
1982	0.90	34.35		6.60		9.72	10.18	3.068	522
1983	0.53	31.34		9.49		10.55	2.05	3.64	50
1984	0.22	36.55		7.72		5.95	1.45	2.64	285
1985	0.16	21.99		4.21		5.69	2.37	7.25	95
1986	0.23	26.46		9.17		6.14	56.77	7.42	
1987	0.38	27.81		22.30		20.16	95.34	15.89	
1988	0.82	37.93		44.25		28.96	13.84	10.72	
1989	0.88	42.36		16.48		6.30	20.11	9.87	
1990	1.99	31.80		25.23		17.76	16.71	10.14	
1991	2.14	29.53		33.66		27.30	6.28	15.69	
1992	1.91	35.68		42.59		32.37	84.86	30.27	
1993	0.98	35.15		43.30		30.28	205.57	40.70	
1994	1.51	76.06		60.61		39.81	278.00	44.38	
1995	5.67	50.33		87.34		65.44	191.54	43.31	
1996	4.22	76.08		80.71		59.12	226.78	36.13	
1997	4.62	85.45	84.27	99.50	249.42	100.33	556.31	41.09	14,829
1998	3.59	95.43	122.92	93.14	326.90	109.35	382.89	53.57	11,531
1999	3.68	97.03	103.04	101.97	206.60	94.80	527.12	64.58	7,999
2000	6.21	226.02	118.74	144.48	209.11	130.05	593.34	77.73	22,779
2001	4.74	234.55	54.13	123.79	408.83	135.63	562.02	57.25	22,776
2002	5.45	264.98	81.33	171.71	787.85	188.74	495.99	42.58	43,490
2003	6.96		67.08	232.88	1,249.25	273.87	484.23	41.22	133,372
2004	14.23		126.28	390.02	1,683.37	430.99	263.15	38.92	401,354
2005	20.52		144.67	463.57	1,318.60	711.48	146.85	27.01	1,080,886
2006	43.01		246.76	559.12	1,212.16	1,240.16	341.47	21.53	1,642,396

[1] Includes iron and steel wire.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years (customs statistics); NBS, Yearbook of China's Industrial Economy, various years; EB, Yearbook of China's Nonferrous Metals Industry, various years; EB, Yearbook of China's Iron and Steel Industry, various years; Sinopec Yearbook, 1991; China Customs Bureau, 2000; EB, Almanac of China's Foreign Economic Relations and Trade, various years.

Table 7B.8. Imports of Energy-Intensive Products

Year	Rolled Steel ^[1] (Mt)	Rolled Copper (kt)	Copper and Alloys (kt)	Rolled Aluminum (kt)	Aluminum and Alloys (kt)	Zinc and Alloys (kt)	Caustic Soda (kt)	Soda Ash (kt)	Chemical Fertilizers		Primary Polyethylene (Mt)
									urea (Mt)	total (Mt)	
1981	3.54		53.69		57.77	12.41	51.67	203.85	2.60	5.55	0.12
1982	3.77		110.94		169.57	108.08	66.55	247.15	3.26	6.06	0.42
1983	9.66		485.86		283.76	228.71	247.02	608.89	4.25	8.00	0.43
1984	12.32		254.05		252.74	230.18	227.41	851.83	4.40	9.23	0.70
1985	20.10		355.65		487.86	268.63	224.52	1,056.78	3.82	7.61	0.74
1986	18.47		171.11		266.24	116.95	283.17	1,221.00	3.01	5.10	0.68
1987	12.45		75.48		184.13	68.15	304.93	853.37	5.56	10.90	0.67
1988	9.15		84.37		75.38	61.99	231.89	823.14	8.49	14.71	1.02
1989	9.52		70.08		175.51	19.20	187.92	969.07	7.94	13.93	0.53
1990	4.23		40.25		71.77	4.14	40.54	210.52	8.13	16.27	0.36
1991	3.58		113.97		43.90	11.71	3.63	54.22	7.01	18.18	0.65
1992	7.09		379.00		229.63	42.15	10.24	59.41	7.48	18.59	1.42
1993	30.22		363.54		165.69	40.10	5.82	60.77	3.61	10.21	1.04
1994	22.80		121.41		168.85	48.62	21.44	101.27	3.13	12.66	1.34
1995	14.09		187.50		387.93	66.70	8.77	75.32	6.96	19.91	1.83
1996	16.00		290.95		366.73	69.51	15.95	62.73	6.01	18.57	2.19
1997	13.22	484.55	210.87	312.10	288.89	72.00	31.40	110.73	3.42	16.49	2.28
1998	12.42	546.69	268.40	341.30	306.99	87.49	26.40	84.24	0.12	13.87	2.46
1999	14.86	631.94	547.70	426.95	534.00	107.44	24.12	35.71	0.07	13.35	2.60
2000	15.96	740.98	812.13	457.03	914.10	129.97	46.46	134.95	0.00	11.89	2.97
2001	17.22	740.62	954.17	404.12	529.42	141.16	27.36	68.67	0.00	10.92	4.11
2002	24.49	917.73	#####	475.66	581.76	211.72	114.83	293.69	0.79	16.82	4.56
2003	37.17	1,055.77	#####	531.48	880.74	310.22	104.69	301.28		12.13	3.59
2004	29.30	1,190.00	#####	610.00	1,033.42			200.00		12.40	3.66
2005	25.82	1,120.00	#####	650.00	636.95			70.00	0.07	13.97	3.56
2006	18.51	1,090.00	970.00	690.00	510.00			140.00	0.04	11.29	4.00

Year	Primary Polypropylene (Mt)	Primary Polystyrene (Mt)	Primary Polyvinyl Chloride (Mt)	Synthetic Fiber, Staple (kt)	Synthetic Fiber, Continuous (kt)	Paper Pulp (kt)	Paper and Paperboard (Mt)	Motor Vehicles and Chassis ^[2] (unit)	Sedans (units)	Trucks (units)
1981	0.10	0.06	0.01	497	200	682	0.768	41,587	1,401	20,770
1982	0.20	0.04	0.02	239	98	475	0.459	16,077	1,101	7,730
1983	0.20	0.02	0.04	134	50	731	0.518	25,156	5,806	8,445
1984	0.27	0.06	0.03	270	174	640	0.607	148,743	21,651	28,047
1985	0.41	0.13	0.06	490	300	547	0.926	353,493	105,775	111,481
1986	0.35	0.15	0.09	301	200	523		150,052	48,276	64,570
1987	0.29	0.08	0.08	241	86	683		90,239	30,536	19,216
1988	0.56	0.23	0.10	451	112	795		98,982	48,276	64,570
1989	0.26	0.19	0.08	392	128	476		85,898	30,536	19,216
1990	0.22	0.14	0.08	376	116	342		62,686	34,063	15,392
1991	0.56	0.27	0.14	502	118	1,291		98,454	54,409	18,578
1992	0.62	0.65	0.33	520	264	600		209,993	27,558	41,521
1993	0.58	0.74	0.42	520	364	520		310,096	71,132	72,564
1994	0.81	0.97	0.49	680	533	810		281,421	34,638	67,629
1995	1.07	1.07	0.58	760	611	820	3.020	158,115	23,802	11,728
1996	1.13	1.29	0.86	970	677	1,470	4.490	75,362	57,942	5,916
1997	1.25	1.59	1.17	1,040	746	1,540	5.520	48,441	31,944	6,855
1998	1.54	1.53	1.57	940	714	2,200	5.760	39,711	18,046	4,373
1999	1.47	1.74	1.80	830	601	3,100	6.500	34,906	19,952	2,682
2000	1.64	1.75	1.92	1,000	747	3,350	5.950	42,371	21,614	3,085
2001	2.09	1.72	2.51	920	664	4,900	5.570	71,999	46,629	3,138
2002	2.44	3.48	2.25	1,040		5,260	6.330	127,393	70,329	6,692
2003	2.73	3.59	2.29	1,060		6,030	6.360	172,339	103,017	9,769
2004	2.91	3.80	2.11	990		7,320	6.110	175,914	116,085	7,989
2005	3.02	3.67	1.66	840		7,590	5.210	163,020	76,542	2,928
2006	2.94	3.62	1.45	620		7,960	4.360	229,405	111,780	5,450

[1] Includes iron and steel wire.

[2] Total includes other vehicles besides cars and trucks.

Source: NBS, China Energy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years; China Custom's Bureau, various years.

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Table 8B.1. Carbon Dioxide Emissions by Source, 1950-2005

1. Million Tonnes of Carbon

Year	Fossil Fuels				Cement	Gas Flaring	Total Emissions	Per Capita Emissions (t C)
	Solid	Liquid	Gas	Subtotal				
1950	21.2	0.2	0.0	21.5	0.1	0.0	21.6	0.04
1951	27.3	0.3	0.0	27.8	0.2	0.0	27.9	0.05
1952	34.2	0.4	0.0	35.0	0.4	0.0	35.4	0.06
1953	35.6	0.5	0.0	36.6	0.5	0.0	37.1	0.06
1954	42.5	0.9	0.0	44.0	0.6	0.0	44.6	0.07
1955	50.0	1.5	0.0	52.1	0.6	0.0	52.7	0.09
1956	56.0	2.2	0.0	59.1	0.9	0.0	59.9	0.10
1957	66.6	2.5	0.0	70.0	0.9	0.0	70.9	0.11
1958	138.7	3.4	0.1	143.4	1.3	0.0	144.7	0.23
1959	189.8	5.2	0.2	196.9	1.7	0.0	198.5	0.31
1960	204.3	6.3	0.5	212.9	1.8	0.0	214.8	0.33
1961	142.6	6.1	0.8	150.6	1.1	0.0	151.7	0.23
1962	112.4	5.9	0.6	120.1	1.1	0.0	121.2	0.18
1963	110.9	6.4	0.5	119.1	1.4	0.0	120.5	0.17
1964	109.6	7.6	0.6	119.2	1.4	0.0	120.6	0.17
1965	118.2	9.6	0.6	129.8	1.5	0.0	131.3	0.18
1966	128.2	12.2	0.7	142.6	1.5	0.0	144.1	0.19
1967	104.7	11.6	0.8	118.2	1.1	0.0	119.3	0.16
1968	112.7	13.3	0.7	127.9	1.2	0.0	129.1	0.17
1969	136.8	18.2	1.0	157.4	1.4	0.0	158.8	0.20
1970	181.8	24.9	1.5	209.5	1.4	0.0	210.9	0.26
1971	201.0	31.8	2.0	238.2	3.1	0.2	241.5	0.28
1972	210.4	36.8	2.5	253.1	3.1	0.3	256.5	0.30
1973	213.9	42.4	3.1	263.2	3.4	0.3	267.0	0.30
1974	211.9	48.9	3.9	268.5	3.4	0.4	272.4	0.30
1975	247.5	54.7	4.6	311.5	4.1	0.5	316.1	0.34
1976	248.5	64.3	5.3	325.3	6.7	0.5	332.6	0.35
1977	279.4	69.4	6.3	363.2	7.6	0.6	371.4	0.39
1978	313.9	73.4	7.2	404.1	8.9	0.7	413.7	0.42
1979	322.0	72.3	7.6	412.8	10.1	0.8	423.7	0.43
1980	313.3	70.7	7.5	403.1	10.9	0.8	414.8	0.41
1981	314.1	66.3	6.7	399.3	11.4	0.7	411.4	0.40
1982	341.1	66.8	6.3	422.6	12.8	0.7	441.1	0.42
1983	360.8	68.4	6.4	451.1	14.7	0.7	466.5	0.44
1984	396.3	70.0	6.6	490.2	16.5	0.9	507.6	0.47
1985	432.0	73.5	6.8	531.7	19.4	0.0	551.1	0.51
1986	451.6	78.4	7.2	559.2	22.0	0.0	581.2	0.52
1987	481.8	83.5	7.3	596.9	24.4	0.0	621.4	0.55
1988	514.9	89.3	7.5	640.1	28.5	0.0	668.6	0.58
1989	522.0	93.1	7.9	651.1	28.1	0.0	679.2	0.58
1990	527.0	91.3	8.0	654.8	28.6	0.0	683.4	0.57
1991	546.1	98.8	8.4	687.7	34.4	0.0	722.0	0.59
1992	563.4	107.9	8.3	721.4	41.9	0.0	763.4	0.61
1993	593.5	107.3	9.8	760.6	50.0	0.0	810.6	0.64
1994	633.8	105.0	11.3	807.5	57.3	0.0	864.7	0.67
1995	680.6	115.9	11.6	872.8	64.7	0.0	937.6	0.72
1996	707.7	125.0	12.1	911.6	66.8	0.0	978.4	0.74
1997	680.9	135.0	12.1	897.6	69.6	0.0	967.2	0.72
1998	626.8	134.6	13.8	848.1	72.9	0.0	921.0	0.68
1999	649.3	146.4	14.9	888.5	77.9	0.0	966.4	0.70
2000	654.3	159.1	16.3	911.0	81.2	0.0	992.1	0.72
2001	663.3	161.9	18.3	933.4	89.9	0.0	1,023.3	0.73
2002	700.9	170.3	19.9	989.7	98.6	0.0	1,088.3	0.77
2003	839.0	186.9	21.9	1,165.0	117.2	0.0	1,282.2	0.90
2004	991.0	232.4	19.5	1,374.8	131.9	0.0	1,506.7	1.06
2005	1,115.7	233.2	24.0	1,514.1	141.2	0.0	1,655.3	1.16

Source: Carbon Dioxide Information Analysis Center, 2008.

Table 8B.1. Carbon Dioxide Emissions by Source, 1950-2005 (continued)

2. Shares

Year	Fossil Fuels				Cement	Gas Flaring	Total Emissions
	Solid	Liquid	Gas	Subtotal			
1950	98.2%	0.8%	0.0%	99.5%	0.5%	0.0%	100%
1951	97.8%	0.9%	0.0%	99.4%	0.6%	0.0%	100%
1952	96.8%	1.0%	0.0%	98.9%	1.1%	0.0%	100%
1953	95.7%	1.4%	0.0%	98.6%	1.4%	0.0%	100%
1954	95.1%	2.0%	0.0%	98.6%	1.4%	0.0%	100%
1955	94.9%	2.8%	0.0%	98.8%	1.2%	0.0%	100%
1956	93.4%	3.7%	0.0%	98.5%	1.5%	0.0%	100%
1957	93.9%	3.5%	0.1%	98.7%	1.3%	0.0%	100%
1958	95.9%	2.3%	0.0%	99.1%	0.9%	0.0%	100%
1959	95.6%	2.6%	0.1%	99.2%	0.8%	0.0%	100%
1960	95.1%	2.9%	0.3%	99.1%	0.9%	0.0%	100%
1961	94.0%	4.0%	0.5%	99.3%	0.7%	0.0%	100%
1962	92.8%	4.9%	0.5%	99.1%	0.9%	0.0%	100%
1963	92.0%	5.3%	0.4%	98.9%	1.1%	0.0%	100%
1964	90.9%	6.3%	0.5%	98.8%	1.2%	0.0%	100%
1965	90.0%	7.3%	0.4%	98.9%	1.1%	0.0%	100%
1966	89.0%	8.4%	0.5%	99.0%	1.0%	0.0%	100%
1967	87.8%	9.7%	0.6%	99.1%	0.9%	0.0%	100%
1968	87.3%	10.3%	0.6%	99.1%	0.9%	0.0%	100%
1969	86.2%	11.5%	0.6%	99.1%	0.9%	0.0%	100%
1970	86.2%	11.8%	0.7%	99.4%	0.6%	0.0%	100%
1971	83.2%	13.2%	0.8%	98.6%	1.3%	0.1%	100%
1972	82.0%	14.3%	1.0%	98.7%	1.2%	0.1%	100%
1973	80.1%	15.9%	1.2%	98.6%	1.3%	0.1%	100%
1974	77.8%	17.9%	1.4%	98.6%	1.2%	0.2%	100%
1975	78.3%	17.3%	1.5%	98.5%	1.3%	0.2%	100%
1976	74.7%	19.3%	1.6%	97.8%	2.0%	0.2%	100%
1977	75.2%	18.7%	1.7%	97.8%	2.0%	0.2%	100%
1978	75.9%	17.7%	1.7%	97.7%	2.1%	0.2%	100%
1979	76.0%	17.1%	1.8%	97.4%	2.4%	0.2%	100%
1980	75.5%	17.0%	1.8%	97.2%	2.6%	0.2%	100%
1981	76.4%	16.1%	1.6%	97.0%	2.8%	0.2%	100%
1982	77.3%	15.1%	1.4%	96.9%	2.9%	0.2%	100%
1983	77.3%	14.7%	1.4%	96.7%	3.2%	0.2%	100%
1984	78.1%	13.8%	1.3%	96.6%	3.2%	0.2%	100%
1985	78.4%	13.3%	1.2%	96.5%	3.5%	0.0%	100%
1986	77.7%	13.5%	1.2%	96.2%	3.8%	0.0%	100%
1987	77.5%	13.4%	1.2%	96.1%	3.9%	0.0%	100%
1988	77.0%	13.4%	1.1%	95.7%	4.3%	0.0%	100%
1989	76.9%	13.7%	1.2%	95.9%	4.1%	0.0%	100%
1990	77.1%	13.4%	1.2%	95.8%	4.2%	0.0%	100%
1991	75.6%	13.7%	1.2%	95.2%	4.8%	0.0%	100%
1992	73.8%	14.1%	1.1%	94.5%	5.5%	0.0%	100%
1993	73.2%	13.2%	1.2%	93.8%	6.2%	0.0%	100%
1994	73.3%	12.1%	1.3%	93.4%	6.6%	0.0%	100%
1995	72.6%	12.4%	1.2%	93.1%	6.9%	0.0%	100%
1996	72.3%	12.8%	1.2%	93.2%	6.8%	0.0%	100%
1997	70.4%	14.0%	1.2%	92.8%	7.2%	0.0%	100%
1998	68.1%	14.6%	1.5%	92.1%	7.9%	0.0%	100%
1999	67.2%	15.1%	1.5%	91.9%	8.1%	0.0%	100%
2000	65.9%	16.0%	1.6%	91.8%	8.2%	0.0%	100%
2001	64.8%	15.8%	1.8%	91.2%	8.8%	0.0%	100%
2002	64.4%	15.6%	1.8%	90.9%	9.1%	0.0%	100%
2003	65.4%	14.6%	1.7%	90.9%	9.1%	0.0%	100%
2004	65.8%	15.4%	1.3%	91.2%	8.8%	0.0%	100%
2005	67.4%	14.1%	1.4%	91.5%	8.5%	0.0%	100%

Source: Carbon Dioxide Information Analysis Center, 2008.

Figure 8B.1. Carbon Dioxide Emissions, 1950-2005

Table 8B.2. National Sulfur Dioxide and Particulate Emissions (Mt) ^[1], 1980-2005

Year	Total	Sulfur Dioxide					Particulates from Combustion ^[6]					Particulates from Industrial Processes ^[7] (non-combustion)				
		House-holds	Industry Subtotal	Industry ^[2]			Total	House-holds	Industry Subtotal	Industry		Total Industry	County Level & above ^[4]	Township & Village ^[5]		
				Combustion	Non-Combustion ^[3]	County Level & above ^[4]				County Level & above ^[4]	Township & Village ^[5]					
1980	16.00						14.85									
1985	13.24						12.95						13.05			
1986	12.50						13.84						11.70			
1987	14.12						14.45						10.04			
1988	15.23						14.36						11.26			
1989	15.64						13.98						8.40			
1990	14.95						13.24						7.81			
1991	16.22	4.57				11.65	13.14	4.69		8.45			5.79			
1992	16.85	3.62			11.24	1.98	13.23	5.44		8.70			5.76			
1993	17.95	5.03			10.75	2.18	12.92	5.36		8.80			6.17			
1994	18.25	4.84			11.23	2.18	13.41	6.07		8.07			5.83			
1995 ^[8]	23.70	4.16	19.54		11.76	2.29	14.05	5.49	24.71	6.40	18.31	8.38	9.93	19.97	6.39	13.58
1996	23.57				11.77	1.86	13.64					7.58			5.62	
1997	22.66	4.94	17.72		11.84	1.79	13.63	4.09	15.73	3.08	12.65	6.85	5.80	15.05	5.48	9.57
1998	20.91	4.97	15.94		13.89	2.05	12.10	3.84	14.55	2.76	11.79	6.80	4.99	13.22	5.06	8.16
1999	18.57	3.97	14.60		12.65	1.95	10.78	3.82	11.59	2.06	9.53	5.57	3.96	11.75	4.58	7.17
2000	19.95	3.83	16.61		13.86	2.75			11.65	2.12	9.53			10.92		
2001	19.48	3.81	15.67		13.35	2.32			10.70	2.18	8.52			9.91		
2002	19.27	3.65	15.62		13.34	2.28			10.12	2.08	8.04			9.41		
2003	21.59	3.67	17.91		15.43	2.48			10.49	2.03	8.46			10.21		
2004	22.55	3.64	18.91		16.01	2.91			10.95	2.09	8.87			9.05		
2005	25.49	3.81	21.68		18.43	3.30			11.82	2.34	9.49			9.11		

[1] Coverage of these statistical categories has changed over the years. Before 1991, emissions data for the "industry" category included all enterprises at the county level and above engaged in production activities, whether industrial or not, whereas in 1991 and later years this covered only industrial enterprises in polluting sectors, leaving out enterprises in other sectors. The coverage of administrative level has also changed. Overall totals before 1995 exclude township and village enterprises.

Note that the industrial series for "county level and above" goes back much farther than for total industry, and that the number of enterprises covered has changed significantly. In 1996, the "county level and above" category covered nearly 63,000 enterprises, whereas in 1999 only 46,000 were included, partly due to mergers and closures. The 1999 and later figures for "industry subtotals" include data collected from the "county-level and above" enterprises, as well as data from 25,000 township and village (small-scale) enterprises, plus SEPA's estimates for emissions from all remaining industrial enterprises, based on production data and estimated emissions factors. SEPA calculated household emissions figures (which also apparently include other non-industrial emissions besides households) based on household sector coal use and emissions factors estimated from survey data on sulfur and ash content of coal.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities. For 1998 and later years, combustion and noncombustion particulate subcategories include all industrial enterprises, instead of only enterprises at the county level and above.

[3] Obtained from direct measurements, mass balances, or empirical equations.

[4] This category covers a smaller range of enterprises than the data in the columns to the left covering "industry subtotal", which includes enterprises below the county level. The "county level and above" data are those that typically appear in NBS's *China Statistical Yearbooks*. The "county level and above" and "township and village" categories sum to "industry subtotal."

[5] Non-state enterprises, generally rural, administered below the county level.

[6] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[7] Solid particulate matter (*fenchen*) released in the course of production processes (e.g., grinding and sorting). Calculated as the product of emissions gas volume, particulate density at outlet, and duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

[8] Note the change in definition of total emissions, as described in footnote [1]. 1995 was the first year in which emissions estimates for township and village enterprises were presented, and reported emissions of "particulates from combustion" were very high compared to other years. Total emissions of "particulates from combustion" were 14.78 Mt in 1995, according to the pre-1995 definition.

Source: EB, China Environmental Yearbook, various years; SSB, China Statistical Yearbook, various years; CCTV, 2000; SEPA, 1999.

Figure 8B.2. Sulfur Dioxide and Particulate Emissions, 1997-2005

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province

1. 1993

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (t/km ² -yr)	Particulate Emissions Density (t/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)				
North	Beijing	366	204	18	261	109	64	17	21.80	19.40
	Tianjin	238	176	6	173	73	37	11	21.03	18.61
	Hebei	1,021	860	131	693	460	407	188	5.43	5.85
	Shanxi	1,329	615	102	837	332	219	156	8.51	6.76
	Inner Mongolia	658	434	105	736	387	174	1,200	0.55	0.76
Northeast	Liaoning	1,081	823	199	1,069	653	597	146	7.42	11.43
	Jilin	286	188	42	686	642	112	138	2.07	5.78
	Heilongjiang	322	219	16	1,279	467	186	473	0.68	3.09
East	Shanghai	441	357	22	189	148	66	6	71.16	41.14
	Jiangsu	1,200	914	127	757	581	284	103	11.70	10.15
	Zhejiang	536	417	50	289	184	219	102	5.27	4.99
	Anhui	444	341	87	641	243	198	140	3.18	6.01
	Fujian	184	154	14	80	72	151	122	1.51	1.90
	Jiangxi	343	247	35	338	282	271	167	2.05	3.65
	Shandong	2,280	1,376	160	1,348	525	336	153	14.89	11.00
South-Central	Henan	519	409	45	613	439	290	167	3.11	5.41
	Hubei	488	383	117	439	230	260	188	2.60	3.72
	Hunan	528	515	112	275	270	305	210	2.51	2.76
	Guangdong	543	508	86	264	243	532	178	3.05	4.47
	Guangxi	655	522	58	337	249	188	231	2.84	2.28
	Hainan	25	24	3	17	12	12	34	0.72	0.85
Southwest	Sichuan	1,784	1,194	198	1,015	1,238	512	567	3.15	2.69
	Guizhou	737	585	108	347	236	156	176	4.18	2.85
	Yunnan	316	259	68	257	181	127	392	0.80	0.98
	Xizang (Tibet)	1.9	1.7	0.0	0.1	0.1	15	1,183	0.00	0.01
Northwest	Shaanxi	668	560	43	523	383	136	205	3.26	3.22
	Gansu	389	338	187	207	149	141	455	0.86	0.76
	Qinghai	24	17	21	90	42	27	779	0.03	0.15
	Ningxia	238	164	7	136	109	59	66	3.61	2.95
	Xinjiang	305	135	26	267	164	86	1,635	0.19	0.22
National Total/Average		17,948	12,925	2,179	14,163	8,804	6,166	9,586	1.87	2.12
Balance		305	125	7	267	-136	86	1,635		

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

2. 1994

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (t/km ² -yr)	Particulate Emissions Density (t/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)				
North	Beijing	352	176	17	263	126	59	17	20.98	19.16
	Tianjin	257	195	6	186	86	33	11	22.74	19.42
	Hebei	1,085	906	152	775	478	381	188	5.77	6.15
	Shanxi	949	684	98	795	343	197	156	6.08	6.35
	Inner Mongolia	658	499	54	790	386	148	1,200	0.55	0.78
Northeast	Liaoning	1,048	771	158	1,011	593	431	146	7.19	9.89
	Jilin	268	184	42	584	333	149	138	1.94	5.31
	Heilongjiang	320	232	15	1,058	457	166	473	0.68	2.59
East	Shanghai	452	362	36	184	141	62	6	72.88	39.69
	Jiangsu	1,523	983	141	686	519	294	103	14.84	9.55
	Zhejiang	544	412	47	265	163	213	102	5.34	4.70
	Anhui	393	310	79	494	227	216	140	2.82	5.09
	Fujian	152	127	18	373	86	179	122	1.25	4.55
	Jiangxi	509	416	48	396	281	282	167	3.05	4.06
	Shandong	2,247	1,431	156	1,300	566	344	153	14.68	10.74
South-Central	Henan	569	460	63	657	477	257	167	3.41	5.48
	Hubei	517	395	110	422	220	225	188	2.76	3.45
	Hunan	527	516	140	278	271	245	210	2.51	2.49
	Guangdong	607	581	100	306	286	565	178	3.41	4.90
	Guangxi	616	511	72	323	239	201	231	2.67	2.27
	Hainan	26	24	4	11	14	13	34	0.77	0.69
Southwest	Sichuan	1,832	1,027	192	1,092	494	323	567	3.23	2.50
	Guizhou	734	623	86	339	242	156	176	4.16	2.81
	Yunnan	331	249	66	255	161	140	392	0.84	1.01
	Xizang (Tibet)	2	2	0	0	0	15	1,183	0.00	0.01
Northwest	Shaanxi	827	642	67	556	436	211	205	4.03	3.74
	Gansu	374	323	175	255	168	109	455	0.82	0.80
	Qinghai	33	24	3	87	36	28	779	0.04	0.15
	Ningxia	222	166	6	107	95	59	66	3.36	2.52
	Xinjiang	275	182	36	288	148	125	1,635	0.17	0.25
National Total/Average		18,250	13,414	2,184	14,138	8,069	5,828	9,586	1.90	2.08

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

3. 1995

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (t/km ² -yr)	Particulate Emissions Density (t/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)				
North	Beijing	383	215	24	279	124	63	17	22.79	20.32
	Tianjin	326	262	8	197	93	30	11	28.88	20.05
	Hebei	1,162	944	146	680	446	371	188	6.18	5.59
	Shanxi	1,007	658	58	830	362	221	156	6.45	6.73
	Inner Mongolia	742	532	58	941	397	195	1,200	0.62	0.95
Northeast	Liaoning	1,085	816	135	973	605	399	146	7.44	9.41
	Jilin	317	202	30	648	367	148	138	2.29	5.77
	Heilongjiang	342	245	16	1,086	461	135	473	0.72	2.58
East	Shanghai	489	381	28	186	133	63	6	78.80	40.09
	Jiangsu	924	1,045	149	411	541	270	103	9.01	6.63
	Zhejiang	541	413	51	262	147	187	102	5.32	4.42
	Anhui	492	352	88	632	260	220	140	3.53	6.11
	Fujian	167	143	30	123	90	217	122	1.37	2.80
	Jiangxi	363	281	50	383	280	229	167	2.17	3.67
	Shandong	2,319	1,582	129	1,296	606	390	153	15.15	11.01
South-Central	Henan	659	530	75	691	479	402	167	3.95	6.55
	Hubei	540	402	114	432	192	238	188	2.88	3.57
	Hunan	561	579	167	318	307	271	210	2.67	2.80
	Guangdong	560	535	105	230	208	642	178	3.15	4.90
	Guangxi	757	579	85	498	300	276	231	3.28	3.36
	Hainan	24	25	5	12	12	14	34	0.72	0.77
Southwest	Sichuan	2,233	1,082	273	1,380	597	430	567	3.94	3.19
	Guizhou	715	567	78	400	249	205	176	4.06	3.43
	Yunnan	359	258	81	280	161	178	392	0.92	1.17
	Xizang (Tibet)	2	2	0	0	5	11	1,183	0.00	0.01
Northwest	Shaanxi	802	652	66	697	477	244	205	3.91	4.59
	Gansu	422	347	189	366	178	122	455	0.93	1.07
	Qinghai	33	26	3	93	39	34	779	0.04	0.16
	Ningxia	233	173	5	111	94	54	66	3.53	2.50
	Xinjiang	349	222	45	339	172	132	1,635	0.21	0.29
National Total/Average		18,908	14,050	2,293	14,775	8,380	6,390	9,586	1.97	2.21

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

4. 1996

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)	
North	Beijing		212	16		111	58
	Tianjin		200	4		86	31
	Hebei		983	168		436	362
	Shanxi		670	53		337	191
	Inner Mongolia		542	62		400	195
Northeast	Liaoning		806	122		596	365
	Jilin		199	20		339	124
	Heilongjiang		236	16		431	135
East	Shanghai		433	28		148	52
	Jiangsu		1,041	62		485	231
	Zhejiang		400	39		137	167
	Anhui		319	63		183	215
	Fujian		144	20		85	182
	Jiangxi		258	46		222	204
	Shandong		1,557	99		577	315
South-Central	Henan		515	65		449	296
	Hubei		388	90		181	265
	Hunan		523	157		264	273
	Guangdong		525	102		199	442
	Guangxi		527	71		228	219
	Hainan		22	2		14	36
Southwest	Sichuan		959	144		496	489
	Guizhou		586	34		247	108
	Yunnan		270	83		137	113
	Xizang (Tibet)		2	0		5	20
Northwest	Shaanxi		610	48		362	213
	Gansu		342	205		158	114
	Qinghai		17	4		46	27
	Ningxia		176	6		98	47
	Xinjiang		170	34		127	127
National Total/Average			13,636	1,862		7,583	5,615

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

5. 1997

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6]
		Total ^[1]	Portion from Industry ^[2]	Non-Combustion ^[3]	Total	Portion from Industry ^[5]	(non-combustion)
		(kt)	(kt)	(kt)	(kt)	(kt)	(kt)
North	Beijing		211	7		95	69
	Tianjin		235	7		81	29
	Hebei		1,009	160		408	369
	Shanxi		689	72		348	235
	Inner Mongolia		532	59		370	218
Northeast	Liaoning		838	143		573	362
	Jilin		193	24		303	99
	Heilongjiang		224	11		412	126
East	Shanghai		401	18		116	40
	Jiangsu		998	50		361	145
	Zhejiang		411	33		129	196
	Anhui		332	71		167	217
	Fujian		117	19		45	198
	Jiangxi		217	31		174	146
	Shandong		1,497	76		477	345
South-Central	Henan		681	104		468	427
	Hubei		387	105		180	230
	Hunan		468	148		209	258
	Guangdong		476	59		155	318
	Guangxi		498	69		188	268
	Hainan		17	3		16	29
Southwest	Chongqing		397	27		94	144
	Sichuan		641	108		391	264
	Guizhou		609	36		177	135
	Yunnan		270	73		145	95
	Xizang (Tibet)		1	0		5	20
Northwest	Shaanxi		548	38		323	209
	Gansu		358	201		167	95
	Qinghai		25	10		50	31
	Ningxia		186	6		94	50
	Xinjiang		160	20		127	114
National Total/Average			13,626	1,788		6,846	5,484

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

6. 1998

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (t/km ² -yr)	Particulate Emissions Density (t/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)				
North	Beijing	305	193	8	121	83	95	17	11.48	12.88
	Tianjin	230	200	4	97	80	26	11	17.73	10.89
	Hebei	1,403	1,212	210	1,032	792	1,006	188	6.45	10.84
	Shanxi	1,420	1,100	108	1,827	1,314	802	156	7.05	16.84
	Inner Mongolia	728	569	66	570	362	203	1,200	0.47	0.64
Northeast	Liaoning	992	752	115	891	751	577	146	5.16	10.07
	Jilin	284	212	23	457	361	159	138	1.53	4.46
	Heilongjiang	300	222	10	543	445	124	473	0.47	1.41
East	Shanghai	489	391	19	156	107	101	6	63.04	41.56
	Jiangsu	1,255	1,216	77	534	518	549	103	11.85	10.55
	Zhejiang	660	625	69	369	352	708	102	6.14	10.58
	Anhui	424	379	80	342	310	585	140	2.72	6.65
	Fujian	165	155	23	99	89	459	122	1.28	4.60
	Jiangxi	305	244	24	178	170	374	167	1.46	3.31
	Shandong	2,259	1,760	99	919	785	925	153	11.50	12.05
South-Central	Henan	1,003	768	101	648	612	966	167	4.60	9.67
	Hubei	569	492	115	322	278	605	188	2.62	4.95
	Hunan	722	619	157	450	410	874	210	2.95	6.30
	Guangdong	679	643	74	342	324	922	178	3.61	7.10
	Guangxi	701	643	82	436	402	614	231	2.79	4.55
	Hainan	20	20	3	21	21	28	34	0.59	1.44
Southwest	Chongqing	680	364	28	273	129	223	82	8.26	6.01
	Sichuan	1,408	718	139	1,792	1,433	705	485	2.90	5.15
	Guizhou	1,928	852	72	672	473	441	176	10.94	6.31
	Yunnan	360	307	76	355	312	207	392	0.92	1.43
	Xizang (Tibet)	1	1	1	5	5	17	1,183	0.00	0.02
Northwest	Shaanxi	660	561	51	438	397	447	205	3.22	4.32
	Gansu	383	332	171	228	189	163	455	0.84	0.86
	Qinghai	31	20	4	77	60	83	779	0.04	0.21
	Ningxia	215	186	9	101	83	75	66	3.26	2.66
	Xinjiang	336	191	35	255	135	148	1,635	0.21	0.25
National Total/Average		20,914	15,944	2,053	14,551	11,785	13,212	9,586	2.18	2.90

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

7. 1999

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (t/km ² -yr)	Particulate Emissions Density (t/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)				
North	Beijing	233	162	7	79	56	100	17	13.90	10.66
	Tianjin	242	152	4	109	58	21	11	21.45	11.55
	Hebei	1,326	1,117	173	914	714	907	188	7.05	9.69
	Shanxi	1,239	932	130	925	801	617	156	7.94	9.88
	Inner Mongolia	691	522	62	550	347	169	1,200	0.58	0.60
Northeast	Liaoning	937	724	141	816	623	453	146	6.43	8.70
	Jilin	294	210	49	387	307	134	138	2.13	3.78
	Heilongjiang	294	215	13	527	422	118	473	0.62	1.36
East	Shanghai	403	311	17	136	90	41	6	65.02	28.50
	Jiangsu	980	935	65	439	423	458	103	9.55	8.74
	Zhejiang	636	608	72	336	325	690	102	6.25	10.08
	Anhui	410	364	79	355	320	451	140	2.94	5.78
	Fujian	190	170	17	97	80	377	122	1.57	3.90
	Jiangxi	284	237	29	190	185	357	167	1.70	3.28
	Shandong	1,830	1,452	80	713	581	787	153	11.95	9.80
South-Central	Henan	850	678	91	756	658	1,004	167	5.09	10.55
	Hubei	553	504	110	336	309	484	188	2.95	4.37
	Hunan	758	606	163	433	421	784	210	3.61	5.79
	Guangdong	695	669	81	347	335	944	178	3.90	7.26
	Guangxi	583	548	75	324	320	458	231	2.53	3.39
	Hainan	22	22	4	22	22	21	34	0.66	1.27
Southwest	Chongqing	941	759	38	236	141	182	82	11.42	5.08
	Sichuan	813	526	114	566	534	665	485	1.68	2.54
	Guizhou	1,494	679	65	569	402	484	176	8.48	5.97
	Yunnan	337	277	54	380	257	235	392	0.86	1.57
	Xizang (Tibet)	1	1	0	1	1	3	1,183	0.00	0.00
Northwest	Shaanxi	648	573	45	435	395	394	205	3.16	4.04
	Gansu	312	257	119	179	135	149	455	0.69	0.72
	Qinghai	31	19	4	70	53	64	779	0.04	0.17
	Ningxia	208	176	13	118	92	80	66	3.15	3.01
	Xinjiang	337	198	34	244	125	120	1,635	0.21	0.22
National Total/Average		18,575	14,601	1,947	11,590	9,534	11,753	9,587	1.94	2.43

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

8. 2000

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[4]		Particulates from Industrial Processes ^[5,6] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (t/km ² -yr)	Particulate Emissions Density (t/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion ^[3] (kt)	Total (kt)	Portion from Industry ^[5] (kt)				
North	Beijing	224	146.4	77.5	100	52	49	17	13.33	5.97
	Tianjin	330	214	116	172	112	59	11	29.19	15.19
	Hebei	1,321	1,134	188	788	672	116	188	7.03	4.19
	Shanxi	1,202	903	299	985	791	194	156	7.70	6.31
	Inner Mongolia	664	506	158	484	303	180	1,200	0.55	0.40
Northeast	Liaoning	932	706	227	797	547	250	146	6.40	5.47
	Jilin	286	202	84	363	283	80	138	2.07	2.63
	Heilongjiang	297	222	75	508	409	99	473	0.63	1.07
East	Shanghai	465	327	138	141	83	58	6	74.98	22.77
	Jiangsu	1,202	1,141	61	396	375	21	103	11.71	3.86
	Zhejiang	593	562	31	254	247	7	102	5.82	2.50
	Anhui	395	351	45	281	244	37	140	2.83	2.01
	Fujian	225	214	11	115	104	12	122	1.85	0.95
	Jiangxi	323	288	35	240	234	6	167	1.94	1.44
	Shandong	1,796	1,461	335	673	543	130	153	11.73	4.39
South-Central	Henan	877	747	130	735	691	44	167	3.36	4.40
	Hubei	773	508	52	363	322	42	188	4.12	1.94
	Hunan	905	627	146	441	381	60	210	4.31	2.10
	Guangdong	830	882	23	276	265	12	178	4.66	1.55
	Guangxi	204	801	30	599	591	8	231	0.89	2.60
	Hainan	839	20	2	18	18	0	34	24.69	0.53
Southwest	Chongqing	1,223	664	175	214	122	92	82	14.84	2.59
	Sichuan	1,450	994	229	904	799	105	485	2.99	1.86
	Guizhou	386	643	808	506	343	163	176	2.19	2.87
	Yunnan	386	324	62	286	233	53	392	0.98	0.73
	Xizang (Tibet)	80	1	-	1	1	0	1,183	0.07	0.00
Northwest	Shaanxi	623	554	70	411	372	39	205	3.04	2.01
	Gansu	369	312	57	167	125	42	455	0.81	0.37
	Qinghai	32	20	12	82	64	18	779	0.04	0.10
	Ningxia	206	174	32	151	126	26	66	3.12	2.29
	Xinjiang	311	188	123	205	84	120.7	1,635	0.19	0.13
National Total/Average		19,951	16,125	3,826	11,654	9,533	2,121	9,587	2.08	1.22

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] Obtained from direct measurements, mass balances, or empirical equations. This is a subcategory within industrial emissions.

[4] This is a rendering of the Chinese term *yanchen*, which means literally "smoke dust".

[5] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[6] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

9. 2001

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[3]		Particulates from Industrial Processes ^[4,5] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (kt/km ² -yr)	Particulate Emissions Density (kt/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion (kt)	Total (kt)	Portion from Industry ^[4] (kt)				
North	Beijing	201	126	74	90	44	63	17	11.96	5.36
	Tianjin	268	199	69	133	84	24	11	23.72	11.77
	Hebei	1,289	1,096	193	719	552	673	188	6.86	3.82
	Shanxi	1,199	902	297	1,026	832	503	156	7.68	6.57
	Inner Mongolia	646	485	161	396	240	145	1,200	0.54	0.33
Northeast	Liaoning	839	608	232	709	475	394	146	5.75	4.86
	Jilin	265	191	75	325	242	121	138	1.92	2.36
	Heilongjiang	292	219	73	490	399	104	473	0.62	1.04
East	Shanghai	473	300	173	135	62	18	6	76.29	21.77
	Jiangsu	1,148	1,088	61	429	408	268	103	11.19	4.18
	Zhejiang	592	556	36	202	187	308	102	5.82	1.98
	Anhui	396	349	48	264	226	253	140	2.84	1.89
	Fujian	200	186	14	101	90	159	122	1.65	0.83
	Jiangxi	306	259	47	168	159	208	167	1.83	1.01
	Shandong	1,722	1,409	313	648	527	644	153	11.25	4.23
South-Central	Henan	897	760	137	695	645	705	167	5.37	4.16
	Hubei	540	484	56	308	284	353	188	2.88	1.64
	Hunan	762	587	175	449	379	627	210	3.63	2.14
	Guangdong	973	935	39	203	182	359	178	5.47	1.14
	Guangxi	697	663	34	479	474	473	231	3.02	2.08
	Hainan	20	19	1	10	9	13	34	0.59	0.29
Southwest	Chongqing	722	569	153	19	110	214	82	8.76	0.23
	Sichuan	1,135	941	194	888	766	532	485	2.34	1.83
	Guizhou	1,381	571	810	495	282	250	176	7.83	2.81
	Yunnan	357	294	63	235	195	98	392	0.91	0.60
	Xizang (Tibet)	1	1		1	1	2	1,183	0.00	0.00
Northwest	Shaanxi	619	542	77	364	295	294	205	3.02	1.78
	Gansu	370	315	55	163	122	129	455	0.81	0.36
	Qinghai	35	24	11	60	42	46	779	0.04	0.08
	Ningxia	200	169	32	125	108	97	66	3.03	1.89
	Xinjiang	300	189	110.99	198	98	98	1,635	0.18	0.12
National Total/Average		19,478	15,666	3,812	10,698	8,519	9,906	9,587	2.03	1.12

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] This is a rendering of the Chinese term yanchen, which means literally "smoke dust".

[4] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[5] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

10. 2002

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[3]		Particulates from Industrial Processes ^[4,5] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (kt/km ² -yr)	Particulate Emissions Density (kt/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion (kt)	Total (kt)	Portion from Industry ^[4] (kt)				
North	Beijing	192	121	71	81	33	46	17	11.43	4.82
	Tianjin	235	201	34	96	78	26	11	20.80	8.50
	Hebei	1,279	1,053	226	738	545	630	188	6.80	3.93
	Shanxi	1,199	907	292	1,008	818	493	156	7.68	6.46
	Inner Mongolia	731	559	172	424	253	140	1,200	0.61	0.35
Northeast	Liaoning	793	573	220	636	424	339	146	5.44	4.36
	Jilin	265	187	78	303	228	102	138	1.92	2.20
	Heilongjiang	287	213	74	473	380	97	473	0.61	1.00
East	Shanghai	447	325	122	107	56	15	6	72.10	17.26
	Jiangsu	1,120	1,055	65	386	370	226	103	10.92	3.76
	Zhejiang	624	594	30	197	187	326	102	6.13	1.94
	Anhui	396	349	47	243	207	241	140	2.84	1.74
	Fujian	193	181	12	84	75	148	122	1.59	0.69
	Jiangxi	293	248	45	158	149	239	167	1.76	0.95
	Shandong	1,690	1,394	296	619	502	603	153	11.04	4.04
South-Central	Henan	937	807	130	682	623	682	167	5.61	4.09
	Hubei	529	473	66	296	270	335	188	2.82	1.58
	Hunan	743	576	167	434	367	608	210	3.54	2.07
	Guangdong	974	952	22	192	179	334	178	5.47	1.08
	Guangxi	683	646	37	457	451	430	231	2.96	1.98
	Hainan	22	22	0	12	11	12	34	0.65	0.35
Southwest	Chongqing	700	552	148	188	111	203	82	8.50	2.28
	Sichuan	1,117	930	187	852	714	427	485	2.30	1.76
	Guizhou	1,325	577	748	428	362	241	176	7.52	2.43
	Yunnan	364	293	71	176	132	78	392	0.93	0.45
	Xizang (Tibet)	1	1		1	1	2	1,183	0.00	0.00
Northwest	Shaanxi	638	554	84	328	263	274	205	3.11	1.60
	Gansu	427	374	53	156	114	118	455	0.94	0.34
	Qinghai	32	22	10	61	39	41	779	0.04	0.08
	Ningxia	222	187	35	121	103	108	66	3.36	1.83
	Xinjiang	296	193	103	191	98	94	1,635	0.18	0.12
National Total/Average		19,266	15,620	3,646	10,127	8,042	9,410	9,587	2.01	1.06

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] This is a rendering of the Chinese term yanchen, which means literally "smoke dust".

[4] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[5] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

11. 2003

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[3]		Particulates from Industrial Processes ^[4,5] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (kt/km ² -yr)	Particulate Emissions Density (kt/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion (kt)	Total (kt)	Portion from Industry ^[4] (kt)				
North	Beijing	183	114	69	71	29	32	17	10.89	4.23
	Tianjin	259	230	29	103	87	22	11	22.92	9.12
	Hebei	1,422	1,195	227	700	539	655	188	7.56	3.72
	Shanxi	1,363	1,033	330	1,097	878	635	156	8.73	7.03
	Inner Mongolia	1,288	1,138	150	480	329	324	1,200	1.07	0.40
Northeast	Liaoning	823	637	186	588	405	347	146	5.64	4.03
	Jilin	272	188	84	289	201	116	138	1.97	2.09
	Heilongjiang	356	285	71	508	417	110	473	0.75	1.07
East	Shanghai	451	316	135	115	50	17	6	72.74	18.55
	Jiangsu	1,240	1,178	62	388	371	450	103	12.09	3.78
	Zhejiang	734	707	27	205	194	368	102	7.21	2.01
	Anhui	455	405	50	260	225	442	140	3.26	1.86
	Fujian	304	293	11	104	96	165	122	2.50	0.86
	Jiangxi	438	392	46	197	189	333	167	2.63	1.18
	Shandong	1,836	1,540	296	624	503	761	153	11.99	4.08
South-Central	Henan	1,039	902	137	692	634	734	167	6.23	4.15
	Hubei	609	543	66	293	268	335	188	3.25	1.56
	Hunan	848	671	177	483	411	702	210	4.04	2.30
	Guangdong	1,075	1,054	21	229	219	438	178	6.04	1.29
	Guangxi	874	831	43	530	521	503	231	3.79	2.30
	Hainan	23	22	1	11	11	13	34	0.68	0.32
Southwest	Chongqing	766	613	153	194	120	222	82	9.30	2.35
	Sichuan	1,207	1,051	156	834	744	465	485	2.49	1.72
	Guizhou	1,323	570	753	391	222	253	176	7.50	2.22
	Yunnan	453	381	72	170	131	122	392	1.16	0.43
	Xizang (Tibet)	1	1		1	1	2	1,183	0.00	0.00
Northwest	Shaanxi	766	651	115	346	277	320	205	3.74	1.69
	Gansu	494	441	53	176	132	156	455	1.09	0.39
	Qinghai	61	51	10	60	39	59	779	0.08	0.08
	Ningxia	293	258	35	126	109	181	66	4.44	1.91
	Xinjiang	331	223	108	206	110	158	1,635	0.20	0.13
National Total/Average		21,587	17,914	3,673	10,471	8,462	9,440	9,587	2.25	1.09

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] This is a rendering of the Chinese term yanchen, which means literally "smoke dust".

[4] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[5] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

12. 2004

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[3]		Particulates from Industrial Processes ^[4,5] (non-combustion)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (kt/km ² -yr)	Particulate Emissions Density (kt/km ² -yr)
		Total ^[1] (kt)	Portion from Industry ^[2] (kt)	Non-Combustion (kt)	Total (kt)	Portion from Industry ^[4] (kt)				
North	Beijing	191	125	66	70	29	36	17	11.37	4.17
	Tianjin	228	201	26	84	69	19	11	20.18	7.43
	Hebei	1,428	1,215	213	723	542	724	188	7.60	3.85
	Shanxi	1,415	1,093	322	1,091	877	673	156	9.06	6.99
	Inner Mongolia	1,179	1,034	145	661	500	358	1,200	0.98	0.55
Northeast	Liaoning	831	649	182	578	390	344	146	5.70	3.96
	Jilin	285	216	69	339	258	108	138	2.07	2.46
	Heilongjiang	373	295	78	527	429	116	473	0.79	1.11
East	Shanghai	473	350	124	117	53	17	6	76.29	18.87
	Jiangsu	1,240	1,183	57	415	398	353	103	12.09	4.04
	Zhejiang	814	789	25	219	208	333	102	8.00	2.15
	Anhui	489	439	51	257	221	460	140	3.51	1.84
	Fujian	326	310	16	110	97	175	122	2.68	0.91
	Jiangxi	519	469	50	219	209	354	167	3.11	1.31
	Shandong	1,821	1,544	277	576	458	398	153	11.89	3.76
South-Central	Henan	1,256	1,113	143	767	705	720	167	7.53	4.60
	Hubei	692	608	84	306	273	344	188	3.69	1.63
	Hunan	872	712	161	531	452	726	210	4.15	2.53
	Guangdong	1,148	1,128	20	261	252	394	178	6.45	1.47
	Guangxi	944	897	47	548	538	512	231	4.10	2.38
	Hainan	23	22	1	11	10	11	34	0.68	0.32
Southwest	Chongqing	795	641	154	204	125	220	82	9.65	2.48
	Sichuan	1,264	1,099	166	864	762	438	485	2.61	1.78
	Guizhou	1,315	600	715	321	185	249	176	7.46	1.82
	Yunnan	478	400	78	184	138	123	392	1.22	0.47
	Xizang (Tibet)	1	1		2	2		1,183	0.00	0.00
Northwest	Shaanxi	818	706	112	375	286	354	205	3.99	1.83
	Gansu	484	438	46	158	123	153	455	1.06	0.35
	Qinghai	74	64	9	76	56	83	779	0.09	0.10
	Ningxia	293	260	33	95	79	88	66	4.44	1.44
	Xinjiang	480	315	166	259	142	168	1,635	0.29	0.16
National Total/Average		22,549	18,916	3,636	10,948	8,866	9,051	9,587	2.35	1.14

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] This is a rendering of the Chinese term yanchen, which means literally "smoke dust".

[4] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[5] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.3. Sulfur Dioxide and Particulate Emissions by Province (continued)

14. 2005

Planning Region	Province	Sulfur Dioxide			Particulates from Combustion ^[3]		Particulates from Industrial Processes ^[4,5] (non-combustion) (kt)	Provincial Area (thousand km ²)	Sulfur Dioxide Emissions Density (kt/km ² -yr)	Particulate Emissions Density (kt/km ² -yr)
		Total ^[1] (kt)	from Industry ^[2] (kt)	Non-Combustion (kt)	Total (kt)	Portion from Industry ^[4] (kt)				
North	Beijing	191	105	85	58	18	33	17	11.37	3.45
	Tianjin	265	241	24	91	77	19	11	23.45	8.05
	Hebei	1,496	1,281	214	732	560	713	188	7.96	3.89
	Shanxi	1,516	1,200	316	1,122	910	695	156	9.71	7.19
	Inner Mongoli	1,456	1,296	160	778	604	456	1,200	1.21	0.65
Northeast	Liaoning	1,197	961	236	746	517	453	146	8.21	5.12
	Jilin	382	308	75	414	327	137	138	2.77	3.00
	Heilongjiang	508	431	77	548	454	124	473	1.07	1.16
East	Shanghai	513	375	138	115	50	11	6	82.74	18.55
	Jiangsu	1,373	1,312	61	452	426	355	103	13.38	4.41
	Zhejiang	860	831	29	212	199	231	102	8.45	2.08
	Anhui	571	515	56	298	253	462	140	4.09	2.14
	Fujian	461	439	22	131	118	193	122	3.79	1.08
	Jiangxi	613	555	58	246	230	350	167	3.68	1.47
	Shandong	2,003	1,715	287	619	485	373	153	13.08	4.04
South-Centra	Henan	1,625	1,471	153	928	857	704	167	9.74	5.56
	Hubei	717	626	92	330	266	338	188	3.82	1.76
	Hunan	919	755	164	539	453	769	210	4.37	2.57
	Guangdong	1,294	1,274	20	279	271	321	178	7.27	1.57
	Guangxi	1,023	975	49	550	538	556	231	4.44	2.39
	Hainan	22	22		11	10	11	34	0.65	0.32
Southwest	Chongqing	837	683	154	216	131	213	82	10.16	2.62
	Sichuan	1,299	1,141	159	791	634	384	485	2.68	1.63
	Guizhou	1,358	659	699	364	205	191	176	7.70	2.06
	Yunnan	522	429	93	227	171	155	392	1.33	0.58
	Xizang (Tibet)	2	1	1	2	2	2	1,183	0.00	0.00
Northwest	Shaanxi	922	800	122	394	292	340	205	4.50	1.92
	Gansu	563	517	46	162	124	166	455	1.24	0.36
	Qinghai	124	115	9	77	57	93	779	0.16	0.10
	Ningxia	343	302	40	123	102	90	66	5.20	1.86
	Xinjiang	516	348	171	271	150	173	1,635	0.32	0.17
National Total/Average		25,491	21,683	3,810	11,826	9,491	9,111	9,587	2.66	1.23

[1] Sum of emissions from industry and households.

[2] From all emissions sources on industrial enterprise premises. Includes electric utilities.

[3] This is a rendering of the Chinese term yanchen, which means literally "smoke dust".

[4] For 1993-1997, data on particulates in the industrial sector do not include emissions from township and village enterprises, but data for 1998 and 1999 do include emissions from these smaller rural factories. See footnote [1], Table 8B.2.

[5] Solid particulate matter released in the course of production processes (e.g. grinding and sorting). Calculated as emissions gas volume times particulate density at outlet times duration of operation. Enterprises are required to report emissions regardless of whether they meet emissions standards.

Source: EB, China Environment Yearbook, various years.

Table 8B.4. Sulfur Dioxide and Particulate Emissions by Industrial Sector

1. Sulfur Dioxide Emissions, 1991 - 2000 (kt)

Sector	1991			1992			1993			1994			1995		
	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]
Mining	460			1,261.86	1,181.51	80.36	463.65	365.41	98.24	481.65	390.10	91.55	472.71	364.39	108.32
Food & beverage	640			568.16	560.41	7.75	561.45	554.52	6.94	524.90	516.62	8.28	553.03	544.13	8.90
Textiles	420			415.96	412.49	3.47	401.31	396.17	5.13	395.44	392.08	3.37	358.44	352.57	5.87
Leather goods	20			19.31	19.22	0.09	19.81	19.76	0.05	18.40	18.25	0.15	16.73	16.48	0.26
Paper	270			281.76	267.60	14.16	281.77	267.82	13.95	270.73	256.81	13.92	325.06	310.08	14.98
Printing	10			12.30	11.34	0.96	9.21	9.09	0.12	9.88	9.50	0.39	9.80	9.69	0.11
Electric utilities	5,280			5,758.15	5,597.99	160.16	6,283.38	6,029.26	254.12	6,856.68	6,625.29	231.39	7,178.42	6,946.09	232.33
Oil refining	70			77.33	61.43	15.90	73.59	62.48	11.11	81.23	69.20	12.03	150.65	137.43	13.23
Coking & coal products ^[2]	80			97.67	45.07	52.61	102.38	55.00	47.38	100.79	46.40	54.39	98.32	51.30	47.02
Chemicals	1,080			1,095.66	830.40	265.27	1,090.25	836.94	253.31	1,087.92	865.65	222.28	1,180.38	949.29	231.09
Pharmaceuticals	110			136.66	124.04	12.63	122.09	113.18	8.91	136.32	134.77	1.55	131.00	127.77	3.23
Chemical fibers	90			116.24	114.56	1.68	113.39	111.75	1.64	114.42	108.88	5.53	114.59	113.63	0.96
Rubber products	70			78.12	76.58	1.54	78.61	78.01	0.60	112.23	111.64	0.58	80.23	80.13	0.10
Plastic products	20			26.09	25.93	0.16	30.36	29.74	0.62	29.77	29.49	0.28	29.22	29.05	0.17
Building materials ^[3]	1,080			1,274.18	714.43	559.74	1,274.89	676.30	598.59	1,187.83	514.29	673.54	1,232.42	521.25	711.17
of which: cement	560			428.47	116.14	312.33	666.70	181.08	485.63	730.97	166.30	564.67	778.26	210.48	567.78
Ferrous metals	70			731.25	409.15	322.10	790.28	415.39	374.90	766.20	393.22	372.98	840.03	440.49	399.54
Nonferrous metals	540			527.25	109.39	417.86	580.01	105.38	474.64	570.22	101.59	468.63	613.46	122.19	491.28
Metals fabrication	50			50.06	42.13	7.93	40.29	38.12	2.17	40.50	38.87	1.63	49.99	47.62	2.37
Machinery & electronics	400			443.48	428.82	14.66	410.78	388.49	22.29	382.57	365.70	16.87	394.17	378.52	15.65
Other	240			254.41	209.11	45.30	197.40	193.49	3.91	246.49	241.65	4.84	221.57	214.98	6.60
Total (reported) ^[4]	11,000			13,225.90	11,241.58	1,984.31	12,924.90	10,746.30	2,178.60	13,414.16	11,229.98	2,184.17	14,050.21	11,757.05	2,293.16

Sector	1996			1997 ^[5]			1998 ^[5]			1999			2000		
	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]
Mining	428.33	319.89	108.44	402.89	308.25	94.64	409.47	309.80	99.67	331.11			330.83	238.04	92.79
Food & beverage	399.11	396.33	2.78	478.25	467.26	10.99	464.43	461.12	3.31	385.50			410.36	404.78	5.57
Textiles	264.95	264.42	0.54	333.98	332.31	1.67	286.41	285.26	1.15	247.18			257.11	256.85	0.27
Leather goods	15.26	15.23	0.03	23.99	23.84	0.15	17.59	17.55	0.04	11.29			12.92	12.91	0.01
Paper	278.47	269.98	8.49	368.39	357.22	11.18	359.46	353.46	6.00	308.15			337.93	334.96	2.98
Printing	6.49	6.28	0.20	10.49	10.18	0.31	6.95	5.66	1.30	4.10			5.17	5.14	0.03
Electric utilities	7,315.73	7,292.84	22.89	7,894.55	7,845.75	48.80	6,967.93	6,933.78	34.15	6,374.39			7,199.55	7,186.24	13.32
Oil refining	138.26	108.77	29.49	188.99	135.94	53.04	281.26	170.53	110.73	832.48			378.17	191.17	187.01
Coking & coal products ^[2]															
Chemicals	1,039.48	846.74	192.74	1,099.06	888.44	210.62	940.76	747.76	193.01	832.48			822.72	655.39	167.33
Pharmaceuticals	105.58	104.94	0.64	94.09	93.17	0.92	80.62	80.04	0.58	72.03			64.50	63.17	1.34
Chemical fibers	140.57	139.03	1.55	158.42	156.26	2.16	141.92	138.90	3.02	127.07			150.21	147.78	2.43
Rubber products	64.08	63.83	0.25	60.18	60.13	0.06	64.99	64.79	0.20	50.81			46.72	46.71	0.01
Plastic products	20.93	18.21	2.72	17.67	17.52	0.15	14.89	14.85	0.04	13.19			14.83	14.21	0.62
Building materials ^[3]	955.87	392.67	563.19	1,296.11	707.29	588.82	2,281.55	1,597.06	684.49	2,155.16			2,339.53	1,624.10	714.43
of which: cement	684.05	175.34	508.70	795.56	227.87	567.69	882.73	288.47	594.26	884.44			1,003.43	353.12	650.31
Ferrous metals	818.87	441.91	376.97	877.82	465.40	412.42	790.32	380.85	409.47	713.92			755.25	368.50	386.84
Nonferrous metals	613.75	175.99	437.76	785.73	273.13	512.60	700.46	224.68	475.78	671.65			715.01	212.48	502.54
Metals fabrication	20.60	19.66	0.94	34.30	25.95	8.35	64.38	62.32	2.06	72.23			73.13	71.97	1.16
Machinery & electronics	298.50	283.64	14.86	328.53	315.43	13.10	262.64	247.44	15.20	202.22			215.05	195.74	19.31
Other	173.53	156.86	16.67	235.38	180.88	54.51	1,727.25	1,714.05	13.20	1,366.41			1,477.16	1,475.54	1.62
Total (reported) ^[4]	13,098.35	11,317.21	1,781.13	14,688.82	12,664.33	2,024.49	15,863.27	13,809.88	2,053.39	14,600.95			16,609.58	13,858.78	2,749.90

[1] Obtained from direct measurements, mass balances, or empirical equations.

[2] In 1996, 1997, 1998, coking and coal numbers are combined with oil refining figures.

[3] For 1996 and 1997, building materials category is renamed "non-metals mineral products" in the data sources.

[4] In some columns in some years, the reported total given here is slightly different than the sum of the sectoral figures.

[5] Note that emissions figures for 1997 begin to include township and village enterprises, in addition to enterprises at the county level and above. Figures for 1998 fully account for township and village enterprises.

Reported emissions of particulates rise sharply due to this definition change, especially due to inclusion of many rural factories producing cement and other building materials.

Source: EB, China Environment Yearbook, various years.

Table 8B.4. Sulfur Dioxide and Particulate Emissions by Industrial Sector (continued)

2. Sulfur Dioxide Emissions, 2001-2005 ^[1] (kt)

Sector	2001	2002	2003	2004	2005
Coal Mining and Dressing	177.67	185.96	155.24	152.09	210.41
Petroleum and Natural Gas Extraction	32.22	33.14	23.54	24.91	32.18
Ferrous Metals Mining and Dressing	68.67	28.17	32.27	57.19	43.21
Nonferrous Metals Mining and Dressing	31.35	58.75	48.82	61.52	66.97
Nonmetal Minerals Mining and Dressing	48.66	66.42	47.83	36.84	56.96
Other Minerals Mining and Dressing	0.44	1.29	2.37	1.37	2.34
Logging and Transport of Wood and Bamboo	5.01	7.82			
Food, Beverage, and Tobacco Processing	392.65	401.94	359.56	386.09	369.13
Textiles Industry	262.58	230.42	246.47	293.67	296.21
Garments and Other Fiber Products	10.52	9.39	9.50	12.96	15.31
Leather, Furs, Down and Related Products	14.16	16.73	13.83	17.35	21.24
Timber Processing, Bamboo, Cane, Palm Fiber and Straw Products	29.61	32.88	34.96	44.47	47.92
Furniture Manufacturing	4.26	2.35	3.17	2.36	3.63
Papermaking and Paper Products	426.16	350.21	362.88	390.75	431.32
Printing and Record Medium Reproduction	6.19	2.62	3.20	2.20	2.45
Cultural, Educational and Sports Goods	3.10	9.36	1.18	3.74	2.66
Petroleum Processing and Coking	344.30	372.96	442.09	679.94	708.52
Raw Chemical Materials and Chemical Products	786.18	735.84	832.68	1,033.83	1,167.56
Medical and Pharmaceutical Products	65.30	62.87	68.33	89.89	64.23
Chemical Fiber	127.60	113.47	127.62	115.83	115.25
Rubber Products	44.79	40.94	41.06	38.44	44.30
Plastic Products	13.16	11.97	9.55	11.63	13.03
Nonmetal Mineral Products	1,573.62	1,550.01	1,553.79	1,748.37	1,783.65
Smelting and Rolling of Ferrous Metals	732.58	813.92	832.36	1,134.09	1,422.38
Smelting and Rolling of Nonferrous Metals	612.34	672.43	581.65	703.64	707.00
Metals Products	28.53	28.30	23.55	31.41	25.53
Machinery, Electric Equipment, Electronic Manufacturing	168.15	171.66	191.81	195.94	186.40
Other Manufacturing Industry	8.11	7.92	3.26	3.64	4.90
Wasted Resources and Wasted Materials Recycling			1.61	0.84	0.45
Electric Power, Steam and Hot Water Production & Supply	7,255.42	7,500.89	8,619.46	9,948.60	11,671.69
Gas Production & Supply	26.65	24.59	285.68	19.40	18.82
Tap Water Production & Supply	2.63	2.89	2.75	6.57	5.25
Other			166.00	212.98	263.82
Total (reported)	15,660.00	15,619.81	15,128.07	17,462.54	19,804.73

[1] Sectoral emission data are reported in greater detail beginning in 2001.

Source: China Statistic Yearbook, 2002 and 2003.

Table 8B.4. Sulfur Dioxide and Particulate Emissions by Industrial Sector

3. Particulate Emissions, 1991 - 2000 (kt)

Sector	1991			1992			1993			1994			1995		
	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]
Mining	600	420	180	1,241.23	1,051.66	189.57	572.83	369.76	203.08	491.37	361.83	129.53	455.48	335.02	120.46
Food & beverage	600	550	50	496.59	459.73	36.86	925.85	868.96	56.89	398.27	371.28	26.99	440.79	408.71	32.08
Textiles	270	250	20	248.40	234.40	14.00	231.67	224.73	6.94	230.61	225.20	5.41	201.94	196.05	5.89
Leather goods	20	20		14.93	14.48	0.45	14.57	13.95	0.63	12.67	11.70	0.97	11.38	10.62	0.76
Paper	260	230	30	225.85	197.41	28.44	326.83	287.50	39.33	208.51	182.58	25.93	248.93	220.12	28.81
Printing	10	10		18.77	18.75	0.01	4.89	4.84	0.05	4.98	4.91	0.07	4.96	4.94	0.02
Electric utilities	4,220	4,180	40	3,966.23	3,883.35	82.88	4,240.97	4,193.40	47.57	4,339.68	4,303.37	36.31	4,479.90	4,443.76	36.15
Oil refining	40	30	10	35.64	25.65	9.99	43.22	31.36	11.85	46.60	32.89	13.71	82.22	66.71	15.51
Coking & coal products ^[2]	120	70	50	134.69	83.16	51.54	154.56	102.08	52.48	180.77	99.83	80.94	163.59	79.00	84.60
Chemicals	870	630	240	865.53	571.48	294.05	861.28	589.33	271.95	804.27	580.36	223.91	825.94	644.17	181.77
Pharmaceuticals	70	70		71.55	65.82	5.73	73.39	68.49	4.90	78.74	76.94	1.80	76.57	75.41	1.17
Chemical fibers	50	50		91.65	58.69	32.95	62.19	56.29	5.89	62.16	57.36	4.80	73.81	65.34	8.47
Rubber products	40	40		45.84	41.41	4.43	37.46	36.74	0.72	32.28	31.09	1.19	43.83	37.21	6.63
Plastic products	10	10		12.68	12.47	0.21	15.26	13.44	1.82	12.35	11.62	0.73	11.87	11.63	0.24
Building materials ^[3]	4,600	740	3,860	4,596.10	812.00	3,784.10	4,868.07	878.83	3,989.24	4,784.58	717.42	4,067.16	5,379.05	756.83	4,622.22
of which: cement	3,150	260	2,890	2,412.16	273.16	2,138.99	3,746.61	392.67	3,353.94	3,820.66	348.71	3,471.96	4,254.37	385.10	3,869.27
Ferrous metals	1,460	440	1,020	1,439.91	515.56	924.36	1,550.98	432.41	1,118.57	1,422.05	423.35	998.71	1,414.99	407.71	1,007.28
Nonferrous metals	210	100	110	180.73	89.81	90.92	281.34	102.52	178.82	199.40	111.42	87.98	257.80	143.38	114.43
Metals fabrication	60	50	10	50.73	43.76	6.97	41.29	34.00	7.29	40.34	35.86	4.48	35.13	31.91	3.23
Machinery & electronics	390	310	80	381.64	289.65	91.99	356.36	281.54	74.82	322.73	268.62	54.11	342.48	290.89	51.59
Other	330	260	70	348.57	235.06	113.50	307.11	214.31	92.80	224.04	160.98	63.07	218.91	150.33	68.58
Total (reported) ^[4]	14,230	8,460	5,770	14,467.24	8,704.28	5,762.96	14,970.10	8,804.46	6,165.64	13,896.39	8,068.59	5,827.80	14,769.57	8,379.71	6,389.86

Sector	1996			1997 ^[5]			1998 ^[5]			1999			2000		
	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]	Total	Combustion	Non-combustion ^[1]
Mining	398.92	254.71	144.21	514.45	303.81	210.64	1,159.11	992.54	166.57	419.87	248.92	170.95	307.18	215.47	91.72
Food & beverage	268.11	249.18	18.93	326.30	310.36	15.94	316.69	304.29	12.40	290.06	266.45	23.61	274.31	259.86	14.46
Textiles	138.27	134.41	3.85	168.89	166.13	2.77	149.66	148.58	1.09	122.91	120.65	2.26	121.63	119.07	2.56
Leather goods	11.48	11.33	0.15	17.27	16.37	0.90	11.47	11.31	0.17	8.26	8.19	0.07	9.13	8.50	0.63
Paper	241.10	201.43	39.67	418.88	284.26	134.62	364.00	259.54	104.46	291.20	259.44	31.76	246.75	209.45	37.30
Printing	3.37	3.35	0.02	9.15	6.47	2.68	3,482.27	3,419.78	0.18	4.18	4.17	0.01	3.03	2.36	0.67
Electric utilities	4,231.84	4,164.88	66.96	4,024.71	3,952.96	71.75	93.67	6.84	62.49	3,110.38	3,074.61	35.78	3,037.70	3,013.12	24.58
Oil refining	118.26	56.49	61.77	166.68	87.16	79.52	274.31	187.48	86.83	328.70	251.64	77.06	301.83	247.60	54.24
Coking & coal products ^[2]	693.13	545.85	147.28	701.11	521.64	179.47	663.65	517.49	146.16	525.47	433.95	91.51	524.04	420.74	103.30
Chemicals	42.42	41.29	1.13	54.74	54.64	0.10	49.49	48.54	0.95	53.55	52.44	1.11	38.26	38.06	0.20
Pharmaceuticals	74.06	59.79	14.28	73.04	58.00	15.04	72.10	58.54	13.56	73.04	58.44	14.60	70.03	55.27	14.76
Chemical fibers	26.10	23.02	3.08	30.98	28.21	2.77	28.84	28.40	0.44	22.82	22.25	0.57	15.49	15.05	0.44
Rubber products	7.47	7.15	0.32	11.67	9.30	2.37	9.89	7.12	2.77	8.61	6.03	2.58	37.00	8.79	28.22
Plastic products	3,954.01	480.96	3,473.05	7,816.68	1,133.20	6,683.48	13,935.64	2,669.60	11,266.03	12,552.32	2,501.29	10,051.03	10,665.68	2,423.93	8,241.76
of which: cement	3,545.19	283.69	3,261.51	6,262.32	420.28	5,842.04	10,946.07	650.35	10,295.71	9,720.28	490.47	9,229.81	8,091.63	409.55	7,682.08
Ferrous metals	1,352.56	364.50	988.06	632.94	439.72	193.21	1,380.03	354.38	1,025.66	1,243.28	311.72	931.56	1,143.12	289.66	853.46
Nonferrous metals	378.51	210.06	168.45	276.54	192.25	84.30	271.45	145.75	125.71	291.87	176.59	115.29	333.13	217.65	115.47
Metals fabrication	22.13	19.06	3.07	110.01	38.90	71.11	129.28	42.78	86.50	130.70	37.43	93.27	123.34	29.38	93.95
Machinery & electronics	238.09	186.51	51.59	282.43	210.68	71.75	227.15	177.60	49.55	172.69	131.15	41.55	150.67	117.81	32.86
Other	164.25	97.29	66.96	182.21	82.77	99.45	2,339.25	2,268.43	70.82	1,628.81	1,564.10	64.71	1,896.60	1,841.45	55.16
Total (reported) ^[4]	12,364.07	7,111.24	5,252.82	15,818.67	7,896.82	7,921.85	24,957.92	11,648.96	13,222.31	21,287.31	9,534.32	11,752.99	20,453.29	9,533.29	10,920.00

[1] Obtained from direct measurements, mass balances, or empirical equations.

[2] In 1996, 1997, 1998, coking and coal numbers are combined with oil refining figures.

[3] For 1996 and 1997, building materials category is renamed "non-metals mineral products" in the data sources.

[4] In some columns in some years, the reported total given here is slightly different than the sum of the sectoral figures.

[5] Note that emissions figures for 1997 begin to include township and village enterprises, in addition to enterprises at the county level and above. Figures for 1998 fully account for township and village enterprises. Reported emissions of particulates rise sharply due to this definition change, especially due to inclusion of many rural factories producing cement and other building materials.

Source: EB, China Environment Yearbook, various years.

Table 8B.4. Sulfur Dioxide and Particulate Emissions by Industrial Sector (continued)

4. Particulate Emissions, 2001 and 2002 ^[1] (kt)

Sector	2001			2002		
	Total	Combustion	Non-combustion	Total	Combustion	Non-combustion
Coal Mining and Dressing	245.13	168.81	76.33	218.92	127.42	91.50
Petroleum and Natural Gas Extraction	20.33	18.54	1.79	21.55	20.22	1.33
Ferrous Metals Mining and Dressing	91.11	37.56	53.55	49.27	25.53	23.74
Nonferrous Metals Mining and Dressing	16.74	7.01	9.73	44.82	25.94	18.87
Nonmetal Minerals Mining and Dressing	71.05	27.55	43.51	139.30	35.49	103.81
Other Minerals Mining and Dressing	0.49	0.48	0.01	0.67	0.62	0.05
Logging and Transport of Wood and Bamboo	18.87	7.54	11.33	9.95	7.69	2.25
Food, Beverage, and Tobacco Processing	383.98	364.02	19.96	395.28	367.58	27.70
Textiles Industry	117.44	114.91	2.54	107.74	104.05	3.69
Garments and Other Fiber Products	3.90	3.79	0.11	3.48	3.35	0.13
Leather, Furs, Down and Related Products	9.01	8.98	0.03	12.02	11.91	0.11
Timber Processing, Bamboo, Cane, Palm Fiber and Straw Products	45.72	35.44	10.28	49.74	40.56	9.19
Furniture Manufacturing	9.15	7.04	2.11	3.71	2.64	1.06
Papermaking and Paper Products	314.51	277.85	36.66	240.23	226.25	13.98
Printing and Record Medium Reproduction	2.90	2.88	0.02	2.05	2.05	
Cultural, Educational and Sports Goods	1.79	1.51	0.28	5.98	4.66	1.32
Petroleum Processing and Coking	268.65	196.20	72.45	292.83	218.54	74.29
Raw Chemical Materials and Chemical Products	540.21	432.84	107.38	599.16	468.77	130.39
Medical and Pharmaceutical Products	43.10	41.57	1.54	37.97	36.67	1.29
Chemical Fiber	59.89	54.08	5.81	63.44	56.19	7.25
Rubber Products	18.50	17.19	1.32	16.60	14.88	1.72
Plastic Products	11.72	5.55	6.17	11.10	5.18	5.92
Nonmetal Mineral Products	6,724.97	1,305.43	5,419.54	6,488.19	1,307.09	5,181.10
Smelting and Rolling of Ferrous Metals	1,255.31	445.14	810.17	1,261.69	397.14	864.56
Smelting and Rolling of Nonferrous Metals	411.40	237.10	174.30	365.48	205.02	160.46
Metals Products	58.16	42.93	15.23	36.06	25.45	10.62
Machinery, Electric Equipment, Electronic Manufacturing	165.47	115.42	50.05	173.49	121.08	52.41
Other Manufacturing Industry	8.45	4.37	4.08	12.26	8.97	3.29
Electric Power, Steam and Hot Water Production & Supply	3,252.55	3,231.96	20.59	3,299.42	3,284.49	14.92
Gas Production & Supply	35.07	10.64	24.44	46.25	12.99	33.26
Tap Water Production & Supply	4.02	1.41	2.61	1.10	1.10	
Total (reported)	18,426.86	8,520.86	9,906.00	17,452.51	8,042.21	9,410.30

[1] Sectoral emission data are reported in greater detail beginning in 2001.

Source: China Statistic Yearbook, 2002 and 2003.

Table 8B.4. Sulfur Dioxide and Particulate Emissions by Industrial Sector (continued)

5. Particulate Emissions, 2003-2005 (kt)

Sector	2003			2004			2005		
	Total	Combustion	Non-combustion	Total	Combustion	Non-combustion	Total	Combustion	Non-combustion
Coal Mining and Dressing	185.61	133.51	52.10	272.32	134.79	137.53	355.20	109.34	245.86
Petroleum and Natural Gas Extraction	14.53	13.12	1.41	14.16	12.58	1.58	15.71	14.35	1.36
Ferrous Metals Mining and Dressing	43.03	22.53	20.50	55.23	19.58	35.65	56.02	16.76	39.26
Nonferrous Metals Mining and Dressing	32.36	14.55	17.81	55.02	29.24	25.78	55.31	26.90	28.42
Nonmetal Minerals Mining and Dressing	75.58	25.14	50.44	93.47	36.93	56.53	156.50	68.14	88.35
Other Minerals Mining and Dressing	5.67	2.88	2.79	22.39	0.73	21.66	2.70	1.37	1.34
Logging and Transport of Wood and Bamboo				0.00					
Food, Beverage, and Tobacco Processing	384.30	364.52	19.78	426.15	400.55	25.60	381.21	351.26	29.95
Textiles Industry	102.95	101.02	1.93	127.04	115.75	11.29	130.80	128.19	2.61
Garments and Other Fiber Products	4.96	4.78	0.18	7.42	6.43	0.98	20.22	7.06	13.16
Leather, Furs, Down and Related Products	7.96	7.90	0.06	13.48	13.32	0.16	11.62	11.42	0.20
Timber Processing, Bamboo, Cane, Palm Fiber and Straw Products	60.56	44.04	16.53	75.86	53.72	22.14	70.93	54.77	16.15
Furniture Manufacturing	3.13	2.23	0.90	1.81	1.72	0.09	4.64	2.23	2.41
Papermaking and Paper Products	247.97	225.43	22.55	242.68	228.29	14.39	256.92	240.79	16.13
Printing and Record Medium Reproduction	2.46	2.02	0.44	1.69	1.69	0.00	1.24	1.23	0.01
Cultural, Educational and Sports Goods	1.61	0.99	0.62	5.62	2.15	3.47	5.27	1.55	3.73
Petroleum Processing and Coking	459.31	301.51	157.81	621.02	468.05	152.98	570.26	381.84	188.42
Raw Chemical Materials and Chemical Products	563.90	432.20	131.70	679.55	507.73	171.82	710.88	535.59	175.28
Medical and Pharmaceutical Products	43.74	42.74	1.00	45.60	44.56	1.04	42.72	41.54	1.18
Chemical Fiber	40.06	36.88	3.18	39.26	37.17	2.09	46.69	45.69	1.01
Rubber Products	17.61	16.52	1.10	16.85	16.52	0.32	19.91	19.64	0.27
Plastic Products	3.80	3.58	0.22	8.86	4.65	4.20	5.92	5.76	0.16
Nonmetal Mineral Products	6,342.28	1,222.74	5,119.54	7,103.68	1,329.19	5,774.49	6,995.89	1,338.76	5,657.12
Smelting and Rolling of Ferrous Metals	1,332.70	419.40	913.30	1,754.37	539.42	1,214.95	1,949.57	692.75	1,256.83
Smelting and Rolling of Nonferrous Metals	333.14	175.68	157.46	390.66	200.81	189.85	379.31	192.16	187.15
Metals Products	25.51	16.62	8.89	25.53	16.98	8.55	27.45	17.07	10.38
Machinery, Electric Equipment, Electronic Manufacturing	236.31	138.85	97.46	231.98	138.35	93.63	194.50	116.03	78.47
Other Manufacturing Industry	5.71	2.42	3.29	4.50	2.13	2.37	7.19	5.03	2.16
Wasted Resources and Wasted Materials Recycling	2.00	1.35	0.65	0.73	0.52	0.20	0.17	0.16	0.01
Electric Power, Steam and Hot Water Production & Supply	3,398.81	3,369.72	29.09	3,565.46	3,485.80	79.66	4,159.97	4,052.05	107.92
Gas Production & Supply	53.43	20.88	32.55	13.87	8.37	5.51	15.47	14.03	1.44
Tap Water Production & Supply	0.65	0.65	0.01	2.45	2.45		2.21	2.21	
Other	101.21	81.31	19.90	203.78	98.09	105.69	177.24	53.19	124.05
Total	14,132.85	7,247.70	6,885.16	16,122.46	7,958.24	8,164.22	16,829.62	8,548.83	8,280.79

Source: China Statistic Yearbook, 2004-2006.

Figure 8B.3. Industrial Pollutant Emissions by Sector, 2005

1. Sulfur dioxide Emissions, 2005 (kt)

2. Particulate Emissions, 2005 (kt)

Figure 8.4. Ambient Air Pollutant Levels in China's Major Cities (Annual Averages) Compared to Chinese Class II Air Quality Standards, 1980-2004

Total Suspended Particulates ($\mu\text{g}/\text{m}^3$), 1980-2004

Nitrogen Oxides^[1] ($\mu\text{g}/\text{m}^3$), 1980-2005

Sulfur Dioxide ($\mu\text{g}/\text{m}^3$), 1980-2004

- Average of Southern Cities
- Average of Northern Cities
- - Annual Average Standard
- - 24-hour Average Standard

Vertical bars indicate ranges of values for all cities; the highest horizontal mark shows the most polluted of the Chinese cities.

[1] In the Nitrogen Oxides chart, data for 2001 and 2002 are for NO_2 .

Table 8B.5. Ambient Air Quality in Chinese Cities (Annual Averages), 1980-2005

1. Total Suspended Particulates ($\mu\text{g}/\text{m}^3$)

	Major Cities Average ^[1]	Lowest City	Highest City	Southern Cities Average ^[1]	Northern Cities Average ^[1]	No. Cities	Remarks
1980	610			340	875		
1981	703	160	2,770	410	930		
1982	729	220	1,910	470	950		
1983	600	164	1,358	330	870		
1984	660	190	2,158	450	870		
1985	590	224	1,767	444	740		
1986	570	196	1,575	391	715		
1987	590	154	1,357	370	805		
1988	580	220	1,597	440	674		
1989	432	117	1,043	318	526		
1990	379	64	844	268	475		
1991	325	80	1,433	225	425	65	
1992	323	90	663	243	403	74	59 exceeded Class II standard
1993	329	108	815	251	407	74	63 exceeded Class II standard
1994	329	89	849	250	407		45 exceeded Class II standard
1995	317	55	732	242	392	87	70 exceeded Class II standard
1996	308	79	618	230	387	88	66 exceeded Class II standard
1997	287	32	741	200	374	93	67 exceeded Class II standard
1998	282	48	741	200	364	95	70 exceeded Class II standard
1999	259	75	665	179	339	97	59 exceeded Class II standard
2000	261	77	721	186	336	93	57 exceeded Class II standard
2001	277	69	1,055	187	368	78	54 exceeded Class II standard
2002	269	47	663	181	356	53	36 exceeded Class II standard
2003	275	78	683	174	337	61	37 exceeded Class II standard
2004	282	14	1,424	164	321	72	44 exceeded Class II standard

[1] Simple means, as reported by SEPA. "Major cities average" is simply the unweighted average of the means for northern and southern cities.

2. Sulfur Dioxide ($\mu\text{g}/\text{m}^3$)

	Major Cities Average ^[1]	Lowest City	Highest City	Southern Cities Average ^[1]	Northern Cities Average ^[1]	No. Cities	Remarks
1980	110			100	130		
1981	115	20	450	110	120		
1982	115	20	520	110	120		
1983	94	25	324	80	110		
1984	92	7	363	93	90		
1985	105	8	504	100	110		
1986	106	16	434	108	105		
1987	117	35	434	104	130		
1988	94	12	435	99	89		
1989	105	2	394	120	93		
1990	98	3	422	115	81		
1991	90	4	351	88	92	70	
1992	94	2	463	90	97	76	46 exceeded Class II standard
1993	98	8	451	96	100	77	48 exceeded Class II standard
1994	86	2	472	83	89	88	48 exceeded Class II standard
1995	81	2	424	80	81	88	51 exceeded Class II standard
1996	80	2	418	76	83	90	46 exceeded Class II standard
1997	66	3	248	60	72	94	41 exceeded Class II standard
1998	57	2	276	52	62	96	32 exceeded Class II standard
1999	56	1	272	50	61	97	31 exceeded Class II standard
2000	52	1	277	47	57	93	24 exceeded Class II standard
2001	52	2	244	45	58	97	24 exceeded Class II standard
2002	51	2	160	42	61	98	29 exceeded Class II standard
2003	66	2	267	50	82	113	50 exceeded Class II standard
2004	64	3	231	56	72	113	49 exceeded Class II standard
2005	57	5	177	50	63	113	50 exceeded Class II standard

[1] Simple means, as reported by SEPA. "Major cities average" is simply the unweighted average of the means for northern and southern cities.

Source: EB, China Environment Yearbook, various years; NEPA, 1994.

Table 8B.5. Ambient Air Quality in Chinese Cities (Annual Averages), 1980-2005 (continued)

3. Nitrogen Oxides ($\mu\text{g}/\text{m}^3$)

	Major Cities Average	Lowest City	Highest City	Southern Cities Average	Northern Cities Average	No. Cities	Remarks
1980	43			35	50		
1981	50	10	90	40	60		
1982	45	10	110	40	50		
1983	46	6	94	36	55		
1984	42	10	95	37	46		
1985	50	13	94	41	59		
1986	48	14	108	41	55		
1987	56	17	199	43	69		
1988	45	9	110	42	48		
1989	47	10	140	43	51		
1990	43	7	130	38	47		
1991	46	11	164	38	54	70	
1992	48	11	152	40	56	76	41 exceeded Class II standard
1993	50	10	147	40	59	77	45 exceeded Class II standard
1994	47	44	120	39	55	85	
1995	47	12	129	41	53	88	55 exceeded Class II standard
1996	46	5	152	40	51	90	53 exceeded Class II standard
1997	45	4	140	40	49	94	50 exceeded Class II standard
1998	45	8	151	41	49	96	53 exceeded Class II standard
1999	45	7	140	42	48	97	56 exceeded Class II standard
2000		30, 53 ^[2]	26, 71 ^[2]			53 ^[4]	2 exceeded Class II standard [4]
2001 ^[3]	35	11	71	32	37	97	35 exceeded Class II standard
2002 ^[3]	35	10	76	33	37	98	35 exceeded Class II standard
2003	37	11	72	35	40	112	46 exceeded Class II standard
2004	37	7	73	36	38	113	43 exceeded Class II standard
2005	35	4	68	34	36	112	38 exceeded Class II standard

[1] Simple means, as reported by SEPA. "Major cities average" is simply the unweighted average of the means for northern and southern cities.

[2] For 2000, the first number listed is NO_x for and the second number is for NO_2 .

[3] Data for 2001 and 2002 are for NO_2 ; prior to 2000 data are for NO_x .

[4] NO_x only.

Source: EB, China Environment Yearbook, various years; NEPA, 1994.

Table 8B.5. Ambient Air Quality in Chinese Cities (Annual Averages), 1980-2005 (continued)

4. Particulate Deposition Velocity (tonnes/km²*month)

	Major Cities Average	Lowest City	Highest City	Southern Cities Average	Northern Cities Average	No. Cities
1980	35.00			20.00	50.00	
1981	35.35	10.79	103.75	18.76	50.67	
1982	32.08	10.83	99.73	16.69	48.76	
1983	32.00	5.10	113.90	16.00	48.00	
1984	27.20	4.48	87.61	16.10	38.00	
1985	27.65	7.53	76.50	16.50	38.81	
1986	25.02	5.96	68.57	13.22	32.58	
1987	24.41	7.53	73.97	14.09	32.79	
1988	25.00	7.04	131.25	13.50	35.00	
1989	22.37	3.77	61.92	15.27	27.70	
1990	19.15	3.71	56.70	10.60	26.05	
1991	18.24	3.22	51.17	11.15	25.32	61
1992	19.09	3.84	55.75	12.09	26.08	67
1993	18.53	4.03	83.47	10.04	27.02	73
1994	17.67	3.20	64.61	10.57	24.76	84
1995	17.45	3.70	60.13	10.16	24.73	85
1996	16.22	3.33	52.68	9.21	23.22	88
1997	15.38	3.68	53.17	9.29	21.46	87
1998	14.82	3.31	66.32	8.57	21.06	91
1999	14.30	3.20	61.60	8.50	20.10	89
2000	14.15	2.60	38.40	8.80	19.50	87
2001	14.62	1.90	48.40	8.65	20.58	89
2002	13.73	2.10	51.30	7.40	20.05	113
2003	11.97	1.90	44.80	7.99	16.03	113
2004	12.45	3.00	41.90	8.21	16.86	106

[1] Simple means, as reported by SEPA. "Major cities average" is simply the unweighted average of the means for northern and southern cities.

5. Acidity of Precipitation (pH) [5]

	Major Cities Average	Lowest City		Highest City		No. Cities	Remarks
		Annual Average	Single Occurrence	Annual Average	Single Occurrence		
1992			3.85		7.43	58	30 below pH 5.6
1993			3.94		7.63	73	36 below pH 5.6
1994			3.84		7.54	77	37 below pH 5.6
1995			2.92		8.14		
1996		3.54	3.00	7.67	9.98	82	42 below pH 5.6
1997		3.74	3.01	7.79	12.03	92	44 below pH 5.6
1998		4.29	3.02	7.58	10.94	103	42 below pH 5.6
1999		4.30		7.47		106	43 below pH 5.6

[5] Incomplete series due to unavailable data after 1999.

Source: EB, China Environment Yearbook, various years; NEPA, 1994.

Table 8B.6. Ambient Total Suspended Particulate (TSP) Levels, Selected Cities, 1986-2004

Annual Averages, µg/m3

Standard	daily avg	max. at any time
Class I	80	300
Class II	200	1,000
Class III	300	1,500

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ⁽²⁾	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
North	Beijing				399			307	340	343		370	365	377	379	364	353	370		252	
		Tianjin	540	470	410	360	290	247 [250]	269 [250]	396 [320]	320	306	317	318	339	348	304	283	274	262	
	Hebei	Baoding							354 [388]	336 [318]		308	353	263	268	293	362	391	354		
		Cangzhou							323	428											
		Chengde							370	308											
		Handan							507	517											
		Langfang							108	202											
		Qinhuangdao				435		300	447	452 [376]		452	359	310	260	294	283	285	262		
		Shijiazhuang				617		308	419 [389]	311 [338]		308	312	326	349	366	431				
		Tangshan				800		407	372 [380]	413 [360]		331	336	344	352	331	352	348	327		
		Xingtai							417	426											
		Zhangjiakou							252	348											
	Shanxi	Changzhi	421	359	440	420	388	359	379											412	
		Datong	676	674	854	566	493	457 [508]	483 [548]	498		432	557	520	594	612	721	514	507	481	
		Linfen																	494		
		Jincheng	889	846	681	448	514	352	448												
		Taiyuan	860	920	1,041	760 [783]	574	627	641 [638]	599 [655]	599	568	515	504	523	416	401	311			
		Yangquan	872	808	1,153	600	555	552	452											580	
		Yuci	454	380	602	513	391	401	395												
		Yuncheng	1,180	760	562	262 [286]	423	269 [372]	437 [457]	208		290	262	288	359	278	216	425	459	345	
	Inner Mongolia	Baotou	204	281	357	665	810		525 [790]	481		485	484	445	458	443	380	395	381		
		Chifeng	834	838	851	505	841														
		Haier													295	251	238	256			
		Hohhot	1,333	1,501	1,304	660	402	331		404		410	443	448	461	507	451	448	411	395	353
		Tongliao																		285	
		Wuhai	840	588	721	693	380													611	564
		Wulanchabu																			234
Northeast	Liaoning	Anshan				520	540	506	322	288		305	433	393	391	415	418	382	256	282	295
		Benxi																			
		Changhai														116					198
		Chaoyang																			166
		Dandong																			
		Dalian ⁽¹⁾	149 420	139 430	137 440	143 400	159 330	139	134 [133]	156		185	217	143	166	146	88				
		Fushun																		240	241
		Huludao												343	288	261	218	303			
		Jinzhou																	300	280	
		Liaoyang																		199	
		Panjin																		182	
		Shenyang	534	646	593	460	455	358 [360]	398	425		374	422	369	332	304	265				170
		Yingkou																			
	Jilin	Baicheng																			135
		Baishan																			182
		Changchun			550	474	469	301 [374]	312 [388]	378		381	362	341	316	295	265	220	178	175	185
		Ji'an										269	196	173	163	139	217	191	155		
		Jilin			840 [792]	710	647		663	815		726	618	617	560	563	557	766	408	318	
		Liaoyuan																	301		
		Siping			347	404			242	408		400	377	314	308	274	245	341	430	242	262
		Songyuan																		167	
		Tumen			656		296		269	338		246	287	274	186	202	290	241	279	199	173
	Heilongjiang	Daqing			130	117 [120]		109	161	142		149	148	145	158	138	118	86			
		Harbin			540	480 [450]	490	373 [433]	345 [391]	409 [386]	379	359	342	310	269	260	242	219			
		Hegang			490	513 [440]		306	475	406		276	262	281	288	298	279	253			
		Qiqihar																		140	172
		Qitaihe										305	302	313	310	299	271	289	213	219	220
		Shuangyashan																			210
		Yichun										242	237	251	269	143	154	166	171	158	136

(continued)

Table 8B.6. Ambient Total Suspended Particulate (TSP) Levels, Selected Cities, 1986-2004 (continued)

Annual Averages, µg/m3

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ⁽²⁾	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
East	Shanghai			190		317	358	327 [284]	337	280 [250]		246	242	229	215	168	156	162	168	140	
	Jiangsu	Lianyungang													198	196	182	179			
		Nanjing	469	423	627	273	302	176 [202]	241	281		317	300	281	253	202	107				
		Nantong								229		214	210	219	210	215	108	209			
		Suzhou				315		307	268 [288]	285		285	232	220	205	142	152				
		Xuzhou				443		286	474 [492]	380		351	356	399	353	356	323	343			
	Zhenjiang						209	268 [489]													
	Zhejiang	Hangzhou	166	154	199	159	169	306	234	251		265	265	262	205	185	141	166		157	
		Huzhou		521	397	338	219	261													
		Jiaxing	453	471	344	350 [345]	406	323												96	
		Jinhua	270	228	239	198	158	146												173	
		Ningbo	272	321	334	152	147	192				186	193	134	120	132	154	87			
		Quzhou																		135	
		Shaoxing	258	306	353	169	187	174													
		Wenzhou	304	330	353	280	233	207	309	168		106	193	134	122	121	149				
	Anhui	Anqing	240	240	220	154 [160]	130	193 [210]	198 [209]	164 [170]		192	160	135	138	137	119				
		Bengbu	260	340	320	240	260	223	204	152											
		Hefei	450	360		158 [240]	140	260 [129]	153 [167]	137 [141]		141	122	103	131	148	170				
		Huabei	700	600	940	550	450	475	426	419											
		Huainan	550	580	660	330	260	310	420	387											
		Huangshan						501	120	120										130	
		Ma'anshan	510	370	420	520	340	316	258	227											
		Tongling	580	250	340	280	250	240	361	350										262	
		Wuhu	980	950	440	260	260	441	420	166											
	Fujian	Fuzhou				216		187	264	215		188	154	163	141	129	113	113			
		Sanming				245		251	351			316	301	359	246	220	213	219			
Xiamen					283		99 [95]	90 [91]			100	79	79	74	77	84					
Jiangxi	Ganzhou	348	563	687	428	163	95	103	118 [90]		83	109	84	62	87	116	115	80	106		
	Jingdezhen	510	565	540	505	287	205	212	124 [140]		261	189	195	295	181	180	198	121	175		
	Jiujiang	308	298	427	286	216	216	215	273 [250]		132	124	159	200	192	268	227	176	140		
	Nanchang	414	377	437	274	188	137 [136]	191	200		279	207	178	174	176	180	179				
	Pingxiang	558	818	971	759	603	313	262	290		276	372	275	288	273	254	329	313	361		
	Xinyu	369	200	263	250	244	305		390												
Yingtian																		168			
Shandong	Changdao														108	94					
	Jinan				590		624	642	594		472	474	420	361	318	173					
	Qingdao	600	428	469	369	377		177		321	453	269	224	211	191	143					
	Zibo				564		465	407	471		453	456	372	389	315	219					

(continued)

Table 8B.6. Ambient Total Suspended Particulate (TSP) Levels, Selected Cities, 1986-2004 (continued)

Annual Averages, µg/m3

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ⁽²⁾	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
South-Central	Henan	Anyang				360		528	447	403		505	571	633	452	462	496	299	327	285	
		Jiaozuo										556	536	496	445	462	498	422	456	441	
		Kaifeng										264	447	439	361	428	320	334	337	294	
		Luoyang				686				365		470	452	322	401	374	354	402	346	387	
		Pingdingshan				537		411	433	336		408	302	478	463	415	398	276	333	354	
		Zhengzhou	640	688	680	608 [680]	515	440	421	418		474	469	459	424	360	291	191	250	215	
	Hubei	E'zhou										211	195	241	258	259	253			167	
		Wuhan	349	333	358	320	212 [280]	217 [280]	264	238	261	211	195	241	258	259	253				
		Xiangfan			686	407	358	250 [336]	272	269		258	271	265	275	269	252	292	315		
		Yichang			410	141	130	274 [263]	307	414		513	271	238	267	219	244	274	262		
	Hunan	Changsha				449		206	222	203		249	237	226	228	203	179	185			
		Hengyang				292		189	202	165		218	203	208	211	214	201	191	170	149	
		Huaihua								228		318	586	198	195	159	172	172	160		
		Zhuzhou												224	250	270	250	267	205		
	Guangdong	Guangzhou	230	230	290	277	270	260	297 [277]	264 [280]		295	265	217	205	182	185	151	162		
		Shantou				230	170	220	210												
		Shenzhen			200	198	119	161	206 [147]	153	143	134	136	100	94	90	91	122			
		Zhanjiang							225			217	155	143	107	117	93	104			
		Zhuhai			390	190	100	185	109							147	119	112			
	Guangxi	Beihai						94	198	254										195	184
		Baise																			
		Bose						104 [125]	141 [149]	128 [124]		166	199	163	141	115	167	180	174		
		Fangchenggang																			118
		Guigang																			
		Gulin	441	450	260	170 [190]	210	184 [200]	159 [157]	210	146	164	142	146	114	146	139	109			195
		Hechi										183	208	160	225	188	225	167	151	261	199
		Hezhou																			190
		Liuzhou				314	219	203	237	238										206	227
		Nanning				182 [276]	198	181 [191]	188 [192]	227 [210]		200	196	146	160	170	162				
		Qinzhou																			157
		Wuzhou	290	240	370	340	160	192	104	253		174	175	131	200	162	161	151	137	156	
	Hainan	Haikou						80	99	108 [115]		55	91	72	75	75	77				
		Sanya						100		113											
		Wuzhishan																			14
Southwest	Sichuan	Chengdu	360	330	420	320	320	341 [350]	372 [398]	300 [290]	320	366	277	248	243	231	198	214			
		Dachuan						1,080	1,480	1,014											
		Leshan								274		214	184	171	167	162	165	175			
		Nanchong				916		362 [440]	284 [310]	269 [250]		248	250	218	219	215	263	207			
		Xichang						350	240	279											
		Yibin				412		248 [270]	272 [295]	279 [260]		328	296	340	249	246	290	213			
		Zigong								325		223	268	264	226	192	310	315			
	Chongqing	Chongqing	660	620	600	428 [430]	490	376 [400]	351 [380]	262	340	322	181	200	316	204	261				
		Wanxian								721		543	618	529							
	Guizhou	Anshun				244	178	167	184												122
		Chishui																			101
		Duyun				370	160	236	263												123
		Guiyang	574	465	470	418 [385]	407	331 [333]	392 [516]	304		330	312	216	236	221	209	211			
		Kaili																			116
		Liupanshui				280	352	324 [321]	415 [422]	275		408	296	221	165	181	211	202	208	170	201
		Tongren																			200
		Xingyi																			173
		Zunyi				1,228	586	569	1,382											231	
	Yunnan	Gejiu				144	150	106	134	148		140	110	151	199	197	161	141	119		
		Kunming				438	420	337	331	337		253	246	278	242	186	152	143		129	
		Lijiang														113			47	78	
		Dali																		95	
	Xizang	Changdu												32	285						199
		Lhasa										328	317	243	446	320	266	244	240	300	267

(continued)

Table 8B.6. Ambient Total Suspended Particulate (TSP) Levels, Selected Cities, 1986-2004 (continued)

Annual Averages, µg/m3

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[2]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Northwest	Shaanxi	Ankang																			287
		Baoji				482		721	428	315		419	408	363	411	399	365	373	380		
		Hanzhong				588		374	345	261		506	214	257	361	494	238	203	190	182	
		Shamenxia																		394	
		Shangluo																		277	292
		Xi'an				300		523	504	378		370	316	385	428	372	351	262			
		Yan'an				1,043		1,433	509	390		424	536	509	491	400	545	422	431		
	Gansu	Yulin																			258
		Dingxi																			297
		Hezuo																			274
		Jiayuguan				280 [290]	360	431	368	411		381	471	474	292	254		335	301		
		Jiuquan																			207
		Lanzhou				670 [710]	950		539	574		732	595	741	632	655	668	892	663		
		Linxia																			312
		Baiyin																		519	451
		Pingliang																			285
		Qingyang																			279
		Tianshui																		320	329
		Wuwei																			322
		Zhangye																			269
	Qinghai	Golmud															433	563	1,055	542	515
		Xining			866	570 [685]	598	335 [336]	415 [414]	518		444	534	456	507	489	433		476	486	472
	Ningxia	Guyuan				318	809	428	423			386	399	442	741	295	379	442	475	683	
		Shizuishan				168 [185]	177	130 [135]	188 [219]												
		Wuzhong																			449
		Yinchuan				390 [392]	581	461	481 [470]	469		242	215	482	329	413	342	350	353	354	406
	Xinjiang	Zhongwei																			
		Aksu																			817
		Altay																			110
		Artux																			550
		Bole																			217
		Changji																			209
		Hami												436	346	381	325	358	333	307	291
		Hetian																			1,424
		Kashi																			806
		Korla																			482
		Kuytun																			261
		Shihezi																		162	
		Tacheng																			200
		Turpan																		357	508
		Urumqi	615	457	530	507 [518]	707	433	424	538		515	496	481	504	463	501	501	464		
		Yining																			327

N.B. Province averages are averages of major urban areas. On occasion conflicting data are presented for a single year. In such cases, the data from the more recent source and from tables comparing several cities are preferred. In some cases figures reported by national and local authorities differ. In such cases the figures from local government reports appear in square brackets, i.e., "national [local]".

[1] Between 1986 and 1990 results of air quality monitoring in Dalian were reported for both automatic and chemical analysis. For those years the data are reported as "automatic | chemical".

[2] Ambient pollution levels for most cities were not published for 1994.

Source: EB, China Environment Yearbook, various years.

Table 8B.7. Ambient Sulfur Dioxide Levels, Selected Cities, 1986-2005

Annual Averages, µg/m3

Standard	annual avg	daily avg
Class I	20	50
Class II	60	150
Class III	100	250

	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^(a)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
North	Beijing					99		122	117	140		94	99	124	119	80	71	64	68	61	55	50
	Tianjin		190	170	190	125 [130]	100	142 [140]	199 [180]	161 [140]	90	82	94	75	82	68	56	76	69	74	73	76
	Hebei	Baoding							138 [158]	182 [150]		52	82	53	47	27	29	50	54	125	69	56
		Cangzhou							15	29												
		Chengde							230	186												
		Handan							97	153										201	121	65
		Langfang							20	51												
		Qinhuangdao				55	45		41	59 [48]		64	59	66	51	40	38	36	46	40	54	57
		Shijiazhuang				269		162	121 [154]	175 [158]		129	122	118	116	129	169	244	160	152	87	54
		Tangshan				122		86	97 [98]	157 [133]		95	85	76	63	63	84	97	99	91	88	86
		Xingtai							64	59												
		Zhangjiakou							74	76												
	Shanxi	Changzhi	62	31	42	37	42	39	38											76	93	67
		Datong	157	129	182	258	184	134 [155]	179	185 [150]		192	201	165	117	151	172	151	152	195	149	101
		Jincheng	56	75	45	45	41	33	56													
		Linfen																		267	224	177
		Taiyuan	261	226	247	394 [409]	265	277 [274]	303 [284]	153 [212]	174	211	204	248	276	272	200	153	129	99	87	77
		Yangquan	113	148	123	145	146	144	203											250	231	160
		Yuci	184	162	165	298	189	205	251													
		Yuncheng	86	174	111	96 [98]	90	89 [94]	132 [137]	65		124	115	100	139	135	87	85	149			
	Inner Mongolia	Baotou	120	177	146	126	140	142	119	136		110	106	102	100	87	87	73	67	81	78	70
		Chifeng	90	151	112	75	59													102	99	87
		Hailar																				
		Hohhot	83	106	78	92 [88]	40	35		121		93	11	102	63	48	34	37	36	39	45	50
		Wuhai	167	111	103	151	143															
Northeast	Liaoning	Anshan				100	80	104	125	115		115	107	93	79	98	76	73	57	79	87	78
		Benxi																		60	64	89
		Changhai														5						
		Dalian ⁽¹⁾	66 [60]	69 [60]	88 [60]	84 [54]	94 [38]	75 [74]	79 [82]	78		61	65	56	49	38	17	31	35	39	38	44
		Fushun																		29	35	55
		Huludao													54	25	32	27	90	104		
		Jinzhou																		48	50	62
		Shenyang	159	143	100	146	117	137 [120]	131	117		105	108	82	71	72	62	71	64	52	52	54
	Jilin	Changchun				54 [53]	56	61 [52]	61 [62]	74 [63]		21	22	21	19	16	12	15	9	12	13	26
		Jian										31	33	33	20	27	35	47				
		Jilin				67 [98]	110	75	89	95		92	75	64	80	85	67	48	42	31	28	14
		Qiqihar				88	35		36	62		74	48	35	34	61	58	57	52			
		Siping				23		28	41	22		28	45	30	32	26	16	25	25			
		Tumen																				
	Heilongjiang	Daqing			7	8		15 [30]	10	14		11	13	18	4	5	8	13	11			
		Harbin	48	40 [45]				27 [33]	29 [32]	22 [30]	26	23	25	26	23	35	29	39	42	43	42	42
		Hegang	16	15 [11]				13	11	9		11	15	14	12	15	12	14	41			
		Mudanjiang																		50	27	34
		Qiqihar																		24	19	25
		Qitaihe										29	28	28	28	28	24	25	24			
		Yichun										5	13	14	9	4	5	5	4			

(continued)

Table 8B.7. Ambient Sulfur Dioxide Levels, Selected Cities, 1986-2005 (continued)

Annual Averages, µg/m3

	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^(a)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
East	Shanghai					98	95	99 [52]	98	91 [50]		53	54	68	52	44	46	43	36	43	55	61
	Jiangsu	Changzhou																		30	24	41
		Lianyungang												30	18	18	17	36	35	41	44	49
		Nanjing	88	80	83	65	74	50 [62]	73 [65]	49		62	55	55	48	34	29	31	36	30	45	52
		Nantong								50		46	38	34	28	32	49	37	41	41	42	43
		Suzhou				77		65	64 [69]	63		71	63	46	45	43	45	46	44	30	42	40
		Wuxi																		59	75	69
		Xuzhou				71 [70]		81	76 [83]	17		19	21	23	30	36	26	35	62	80	77	66
		Yangzhou																		41	54	44
		Zhenjiang						37	39 [86]											36	48	33
	Zhejiang	Hangzhou	107	104	105	97	123	122 [119]	107	121		68	67	67	57	49	44	52	51	49	49	60
		Huzhou	90	74	81	71	68	68												37	26	30
		Jiaxing	43	64	58	50	65	65														
		Jinhua	46	61	60	52	39	36														
		Ningbo	52	63	59	30	34	43				27	17	16	15	21	15	27	21	41	44	47
		Shaoxing	37	51	59	71	64	58												63	55	44
		Wenzhou	81	103	83	51	50	61 [60]	38	39		37	26	18	26	25	29	49	55	59	53	47
	Anhui	Anqing	40	30	30	26 [30]	20	21 [22]	21 [26]	25		21	15	11	10	8	6	5	2			
		Bengbu	30	40	40	20	40	49	37	23												
		Hefei	60	40		55 [50]	48	46 [32]	41 [40]	40 [44]		50	48	46	46	20	13	12	10	12	13	18
		HuaiBei	20	20	30	20	20	21	20	22												
		Huainan	50	50	30	20	30	31	36	42												
		Huangshan						24	17	20												
		Ma'anshan	20	20	10	10	20	18	20	22										20	19	22
		Tongling	80	40	70	90	90	95	126	87												
		Wuhu	60	70	40	30	20	34	52	48										12	17	23
	Fujian	Fuzhou				86		82	72	67		26	28	29	22	15	14	25	15	8	10	16
		Quanzhou																		26	25	26
		Sanming				48		25	38			42	24	32	41	28	19	24	32			
		Xiamen				67		8 [7]	7 [5]			11	9	8	24	30	20	24	24	24	25	25
	Jiangxi	Ganzhou	99	100	84	57	43	44	40	48 [38]		32	36	40	19	25	31	37	37			
		Jingdezhen	111	61	59	72	45	50	54	80 [84]		60	37	32	26	25	35	28	15			
		Jiujiang	53	40	51	86	89	82	99	115 [114]		86	87	85	61	76	39	90	42	33	89	70
		Nanchang	45	60	64	72	43	41 [40]	65	74 [67]		69	84	57	45	48	39	29	63	51	57	50
		Pingxiang	101	25	50	54	36	65	67	54		75	65	36	45	46	31		8			
		Xinyu	47	24	21	19	19	18		41												
	Shandong	Changdao													18	11						
		Jinan				117		135		216 [226]		132	160	173	141	102	59	58	55	64	45	60
		Jining																		53	63	46
		Qingdao	260	278	274	263 [266]	229	204		215 [207]	204	190	179	147	126	93	55	52	54	55	56	57
		Rizhao																		19	24	21
		Tai'an																		59	51	48
		Weifang																		51	56	58
		Yantai																		48	54	44
		Zaozhuang																		40	44	60
		Zibo				147		121		121 [142]		198	212	161	142	119	71	64	61	61	56	53

(continued)

Table 8B.7. Ambient Sulfur Dioxide Levels, Selected Cities, 1986-2005 (continued)

Annual Averages, µg/m3

Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[2]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
South-Central	Henan				50		79	94	95		83	105	31	40	32	32	87	89	105	94	75
	Jiaozuo										67	87	50	32	26	33	45	79	108	127	76
	Kaifeng										45	42	42	33	39	37	32	79	75	72	59
	Luoyang				105			110	155		176	183	107	82	81	64	59	101	101	93	65
	Pingdingshan				38		43	34	49		42	23	22	12	14	13	40	55	66	70	67
	Sanmenxia																	169	132	68	
	Zhengzhou	74	79	86	65 [80]	67	86	90	67		63	6	53	51	65	39	36	49	50	57	59
	Hubei																		39	53	38
	Wuhan	54	48	43	48	44	40 [44]	40 [44]	38	37	40	43	42	44	39	37	42	45	49	48	54
	Xiangfan			44	37	42	40 [41]	38	40		49	51	25	14	14	11	13	34			
	Yichang			192	177	246	165 [227]	128	165		216	108	65	42	37	24	33	52	118	120	49
	Hunan																		64	55	77
	Changde																		81	84	81
	Changsha				186		173	180	79		113	125	111	130	116	116	131	97			
	Hengyang				88		62	68	73		125	76	93	27	32	39	68	61			
	Huaihua								79		72	81	29	50	55	55	56	74			
	Xiangtan																		76	67	88
	Yueyang																		61	53	73
	Zhangjiajie																		62	63	67
	Zhuzhou												101	139	137	146	143	130	144	123	90
	Guangdong																				
	Guangzhou	90	80	90	100	91	70 [71]	60 [59]	48 [47]	59	57	65	70	61	54	49	52	57	59	77	53
	Shantou				10	12	36	35										19	31	31	35
	Shaoguan																		65	64	47
	Shenzhen			20	10 [16]	9	16 [15]	16 [15]	26 [7]	6	15	10	9	9	14	25	28	18	20	24	21
	Zhanjiang								34		32	21	21	16	11	18	10	19	17	12	13
	Zhuhai	<10	10	10	20	10	12	17						23	34	31	33	27	24	24	18
	Guangxi																		8	5	5
	Beihai						14	34	18												
	Bose						45 [55]	46 [86]	32 [28]		40	39	46	35	32	28	39	37			
	Guilin	93	106	124	138 [144]	107	85 [100]	70 [72]	76	24	26	24	21	19	17	11	10	25	35	35	36
	Hechi								204		125	107	117	134	125	208	221	133			
	Luzhou	263	226	291	211	204	172	216	212										70	109	72
	Nanning	114	68	60	62	56	50 [54]	86 [85]	74 [78]		70	39	34	37	35	34	52	52	47	61	58
	Wuzhou	84	116	53	190	130	109	134	142		141	144	138	83	59	47	57	47			
	Hainan																				
	Haikou				2		4		8 [6]		5	2	5	4	8	7	9	8	9	7	12
	Sanya						10		10												
Southwest	Sichuan																				
	Chengdu	70	80	70	82	70	66 [70]	75 [82]	57 [60]	66	77	70	60	60	55	47	49	51	52	67	77
	Dachuan						80	100	67												
	Deyang																		65	83	88
	Leshan								89		62	60	54	51	41	27	15	16			
	Luzhou																		65	68	76
	Mianyang																		60	73	61
	Nanchong				346		239 [290]	242 [300]	244 [200]		134	145	125	106	93	125	43	40	49	51	66
	Panzhihua																		44	54	60
	Xichang						40	30	33												
	Yibin				348		305 [420]	287 [380]	307 [290]		205	218	216	175	158	165	103	121	109	155	127
	Zigong								129		116	131	145	119	96	82	52	60	54	50	37
	Chongqing																				
	Chongqing	460	430	360	338 [340]	340	351 [380]	351 [380]	266	330	338	321	208	183	170	120	108	91	115	113	73
	Wanxian								70		70	59	74								
	Guizhou																				
	Anshun				371	228	290	402													
	Duyun				147	220	230	456													
	Guiyang	465	439	374	372 [330]	353	341	463 [475]	451		424	418	179	178	171	161	122	98	89	94	63
	Liupanshui				60 [59]	67	46	55 [54]	86		102	95	86	54	48	17	12	14			
	Zunyi				231	131	183	304											125	135	96
	Yunnan																				
	Geju				145	114	41	31	55		35	37	30	19	19	23		19			
	Kunming				55	520	45	50	72		19	31	36	38	17	21	29	28	45	69	55
	Lijiang														30		17	5			
	Qujing																		58	84	68
	Yuxi																		30	34	44
	Xizang																				
	Changdu																				
	Lhasa							2			2	9	5	5							
	Rikaze											3	2	2	1	1	2	3	2	3	10

(continued)

Table 8B.7. Ambient Sulfur Dioxide Levels, Selected Cities, 1986-2005 (continued)

Annual Averages, µg/m3

Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[1]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Northwest Shaanxi	Baoji				29		54	39	26		48	42	40	41	38	37	43	53	63	45	40
	Hanzhong				58		50	61	49		49	24	29	41	40	31	25	33			
	Tongchuan																		96	62	67
	Weinan																		104	81	83
	Xi'an				51		68	58	52		60	66	91	55	52	41	28	24	57	49	44
	Xianyang																		127	52	33
	Yan'an				41		60	44	48		92	90	84	44	31	27	31	32	48	53	60
Gansu	Jiayuguan													5	4		14	19			
	Jinchang																		208	198	120
	Lanzhou				62	84	102	79	94		102	89	72	62	66	60	67	93	86	71	68
	Tianshui				59	46			49		36	26	30								
Qinghai	Golmud															230	277	114	55		
	Xining			47	46 [47]	66	51	46	54		46	44	38	10	8	12	23	25	31	24	29
Ningxia	Guyuan				40			28													
	Shizuishan				75 [192]	106	104	209 [165]			123	189	146	145	102	120	139	137	142	90	87
	Yinchuan				19	53	56	68 [70]	43		85	56	105	83	90	57	5	37	63	54	54
Xinjiang	Hami												19	22	19	13	13	8			
	Karamay																		4	7	8
	Urumqi	120	128	158	201 [207]	222	207	301	210		60	73	68	104	146	134	139	116	97	102	116

N.B. Province averages are averages of major urban areas. On occasion conflicting data are presented for a single year. In such cases, the data from the more recent source and from tables comparing several cities are preferred. In some cases figures reported by national and local authorities differ. In such cases the figures from local government reports appear in square brackets, i.e., "national [local]".

[1] Between 1986 and 1990 results of air quality monitoring in Dalian were reported for both automatic and chemical analysis. For those years the data are reported as "automatic | chemical".

[2] Ambient pollution levels for most cities were not published for 1994.

Source: EB, China Environment Yearbook, various years.

Table 8B.8. Ambient Nitrogen Oxide Levels, Selected Cities, 1986-2005

Annual Averages, µg/m3

Standard	annual avg	daily avg
Class I	40	80
Class II	40	80
Class III	80	120

	Province	City	NO _x															NO ₂						
			1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[2]	1995	1996	1997	1998	1999	2000	2000 ^[3]	2001	2002	2003	2004	2005	
North	Beijing					83		97	102	97		123	117	133	151	140	126	71	71	76	76	71	66	
	Tianjin		60	60	70	52 [40]	40	48	51		70	70	50	49	49	53	55	53	45	53	46	52	52	47
	Hebei	Baoding								39	48 [44]		18	18	13	13	24			51	47	45	36	28
		Cangzhou									22													
		Chengde									32													
		Handan									56												28	39
		Langfang									37													
		Qinhuangdao					38		37	35	42 [36]		48	64	59	54	57	69	46	44	24	25	23	25
		Shijiazhuang					61		43	48 [53]	64 [60]		61	48	48	54	75	90	57	68	56	44	42	41
		Tangshan					57		43		75 [59]		66	64	59	62	59			47	44	39	41	40
		Xingtai									82													
	Zhangjiakou									38														
	Shanxi	Changzhi					50	48	34	51												49	56	39
		Datong					44	45	49 [58]	36 [42]	37		43	39	34	32	45	41		44	35	49	50	38
		Jincheng					40	35	45	41														
		Linfen																				50	55	54
		Taiyuan					65 [68]	69	80	92	58		55	50	57	66	101	93		44	37	31	22	20
		Yangquan					43	64	81	81												51	55	53
		Yuci					20 [36]	34	48	49														
		Yuncheng					21	26	26 [28]	50 [54]	39		34	34	38	47	52	41		35	38			
	Inner Mongolia	Baotou		40	78	64	52	52	71	80	73		69	50	52	45	48	51		43	38	38	39	36
		Chifeng		51	34	45	42	32														36	33	23
		Hailar																						
		Hohhot		101	49	57	22	22	32		40		32	34	52	59	44		31	20	41	46	38	41
		Wuhai		48	26	31	30	34																
Northeast	Liaoning	Anshan					58	70	80	84	70		88	85	72	76	75	64		48	36	40	33	38
		Benxi																				39	34	41
		Changhai															7							
		Dalian ^[1]	67[60]	76[60]	78[60]	89[65]	89[71]	101 [102]	102 [103]	111		100	72	53	40	46	35		26	23	30	36	32	
		Fushun																				33	39	35
		Huludao													27	27	29	13		34	37			
		Jinzhou																				32	35	
		Shenyang	69	62	61	60	81	91	76	80		74	75	73	66	65	35		50	45	36	35	36	
	Jilin	Changchun					56 [50]	32	29 [35]	71 [74]	81 [71]		64	64	53	46	43		28	24	22	22	32	35
		J'an											32	33	33	20	27		40	38	27			
		Jilin					57		59	57	70		69	65	60	81	68		63	47	37	31	29	34
		Sping								45	58		65	48	35	34	61		39	34	47			
		Tumen					35		30	40	49		28	45	30	32	26		28	30	27			
	Heilongjiang	Daqing					23		27	28	26		30	29	27	20	27	26		19	19			
		Harbin					56 [61]		40	55	71		30	34	43	45	48		22	49	54	65	60	56
		Hegang					36		21	27	33		25	24	23	23	33	22		30	32			
		Mudanjiang																				48	31	35
		Qiqihar																				40	35	25
		Qitaihe											28	25	26	27	26	26		27	25			
		Yichun											35	50	59	50	31	34		20	26			

(continued)

Table 8B.8. Ambient Nitrogen Oxide Levels, Selected Cities, 1986-2005 (continued)

Annual Averages, µg/m³

	Province	City	NO _x																NO ₂						
			1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[2]	1995	1996	1997	1998	1999	2000	2000 ^[3]	2001	2002	2003	2004	2005		
East	Shanghai					59		63	70	75		75	87	105	100	100	91	61	62	58	57	62	61		
	Jiangsu	Changzhou							57												26	27	33		
		Huaiyin							50																
		Lianyungang							34					26	30	32	31	25	21	21	17	20	24		
		Nanjing						57	50	50		49	50	51	53	51	48	37	34	38	49	55	54		
		Nantong						24	26 [31]	27		34	30	33	33	33		27	33	30	33	41			
		Suzhou				50		48	46 [48]	48		49	50	37	40	43	69	54	46	42	42	51	43		
		Wuxi							65												45	42	38		
		Xuzhou				62		67	59 [63]			65	67	71	74	65	44		43	42	47	42	40		
		Yancheng							32																
		Yangzhou							50													34	23		
		Zhenjiang						13	18 [60]												30	39	20		
	Zhejiang	Hangzhou	65	60	59	49	62	54	66	71		54	71	66	75	72		46	53	52	56	55	58		
		Huzhou	33	34	38	33	33														51	54	42		
		Jiaxing	46	32	26	39	37																		
		Jinhua	25	20	14	21	18																		
		Ningbo	25	24	19	12	23					33	36	36	34	42		35	37	56	58	60	66		
		Shaoxing	37	42	32	25	20														53	44	40		
		Wenzhou	41	40	37	31	29	37	40	35		40	40	43	49	45		42	50	53	59	62	59		
	Anhui	Anqing	40	40	30	33 [30]	20	37 [40]	38 [41]	34 [33]		23	32	26	24	32	24		11	17					
		Bengbu	40	60	40	50	50	73	56	44															
		Hefei	70	40		58 [60]		36	36 [37]	31 [34]		53	50	39	60	55		46	32	29	25	17	25		
		Huabei	40	40	30	30	20	116	35	41															
		Huainan	40	50	50	40	50	44	44	43															
		Huangshan					24	7	8																
		Ma'anshan	30	40	30	40	20	19	30	28											37	24	27		
		Tongling	30	30	20	30	30	31	29	29															
		Wuhu	20	30	20	50	40	29	17	30											16	29	25		
	Fujian	Fuzhou				36		32	28	33		41	39	43	39	36	39		45	39	34	41	42		
		Quanzhou																			17	18	18		
		Sanming				44		32	38			42	38	37	36	38	30		31	28					
		Xiamen				10		11	14			12	22	26	34	30	21		23	30	37	38	45		
	Jiangxi	Ganzhou	25	22	24	19	25	16	17	14 [12]		14	10	14	9	16	22		25	26					
		Jingdezhen	47	41	37	34	62	52	46	35 [40]		49	43	43	41	47	33		30	25					
		Jiujiang	27	28	24	19	17	28	24	23		29	34	31	26	30	33		39	42	38	43	37		
		Nanchang	36	27	23	34	28	25	22	27 [30]		29	26	32	39	40	43		23	33	34	29	31		
		Pingxiang	39	47	44	44	37	40	51	43		43	40	38	34	33	31		28	38					
		Xinyu	36	21	21	39	27	20		22															
	Shandong	Changdao													32	25									
		Jinan				41		52	74	65		45	48	82	51	49			37	40	46	38	24		
		Jining																			46	46	37		
		Tai'an																			40	40	27		
		Qingdao	59	49	57	50 [51]	49	41	51	55		64	61	64	64	52	34	25	23	26	23	24	24		
		Rizhao																			25	26	27		
		Weifang																			28	32	42		
		Yantai																			34	32	29		
		Zaozhuang																			26	25	25		
		Zibo				28		25	35	37		43	44	46	59	49			26	24	27	25	29		

(continued)

(continued)

Table 8B.8. Ambient Nitrogen Oxide Levels, Selected Cities, 1986-2005 (continued)

Annual Averages, µg/m3

	Province	City	NO _x														NO ₂						
			1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[2]	1995	1996	1997	1998	1999	2000	2000 ^[3]	2001	2002	2003	2004	2005
South Central	Henan	Anyang				38		60	61	65		74	77	65	74	68			48	49	47	49	41
		Jiaozuo										45	52	46	66	66			51	53	54	56	36
		Kaifeng										51	49	46	34	40			38	43	42	50	45
		Luoyang				58			66	56		46	52	42	49	52			42	60	56	37	42
		Pingdingshan				37		36	32	36		42	43	50	51	47			40	41	44	48	43
		Sanmenxia																			34	31	29
		Zhengzhou	45	58	119	140 [150]	90	114	129	91		95	77	75	61	60			37	26	33	37	39
	Hubei	Jingzhou																			24	27	22
		Wuhan	52	54	58	59	56	49	56	71		43	76	86	94	88		49	50	52	52	54	50
		Xiangfan				38		31	34	37		42	35	33	29	35			35	34			
		Yichang				30		32	35	40		62	41	43	33	31			29	35	45	47	39
	Hunan	Changde																			31	23	15
		Changsha				50		37	36	33		41	41	39	43	52	44		43	40		38	33
		Hengyang				38		25	28	24		28	25	27	31	49	43		40	45			
		Huaihua						11	20	16		17	25	18	17	22	26		26	30			
		Xiangtan																			40	38	40
		Yueyuan																			30	31	33
		Zhangjiajie																			20	24	25
		Zhuzhou												43	40	48	32		30	41	43	35	27
	Guangdong	Guangzhou	100	110	110	133	147	103 [111]	107	109 [116]		129	152	140	124	113	118	68	71	64	72	73	68
		Shaoguan																			27	31	27
		Shantou				23		33	35												33	42	41
		Shenzhen			60	50 [71]	85	69 [108]	73 [118]	85	67	60	64	60	61	52	60	54	58	50	57	72	39
		Zhanjiang								14		21	27	39	40	23	17	15	12	13	14	12	13
		Zhuhai	20	20	40	40	40	45	48						48	61	48	35	36	40	36	34	33
	Guangxi	Beihai						21	26	36										10	12	7	4
		Bose						38 [46]	26	17 [15]		21	19	21	18	14			21	15			
		Guilin	20	24	18	24	27	23 [25]	26 [24]	24		16	24	21	19	20		24	17	28	27	27	32
		Hechi								21		17	7	7	10	7			18	21			
		Nanning	16	18	21	14 [13]	12	11 [12]	11 [12]	10		13	27	27	27	26	27	26	27	32	32	34	38
		Liuzhou	56	53	60	35	46	39	49	44											29	36	32
		Wuzhou	24	31	30	30	30	25	28	31 [32]		51	43	35	30	25			25	27			
	Hainan	Haikou				19		12 [11]	19	15 [14]		16	14	13	17	13		12	12	13	13	13	15
		Sanya						14		18													
Southwest	Sichuan	Chengdu	50	60	50	58	50	56 [60]	65 [72]	69 [70]	70	74	68	50	51	47		37	40	46	46	48	52
		Dachuan						80	20														
		Deyang																			28		22
		Leshan								51		46	40	59	50	57		37		32			
		Luzhou																			28	25	29
		Mianyang																			25	25	22
		Nanchong				41		58 [60]	36 [40]	41 [40]		46	40	56	25	60		44	21	22	23	27	27
		Panzhihua																		31	36	45	
		Xichang						20	33	29													
		Yibin				63		41 [50]	47 [60]	48 [50]		63	54	52	59	61		67	43	41	37	44	42
		Zigong								42		32	35	42	47	45		35	35	32	33	41	26
	Chongqing	Chongqing	80	80	70	58 [60]	60	59 [70]	65 [80]	53 [60]		69	40	67	56	62		44	44	38	46	67	48
		Wanxian								63		49	78	66									
	Guizhou	Guiyang	47	44	34	33 [29]		34	52	40		53	56	37	35	39	32		26	22	19	24	13
		Liupanshui				23		30	29	50		54	53	77	61	40	23		15	21			
		Zunyi																			32	27	22
	Yunnan	Gejiu				15	18	13	16	15		15	13	15	13	15			14	13			
		Kunming				52	44	38	32	50		33	34	39	43	39			31	37	33	40	38
		Lijiang																		10			
		Qujing																				18	23
		Yuxi																			11	11	12
	Xizang	Changdu															4						
		Lhasa							11			15	16	18	36	39	25		24	28	29	20	25
		Rikaze											7	4	8								

(continued)

Table 8B.8. Ambient Nitrogen Oxide Levels, Selected Cities, 1986-2005 (continued)

Annual Averages, µg/m3

	Province	City	NO _x														NO ₂						
			1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[2]	1995	1996	1997	1998	1999	2000	2000 ^[3]	2001	2002	2003	2004	2005
Northwest	Shaanxi	Baoji				34		61	40	37		40	47	44	54	45	50		37	41	34	34	46
		Hanzhong				19		23	29	25		24	28	23	28	28	29		30	30			
		Tongchuan																			40	30	41
		Weinan																			43	43	46
		X'an				48		51	51	49		56	53	54	50	44	40		20	19	35	33	32
		Xianyang																			48	40	25
		Yan'an				44		34	38	32		68	49	46	36	35	37		32	41	52	47	37
	Gansu	Jiayuguan				12 [20]		15	18	30		17	15	20	15	18			15	13			
		Jinchang																			22	20	23
		Lanzhou				88 [182]			72	99		104	74	65	65	61		53	47	56	50	45	37
	Qinghai	Golmud																	23	18			
		Xining				61		42	42	54		48	42	37	11	13	37		29	26			
	Ningxia	Guyuan				21	18																
		Shizuishan				24 [27]	31	38	99			36	37	25	47	43	42		41	39	37	30	36
		Yinchuan				27 [25]	26	25	30	22		28	27	44	41	45	37		20	25	37	40	54
	Xinjiang	Hami												29	36	23	30		30	29			
		Karamay																			23	26	8
		Urumqi	62	74	100	136 [143]	139	164	152	147		7	74	78	87	92	84		60	58	55	58	56

N.B. Province averages are averages of major urban areas. On occasion conflicting data are presented for a single year. In such cases, the data from the more recent source and from tables comparing several cities are preferred. In some cases figures reported by national and local authorities differ. In such cases the figures from local government reports appear in square brackets, i.e., "national [local]."

[1] Between 1986 and 1990 results of air quality monitoring in Dalian were reported for both automatic and chemical analysis. For those years the data are reported as "automatic | chemical".

[2] Ambient pollution levels for most cities were not published for 1994.

Source: EB, China Environment Yearbook, various years.

Table 8B.9. Ambient Particulate Deposition Velocity, Selected Cities, 1986-2004

Annual Averages, tonnes per square km per month

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[1]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
North	Beijing				20.00	17.80		19.10	17.71	19.90 [23.58]		19.01	16.00	17.42	16.07	15.50	15.10	15.00	13.10	9.40	11.50
		Tianjin	30.60	24.38	19.51	18.93 [18.2]	18.13	16.77	14.25	13.94		15.74	12.55	14.41	13.56	13.10	15.40	15.60	16.00	13.50	
	Hebei	Baoding							17.59	21.08		23.71	20.92	17.41	18.98	20.90	38.40	31.70	24.80	17.70	17.50
		Cangzhou								22.16									15.60		
		Chengde								23.38									20.40		12.80
		Handan								36.27									34.20		37.60
		Langfang								11.57									14.50		
		Qinhuangdao				32.07		18.58	19.27	18.26 [19.62]		16.19	11.35	10.60	8.57	10.60	13.00	8.90	8.60	7.50	6.80
		Shijiazhuang				48.02		42.25	37.41	33.39 [36.06]		26.12	21.20	21.25	20.67	24.30	23.00	17.80	16.20	13.90	10.20
		Tangshan				36.37		34.96	30.19	44.44 [43.64]		34.56	31.85	28.26	22.20	18.00	17.70	19.00	16.30	14.80	14.50
		Xingtai								41.82									17.00		16.90
		Zhangjiakou								50.01									51.30		
	Shanxi	Datong						32.15	43.87	45.48		39.48	36.94	28.83	28.53	31.10	35.50	42.10	45.10	37.50	
		Taiyuan	42.44	54.93	64.87	28.79	33.40	30.21	26.60	30.64		31.63	33.88	36.95	35.01	37.90			30.60	26.20	31.60
		Yuncheng				16.70		23.73	15.66	17.73		10.26	9.61	14.91	17.05	26.10					
	Inner Mongolia	Baotou	50.28	71.23	75.13	54.61	68.39			83.47		60.13	50.42	43.72	66.32						
		Chifeng	31.53	35.28	16.30	20.66															
		Hohhot	28.06	32.82	44.22	22.70		14.38		15.11		10.37	10.32	14.89	12.59	9.80	13.40	12.10	12.20	11.40	8.50
		Wuhai	89.47	69.56	93.17	48.96															
Northeast	Liaoning	Anshan				48.10	50.30	51.17	51.08	53.78		51.92	52.68	53.17	59.75	61.60	35.30	38.40	32.10	26.10	
		Dalian	28.99	27.59	24.72	23.70	22.40	21.96	23.22	24.81		18.02	19.97	18.57	12.89		17.20	17.40	17.60	13.30	
		Huludao												7.25	10.13	9.40	7.30	8.70	15.70	11.80	20.40
		Shenyang	41.01	53.63	48.03	41.17	33.50 1.83 [31.74]		31.88	29.22	26.55	26.47	23.77	23.91	21.07	21.10	21.30	24.40	24.20	18.10	
	Jilin	Changchun			46.03	45.62 [45.1]	42.30 5.64 [43.52]		44.67 [44.11]	33.03 [31.16]		17.35	19.85	15.15	17.86	17.30	15.20	14.40	15.90		12.20
		Ji'an										5.24	4.68	6.52	4.23	6.00	5.60	4.90	6.00	5.40	5.00
		Jilin				27.30		31.84	35.41	28.53		25.39	27.31	21.28	26.38	23.80	25.00	27.20	24.60	16.40	15.80
		Siping							16.84	18.76		38.96	38.50	25.84	24.84	25.10	25.00	22.90	30.20	22.70	22.50
	Heilongjiang	Tumen				18.01		10.01	14.91	13.18		10.76	12.74	11.26	9.16	15.80	13.90	15.30	12.60	10.30	10.00
		Daqing				16.55		13.87	17.09	16.73		11.99	9.16	9.43	12.89	14.50	13.50	18.70	14.80	12.40	14.40
		Harbin						40.61	37.38	40.62		37.53	31.24	25.99	20.45	17.60	17.00	13.90	13.60	13.50	14.20
		Hegang				36.00			35.01	29.62		32.83	30.85	33.88	28.79	35.20	25.50	48.40	30.00	44.80	33.20
		Jiamusi																	16.50	20.20	
		Jixi																			27.00
		Mudanjiang																		10.60	13.80
		Qiqihar																	19.10	16.40	
		Qitaihe										25.77	24.89	24.97	25.01	27.50	28.30	28.40	28.30	28.60	28.60
		Shuangyashan																		29.90	
		Yichun										28.64	17.93	20.52	15.61	11.40	12.00	14.50	10.80	16.90	10.40

(continued)

Table 8B.9. Ambient Particulate Deposition Velocity, Selected Cities, 1986-2004 (continued)

Annual Averages, tonnes per square km per month

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[1]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
East	Shanghai		25.00			24.20	15.98 [21.80]		13.83	12.92		11.61	11.05	10.51	9.80	8.80	8.90	8.60	8.50	8.80	
	Jiangsu	Changzhou																		9.10	8.80
		Huai'an																		3.90	5.30
		Lianyungang												6.35	7.40	6.80	7.30	8.30	6.90	6.20	6.20
		Nanjing						12.64 [12.73]	14.19 [12.91]	8.33		9.61	8.01	10.06		9.10	10.90	10.90	10.30	9.60	9.20
		Nantong								8.28		8.53	8.64	7.87	7.67	7.80	8.10	7.40	6.30	6.60	6.60
		Suqian																		5.70	6.40
		Suzhou				10.30		9.05	10.55 [11.44]	8.28		6.31	7.13	10.40	5.56	4.60	6.80	6.80	4.20	2.60	4.50
		Taizhou																		5.00	4.70
		Wuxi																		9.00	7.10
		Xuzhou				16.40		16.60	21.39 [21.10]	13.79		14.84	13.21	12.51	14.44	14.00	12.10	10.30	10.20	9.40	11.90
		Yancheng																		7.40	18.50
		Yangzhou																		6.90	9.00
		Zhenjiang						7.43	7.5 [17.54]										12.40	13.20	12.80
	Zhejiang	Hangzhou	13.78	13.01	11.28	13.14 [12.5]	12.32	11.94	12.78	13.54		13.77	12.77	12.51	8.44	9.90	13.10	12.40	10.20	8.00	
		Huzhou	9.57	12.41	14.67	10.91	7.37														
		Jiaxing	17.10	18.72	15.79	11.99	12.39														
		Jinhua	10.70	4.58	8.98	9.96	6.34														
		Ningbo	10.85	10.16	7.30	6.53	7.01					5.04	5.85	4.05	4.34	4.60	5.40	5.20	5.00	5.00	4.90
		Shaoxing	11.37	9.65	13.43	14.89	17.13														
		Wenzhou	10.97	9.16	9.15	8.22	5.46	4.68	5.84	10.95		8.25	5.05	6.12	6.89	6.70	8.20	7.50	6.70	5.70	6.50
	Anhui	Anqing	14.61	11.69	13.12	12.93						20.15	11.99	18.05	14.15	8.80	8.20	11.30	8.60	9.00	
		Bengbu			13.48																
		Hefei	10.43	14.85		20.05 [19.2]	12.76			5.96		8.44	9.52	8.20	6.00	7.80	6.80	7.60	8.50	9.30	
		Huaibei	11.85	11.54	13.25	12.85	11.65														
		Huainan		13.45		17.32															
		Ma'anshan	34.61	29.75	26.21		25.12														
		Tongling	10.31	7.20	9.15																
		Wuhu	15.20	27.50		25.64	22.64														
	Fujian	Fuzhou				12.87		9.95	8.55	8.06		9.31	9.00	7.80	7.60	7.10	7.10	6.40	5.40	5.20	5.20
		Quanzhou																		1.90	5.10
		Sanming				61.92		49.75	55.75			14.98	13.89	14.16	12.12	11.80		10.50	11.40	16.40	
		Xiamen				13.01		8.42	7.47			5.48	5.26	3.97	3.51	5.70	5.20	5.10	3.90	3.80	5.20
	Jiangxi	Ganzhou	6.86	5.82	9.12	8.00	6.83	5.35 [5.53]	6.68	6.78		8.29	7.30	5.93	5.51	6.00	5.80	5.70	5.10	6.50	4.20
		Jingdezhen	14.29	25.50	9.09	22.12	13.32	11.00	11.19	7.76		8.72	6.83	5.25	4.68	6.10	5.90	6.40	6.40	6.30	6.70
		Jiujiang	15.53	19.25	20.91	29.40	20.20	14.13	12.19	15.48		9.35	8.16	8.46	7.48	10.00	9.80	8.80	6.30	7.50	6.00
		Nanchang	14.27	11.05	10.17	13.83	9.70	9.43 [9.92]	10.35	11.13		8.51	8.05	7.12	7.19	9.00	9.80	9.40	9.50	12.00	12.50
		Pingxiang	7.93	8.74	10.84	11.64	8.34	30.25	11.13	9.79		9.79	20.23	7.02	8.29	7.00	6.40	6.40	6.40	8.40	7.90
		Xinyu	14.73	11.35	11.44	7.96	13.27	15.82													
	Shandong	Ji'nan				31.64		27.49	29.80	35.77		22.98	21.91		19.24	17.00	18.00	18.00	15.50	15.80	15.50
		Jining																		11.20	
		Qingdao	25.80	21.10	22.10	20.80	19.56	17.88	16.64	15.72	18.47	18.99	16.61	16.45	15.05	16.40	17.10	19.80	17.60	14.50	14.90
		Yantai																		12.50	
		Zibo				22.41		19.29	18.41	20.39		19.30	19.63		19.09	17.20	17.30	19.00	23.10	18.00	15.70

(continued)

Table 8B.9. Ambient Particulate Deposition Velocity, Selected Cities, 1986-2004 (continued)

Annual Averages, tonnes per square km per month

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[1]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
South-Central	Henan	Anyang				21.26		16.42	19.91	20.00		28.60	21.79	26.01	18.60	21.60	19.30	22.80	21.30	17.00	18.50
		Jiaozuo										53.50	37.84	41.71	32.01	32.10	28.10	25.40	22.60	20.80	17.90
		Kaifeng										27.96	26.93	16.64	14.56	18.60	21.40	14.20	15.50	9.80	12.90
		Luoyang				14.15				20.93		20.06	22.75	21.92	15.89	16.90	25.40	24.20	14.90	12.90	14.70
		Pingdingshan				26.23				13.06		14.67	14.10	12.32	12.58	13.40	15.90	15.20	11.90	14.20	13.60
		Sanmenxia																			15.70
		Zhengzhou	40.74	34.49	26.23	27.54	23.95	20.61	21.39	23.35		28.43	34.24	24.92	19.97	21.20	17.00	17.30	17.70	16.00	15.40
	Hubei	Jingzhou																		9.30	6.20
		Wuhan	22.76	17.85	22.72	17.62	16.24	17.68	16.91	19.85		19.31	19.69	19.16	18.55	15.80	14.10	12.30	14.10	13.60	11.20
		Xiangfan				7.61		7.44	8.42	7.84		8.60	8.67	8.27	9.55	10.50	11.80	14.80	12.40	10.80	
		Yichang				16.72		13.86	15.76	13.82		10.02	14.90	12.71	10.62	10.60	10.20	10.20	9.00	8.00	8.50
	Hunan	Changsha						9.77	12.60	13.32		13.34	12.75	12.13	13.69	13.60	13.50	14.80	13.10	14.50	10.50
		Hengyang				16.48		13.41	14.94	11.71		11.88	9.98	8.45	10.83	11.90	9.70	10.30	10.50	12.20	7.20
		Huaihua								4.03		6.10	5.53	6.25	5.08	5.40	5.10	5.10	5.30	4.80	4.10
		Zhuzhou												11.93	15.71		27.80	23.90			14.30
	Guangdong	Guangzhou	13.75	14.19	13.65	10.04	9.59	8.53 [8.76]	9.87 [10.00]	9.50		9.13	9.01	8.31	8.44	8.30	7.30	6.10	5.90	6.10	5.20
		Shantou				5.50	4.32	8.06	7.42												
		Shenzhen						7.93	9.32				5.68		4.99	8.20	5.00	5.30	5.80	7.50	7.70
		Zhanjiang										6.77	6.67	6.75		4.00	4.40	5.40	3.30	4.50	4.30
		Zhuhai					3.33	3.59	5.14						3.52	3.20	2.60	1.90	2.10	2.90	3.10
	Guangxi	Beihai						9.10	6.38	8.35									5.80	6.30	6.30
		Baise						3.22 [5.4]	5.18 [5.37]	4.80 [5.35]		3.90	4.79	3.68	4.49	4.30	4.50	4.60	5.20	3.40	
		Guilin	10.29	16.12	15.71	11.58	9.17	11.09 [35.4]	14.20 [14.25]	10.01 [10.31]		12.88	8.49	6.29	7.39	9.40	8.40	10.00	6.60	8.40	8.20
		Hechi											3.92	5.68	6.03	4.40	6.00	5.40	3.30	3.70	4.10
		Nanning	9.84	9.32	9.84	9.16 [8.53]	11.44	11.22 [42.1]	11.99 [14.16]	11.44		10.82	9.09	7.48	7.38	7.80	6.50	7.30	7.20	6.60	6.90
Southwest	Hainan	Wuzhou	8.12	9.11	10.02	9.99	7.32	21.00	8.34	7.14 [7.59]		4.18	4.06	4.64	5.23	5.00	5.50	3.90	4.50	5.70	7.20
		Haikou				5.24		4.04 [4.12]	4.22	4.63		4.73	4.57	7.93	13.69	5.10	3.20	3.30	3.50	3.80	3.10
		Sanya						6.20		9.68									3.90	4.00	
	Sichuan	Chengdu	12.29	9.29	11.75	13.32		11.37	12.35	16.96		13.11	12.19	11.51	11.28	11.80	11.30	9.70	8.50	8.90	8.90
		Deyang																		16.10	16.70
		Leshan								8.27		8.95	8.42	7.37	6.57	6.40	6.70	5.90	5.90	6.40	6.20
		Luzhou																		6.20	5.60
		Mianyang																		6.50	7.80
		Nanchong				3.77		10.85	10.30	11.19		9.57	10.36	9.46	7.19	9.90	11.70	11.20	7.00	8.40	6.70
		Panzhihua																		20.80	28.80
		Yibin						7.69	8.65	12.49		10.34	9.38	11.73	10.32	11.60	11.00	11.40	13.00	12.70	16.20
		Zigong							8.61			8.26	7.76	6.69	6.43	7.50	8.40	9.50	8.10	6.50	5.80
		Chongqing				19.90		22.41	17.81	13.18	15.60	14.55	11.85	12.64	12.65	11.90	11.50		9.20	9.30	
		Wanxian										18.56	9.81	13.82							
	Guizhou	Guiyang		17.20	15.90	21.94			17.32	12.11		14.55	12.98	11.97	12.48	14.00	13.30	13.00	12.30	11.20	11.30
		Liupanshui				9.73		4.61	8.84	9.99		16.64	10.55	13.15	11.05	12.00	11.10	10.10	9.20	11.20	12.80
	Yunnan	Zunyi																	8.30	7.00	
		Gejiu				6.25	6.22	4.95	4.11	4.05		3.70	3.33	3.81	3.31	5.50	5.40	5.30	3.50		10.50
		Jinghong																		3.20	3.00
		Lijiang																		9.90	13.60
		Kunming				10.88	13.48	9.49	9.05	9.28		10.64	11.08	10.49	10.85	7.70	7.40	8.20	7.80		
	Xizang	Lhasa											8.10	18.84	17.88	19.10	20.40	15.40	9.10	14.20	9.40

(continued)

Table 8B.9. Ambient Particulate Deposition Velocity, Selected Cities, 1986-2004 (continued)

Annual Averages, tonnes per square km per month

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993	1994 ^[1]	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Northwest	Shaanxi	Baoji				24.04		22.10	27.56	23.20		18.01	14.79	13.95	12.30	11.90	15.60	14.60	14.60	13.70	14.10
		Hanzhong				6.78		7.38	9.90	8.50		7.14	8.79	7.52	7.90	8.90	8.90	9.10	9.30	7.80	8.60
		Xi'an				18.12		20.24	20.04	21.99		27.07	26.86	26.59	24.30	26.00	27.00	24.10	28.00	26.50	30.50
		Yan'an				15.28		19.15	25.97	25.40		24.44	16.43	15.07	14.22	13.10	14.80	16.80	14.70	12.4	15.8
	Gansu	Baiyin																		21	
		Jiayuguan				16.49		31.01	23.01	24.76		25.84	18.29	29.70	40.12	19.80		11.10	10.10	12.5	11.4
		Lanzhou				23.57		28.57	30.82	29.66		25.15	28.00	27.11	25.99	26.50	21.10	27.60	26.30	22.1	20.8
		Tianshui																		14.6	
	Qinghai	Xining				36.37		23.54	25.14	23.70		20.49	23.64	20.19	24.11	22.10	19.70	26.00	21.80	22.9	20.9
	Ningxia	Shizuishan										17.35	24.70	17.72	25.44	22.60	21.60	31.50	30.10	20.1	20.6
		Yinchuan				25.38		26.97	35.84	35.04		31.96	34.10	32.67	38.83	29.90	35.20	48.00	44.50	38.1	41.9
	Xinjiang	Hami													11.45	13.90	15.40	17.40	18.90	17.8	
		Karamay																		7.5	6.9
		Urumqi	31.17	18.27	23.35	3.54 [24.72]	25.78					23.10	28.41	23.40	25.91	21.40	26.90	29.20	21.00	16.7	20.1

N.B. Province averages are averages of major urban areas. On occasion conflicting data are presented for a single year. In such cases, the data from the more recent source and from tables comparing several cities are preferred. In some cases figures reported by national and local authorities differ. In such cases the figures from local government reports appear in square brackets, i.e., "national [local]."

[1] Ambient pollution levels for most cities were not published for 1994.

Source: EB, China Environment Yearbook, various years.

Table 8B.10. Average pH of Precipitation in Cities within "Acid Rain Control Regions" ^[1], 1994-2005

	pH							Total	Subtotal: < 5.6	
	< 4.0	4.0 - 4.5	<4.5	4.5 - 5.0	5.0 - 5.6	>5.6	5.6 - 7.0			> 7.0
Number of Cities										
1994									77	37
1995										
1996	1	3		20	18		32	9	84	43
1997	1	4		23	15		38	11	92	43
1998	0	6		29	21		44	12	112	56
1999	0	2		19	22		49	14	106	43
2000	0	2		21	17		48	11	99	40
2001	0	8		41	29		25	4	107	78
2002			18	29	32		28	2	109	79
2003			16	35	24		30	1	106	59
2004	4	20		37	22	29			112	83
2005			61	73	53		77	5	269	126
% of Cities										
1994										48.1%
1995										
1996	1.2%	3.7%		24.4%	22.0%		37.8%	11.0%	100%	51.3%
1997	1.1%	4.4%		25.0%	16.3%		41.3%	12.0%	100%	46.8%
1998	0.0%	5.4%		25.7%	19.1%		39.0%	10.8%	100%	50.2%
1999	0.0%	1.9%		17.9%	20.8%		46.2%	13.2%	100%	40.6%
2000	0.0%	2.0%		21.2%	17.2%		48.5%	11.1%	100%	40.4%
2001	0.0%	7.5%		38.3%	27.1%		23.4%	3.7%	100%	72.9%
2002			16.5%	26.6%	29.4%		25.7%	18.0%	100%	72.5%
2003			15.1%	33.0%	22.6%		28.3%	0.9%	100%	55.7%
2004	3.6%	17.9%		33.0%	19.6%	25.9%			100%	74.1%
2005			22.7%	27.1%	19.7%		28.6%	1.9%	100%	46.8%

[1] "Acid rain control regions", covering mainly the southern and southwestern areas of China, were created under the revised Air Pollution Control Law (1996). Within these areas, special policies apply regarding monitoring of activity of precipitation and mitigation of acid precursor emissions.

Source: EB, China Environment Yearbook, various years.

Table 8B.11. Ambient Air Pollution Standards, 1996

Chinese Ambient Air Pollution Standards ^[1]					U.S. National Ambient Air Quality Standards						World Health Organization Guidelines ^[5]						
	annual average	daily average	1-hour average	max. at any time		annual mean ^[4]	daily average	8-hour average	3-hour average	1-hour average		annual mean	daily average	8-hour average	1-hour average	30-min average	10-min average
TSP (µg/m ³) ^[2]																	
Class I		80	120	300													
Class II		200	300	1,000													
Class III		300	500	1500													
PM 10 (µg/m ³) ^[3]																	
Class I		40	50	150	primary	50	150										
Class II		100	150	500	secondary	50	150										
Class III		450	250	700													
PM 2.5 (µg/m ³) ^[3]																	
Class I					primary	15	65										
Class II					secondary	15	65										
SO ₂ (µg/m ³)																	
Class I	20	50	150		primary	80	365				guideline	50	125			500 ^[6]	
Class II	60	150	500		secondary				1,300								
Class III	100	250	700														
CO (µg/m ³)																	
Class I		4,000	10,000	10,000	primary			10,000		40,000	guideline			10,000	30,000	60,000	100,000
Class II		4,000	10,000	10,000													
Class III		6000	20000	20000													
NO ₂ (µg/m ³)																	
Class I	40	80	120	100	primary		100				guideline	40	200				
Class II	40	80	120	150	secondary		100										
Class III	80	120	240	300													
O ₃ (µg/m ³)																	
Class I			120		primary			157		235	guideline			120			
Class II			160														
Class III			200														
Pb																	
Class I	1.5 ^[7]				primary	1.5 ^[7]					guideline	0.5					
Class II	1.5 ^[7]				primary	1.5 ^[7]											
Class III	1.5 ^[7]																

[1] Class I standards (1996) apply to scenic, tourist, and other sensitive areas. Class II air quality standards are intended to protect human health and apply to residential areas. Class III standards are interim targets for heavily polluted areas.

[2] Total suspended particulate matter.

[3] PM10 and PM2.5 are particulates with diameter less than or equal to 10 μm and 2.5 μm , respectively.

[4] US annual standards for TSP and PM10 refer to geometric means and for SO₂ to arithmetic mean.

[5] These guidelines are set to protect human health. The World Health Organization has determined that there is no threshold level below which there are no adverse effects from exposure to particulates, and therefore has not issued guideline values for TSP, PM10, or PM2.5.

[6] Ten-minute average.

[7] Quarterly (three-month) average.

Source: NEPA, 1996; EB, China Environmental Yearbook, 1991; USEPA, 2001; WHO, 1999.

Table 8C.1. Ambient Carbon Monoxide Levels, Selected Cities (Annual Averages, mg/m³)^[1] 1981-2004

Standard	max. at daily avg any time															
Class I	4	10														
Class II	4	10														
Class III	6	20														
Region	Province	City	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
North	Tianjin			2.25	3.00	2.84		6.82	3.11	3.83	3.61	3.33	2.21		2.49	3.11
		Liaoning														
		Anshan										2.00				
		Benxi										2.40				
		Chaoyang										0.80				
		Dalian ^[2]			2.59	4.32		2.36	2.12 2.04	1.95 2.49	2.37 3.33	1.96 2.62	1.99 2.75	2.04	1.90	
		Table 8C.1. Ambient Carbon I Dandong										2.30				
		Table 8C.2. Acidity of Precipite Fushun										2.10				
		Table 8C.3. Comparison of Se Fuxin										1.10				
		Table 8C.4. Indoor Air Pollution Jinzhou										2.40				
Northeast	Liaoning	Liaoyang										1.80				
		Shenyang	3.03	1.72	1.11	2.72		2.00	2.46	1.78	1.67	1.92	2.20			
		Tieling										0.20				
		Yingkou										0.70				
	Jilin	Changchun										1.49	1.84	2.58	1.84	1.40
		Heilongjiang										3.76				
	Heilongjiang	Harbin														
	Shandong	Qingdao						1.70	1.70	2.30	2.20	2.60				
South-Central	Guangdong	Guangzhou		2.75				2.90	2.70	2.61	3.10	2.33	3.16	2.91	2.77	2.91
		Zhuhai										0.58	0.48			

N.B. Province averages are averages of major urban areas. On occasion conflicting data are presented for a single year. In such cases, the data from the more recent source and from tables comparing several cities are preferred.

[1] Carbon monoxide levels are not regularly reported by most cities, and are not collected and published at the national level.

[2] Between 1986 and 1990 results of air quality monitoring in Dalian were reported for both automatic and chemical analysis. For those years the data are reported as "automatic | chemical."

Source: EB, China Environment Yearbook, various years.

Table 8C.2. Acidity of Precipitation (pH, Annual Averages and Ranges), 1986-1997

Region	Province	City	1986	1987	1988	1989	1990	1991	1992	1993 ^[1]	1994 ^[2]	1995	1996	1997
Northeast	Jilin	Tumen										4.18-6.90	4.20-6.46	3.91-7.08
East	Jiangsu	Nanjing										3.90-8.14	3.80-7.98	3.90-8.26
	Zhejiang	Hangzhou										4.12-7.74	3.70-8.88	3.33-7.36
	Fujian	Xiamen										3.75-7.27	3.03-6.72	3.56-6.47
	Jiangxi	Nanchang										3.28-6.84	3.52-6.57	3.26-6.84
	Shandong	Qingdao							5.17-7.24			4.08-7.20	3.72-7.83	3.46-8.00
Table 8C.1. A Hubei		Wuhan				5.39		5.25						
Table 8C.2. Acidity of Precipitation														
Table 8C.3. C Hunan		Changsha										2.92-5.25	3.00-5.60	3.01-3.74
Table 8C.4. Indoor Air Pollutio		Hengyang										3.25-6.80	3.78-6.70	3.52-6.60
	Guangdong	Guangzhou								4.96		3.83 - 7.73	3.62 - 6.88	3.78 - 7.35
	Guangxi	Beihai								6.35, (4.36-8.23)				
		Bose								4.77, (3.20-7.68)				
		Guilin								5.01, (3.57-7.25)				
		Hechi								5.21, (4.07-7.69)		3.38 - 7.27	3.50 - 7.19	3.62 - 7.36
		Nanning								5.13, (3.12-6.87)		3.33 - 8.03	3.70 - 7.60	3.95 - 7.04
		Liuzhou								4.38, (3.45-6.94)				
		Qinzhou								5.35, (3.07-7.97)				
		Wuzhou								4.76, (3.04-6.90)		3.06 - 7.00	3.56 - 6.84	3.30 - 7.60
		Yulin								5.92, (4.57-7.01)				
Southwest	Sichuan	Chengdu							4.70	4.82	5.08			
		Zigong							4.82	4.69	4.54			
		Panzhihua							5.17	4.88	4.97			
		Luzhou							4.09	4.48	4.72			
		Neijiang							4.60	4.88	4.85			
		Leshan							4.39	4.52	5.17			
		Mianyang							4.31	4.34	4.18			
		Deyang									6.58			
		Guangyuan								4.46	6.27			
		Suining								4.71	4.74			
		Yibin						4.28	4.36	4.26		3.90 - 5.80	3.32 - 5.26	3.40 - 6.86
		Nanchong						4.39	4.11	4.15				
		Dachuan						4.75	3.74	4.81				
		Fuling							3.92	4.83				
		Ya'an							4.73	4.88				
		Xichang						4.95		6.19				
		Emeishan						4.41		4.38				
	Chongqing	Chongqing						4.36	4.23	4.61/4.18 ^[3]	4.70	3.08 - 8.06	3.30 - 7.66	3.28 - 8.70
		Wanxian						4.79	4.21	5.19				
	Guizhou	Anshun				4.60		5.40	4.60	4.30	3.90			
		Duyun				4.20		4.60	4.60	5.20	3.40			
		Guiyang	4.20	5.76	4.30	4.98		4.80	4.40	5.30	3.20	3.92-5.60	3.86-6.22	4.03-7.37
		Liupanshui				6.40		6.30	6.60	6.80				
		Zunyi				4.20		4.20	4.10	4.40	3.70			
	Yunnan	Gejiu						4.42						
		Kunming						6.41						

N.B. Province averages are averages of major urban areas. On occasion conflicting data are presented for a single year. In such cases, the data from the more recent source and from tables comparing several cities are preferred. The normal pH value of precipitation is about 5.6.

[1] Average, (range).

[2] Ambient pollution levels for most cities were not published for 1994.

[3] Urban/suburban.

Source: EB, China Environment Yearbook, various years.

Table 8C.3. Comparison of Severity of Acid Rain in Various Cities, 1994-1999

Category	1994	1995	1996	1997	1998	1999 ^[1]
Annual average pH < 4.5		Changsha, Hengyang, Ganzhou, Xiamen	Changsha, Xiamen, Ganzhou, Yibin	Changsha, Zunyi, Hangzhou, Yibin	Lin'an, Zhuzhou, Linyang, Shaoguan, Qingyuan, Yingtan, Changsha	
Annual average pH < 5.6 (northern cities only)		Tumen, Qingdao, Taiyuan, Shijiazhuang		Tumen, Qingdao, Taiyuan	Tumen, Qingdao, Xi'an, Tongchuan	Tumen, Qingdao
Frequency of acid rain > 90%	Changsha, Ganzhou, Yibin	Changsha, Ganzhou, Yibin	Yibin, Hengyang, Changsha, Ganzhou	Changsha, Xiamen, Jingdezhen, Zunyi		Huaihua, Jingdezhen, Zunyi, Yibin, Ganzhou
Frequency of acid rain		Huaihua, Leshan, Nanchang	Wuzhou, Xiamen, Tumen, Huaihua, Nanchang	Bose, Nanchong, Yibin		
Table 8C.1. Ambient Carbon Monoxide Levels, Selected Cities						
Table 8C.2. Acidity of Precipitation						
Table 8C.3. Comparison of Severity of Acid Rain in Various Cities		Hengyang, Xiamen, Nanchong, Wuzhou	Leshan, Guangzhou	Hangzhou, Nanchang, Leshan, Huaihua, Hengyang, Ningbo, Wuzhou, Pingxiang		
Table 8C.4. Indoor Air Pollution in Chinese Residences: Ratio						

[1] 1999 figure for frequency of acid precipitation covers all cities with 80% or higher frequency.

Source: EB, China Environment Yearbook, various years.

**Table 8C.4. Indoor Air Pollution in Chinese Residences: Range of Pollutant Levels^[1]
Reported in Research Articles**

Pollutant	Unit	Fuel Type	Urban Households	Rural Households
Total Suspended Particulates	(mg/m ³)	coal	0.21-2.8	0.01-20
		gas	0.15-0.51	0.19
		biomass		0.17-2.6
PM ₁₀ ^[2]	(mg/m ³)	coal	0.16-2.7	0.12-26
		gas	0.14-0.45	
		biomass		0.83-22
Carbon Monoxide	(mg/m ³)	coal	0.58-97	0.70-87
		gas	0.22-36	2.4
		biomass		0.5-16
Sulfur Dioxide	(mg/m ³)	coal	0.01-5.8	0.01-23
		gas	0.01-1.3	0.02-0.07
		biomass		0.01-9.1
Nitrogen Oxides	(mg/m ³)	coal	0.01-1.8	0.01-1.7
		gas	0.01-0.88	0.03-0.05
		biomass		0.01-.32
Benzo(a)pyrene ^[3]	(ng/m ³)	coal	0.3-190	5.3-19,000
		gas	4.7-93	
		biomass		3.7-3,100

[1] Arithmetic means for individual households over single monitoring periods.

[2] Suspended particulate matter (PM) with diameter =10µm, i.e., the fraction of total suspended particulates most closely associated with serious health impacts.

[3] Benzo(a)pyrene is a proxy for a class of combustion products, polycyclic aromatic hydrocarbons (PAHs), many of which are known carcinogens.

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[Figure 9B.11. Energy Use in Transportation, Selected Countries](#)
[Figure 9B.12. Residential and Commercial Energy Use, Selected Countries](#)
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[Figure 9B.15. Sectoral Shares of Petroleum Consumption, Selected Countries](#)
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[Figure 9B.17. Carbon Dioxide Emissions, Selected Countries](#)

Table 9B.1. Primary Energy Production and Trade by Energy Type

1. Mtoe

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Primary electricity = nuclear + hydro + geothermal + solar/wind.

Source: IEA, 2007.

Table 9B.1. Primary Energy Production and Trade by Energy Source (continued)

2. Mice

Commercial											Commercial										
Year	Solids ^[1]	Liquids ^[2]	Natural Gas	Primary Electricity ^[3]	Energy Subtotal	Biomass	Total Production	Stock Changes	Imports	Exports	Year	Solids ^[1]	Liquids ^[2]	Natural Gas	Primary Electricity ^[3]	Energy Subtotal	Biomass	Total Production	Stock Changes	Imports	Exports
China																					
1989	725	199	22	14	961	281	1,242	-23	16	-60	1989	731	633	579	258	2,202	98	2,300	26	639	-149
1990	765	197	23	16	999	285	1,285	6	11	-61	1990	767	616	597	281	2,260	89	2,349	-53	644	-155
1991	769	201	24	15	1,009	288	1,297	-9	17	-61	1991	738	614	592	297	2,241	93	2,334	14	627	-167
1992	792	202	23	16	1,034	290	1,324	-1	29	-62	1992	737	606	597	296	2,236	104	2,341	15	671	-161
1993	821	207	25	19	1,072	291	1,363	4	50	-55	1993	694	585	604	297	2,180	95	2,275	44	733	-136
1994	885	208	26	26	1,145	292	1,437	7	39	-59	1994	762	572	628	306	2,268	97	2,365	-34	771	-129
1995	983	214	26	28	1,251	293	1,544	-5	50	-69	1995	756	566	620	322	2,265	100	2,365	27	763	-142
1996	1,022	224	30	28	1,304	295	1,599	6	63	-78	1996	779	565	626	329	2,298	103	2,401	17	817	-150
1997	1,015	229	31	29	1,304	296	1,600	-16	95	-82	1997	800	561	629	307	2,297	100	2,398	-8	873	-150
1998	987	229	34	31	1,281	298	1,579	-1	80	-73	1998	817	545	631	321	2,314	102	2,416	-52	916	-143
1999	954	228	37	30	1,249	303	1,552	21	90	-67	1999	798	522	627	344	2,292	107	2,400	19	940	-123
2000	965	232	40	33	1,271	305	1,576	13	137	-95	2000	773	521	637	348	2,279	104	2,384	68	1,000	-133
2001	994	234	45	40	1,313	307	1,620	3	128	-124	2001	816	517	656	345	2,335	101	2,436	-75	1,038	-124
2002	1,053	238	39	45	1,374	310	1,684	-7	151	-122	2002	790	511	631	342	2,274	98	2,372	24	1,017	-121
2003	1,248	241	42	51	1,582	313	1,895	-8	194	-137	2003	749	499	637	342	2,227	99	2,326	7	1,076	-133
2004	1,470	250	50	62	1,833	315	2,148	-14	259	-128	2004	787	483	620	351	2,241	103	2,344	-8	1,161	-148
2005	1,630	258	61	68	2,017	318	2,335	-23	261	-119	2005	803	459	603	350	2,215	105	2,320	1	1,199	-153
India																					
1989	142	50	13	9	215	246	461	2	41	-4	Russian Federation										
1990	150	49	15	11	225	250	475	-3	48	-3	1992	205	568	736	66	1,574	18	1,592	-22	59	-526
1991	164	46	17	11	237	256	493	-4	55	-4	1993	192	503	710	66	1,471	17	1,488	-10	52	-468
1992	170	41	19	11	241	259	500	-2	65	-4	1994	176	452	697	58	1,383	12	1,395	-22	36	-481
1993	175	41	19	11	247	263	509	0	69	-5	1995	167	436	684	59	1,345	12	1,357	-16	41	-487
1994	182	49	20	12	263	266	529	2	68	-4	1996	160	428	691	60	1,338	10	1,348	4	35	-509
1995	194	53	25	12	284	268	552	1	78	-4	1997	152	435	656	60	1,302	10	1,312	18	36	-518
1996	200	50	25	12	287	271	559	0	91	-4	1998	145	431	679	59	1,313	8	1,321	-2	35	-527
1997	204	52	29	13	298	274	572	-4	100	-4	1999	164	434	679	65	1,342	11	1,353	4	26	-525
1998	207	50	30	15	303	278	581	2	109	-2	2000	167	460	670	69	1,365	10	1,375	-7	45	-540
1999	216	50	32	15	312	282	594	-5	128	-2	2001	174	495	667	73	1,408	10	1,418	-11	35	-558
2000	223	50	33	16	322	287	608	7	142	-12	2002	168	539	682	73	1,462	10	1,472	-9	34	-618
2001	233	49	33	16	332	291	623	4	145	-16	2003	181	599	711	76	1,566	9	1,575	-16	39	-688
2002	223	54	33	15	325	217	543	2	152	-16	2004	185	652	725	76	1,638	10	1,648	-8	34	-761
2003	237	55	34	16	341	220	561	-4	164	-23	2005	198	667	734	77	1,676	10	1,686	-10	31	-787
2004	253	56	33	17	358	222	581	4	183	-27											
2005	265	53	34	19	371	225	596	-5	205	-32											
Japan																					
1989	8	1	3	81	92	8	100	-7	511	-6	1989	3,119	4,525	2,362	1,019	11,025	1,330	12,355	-19	3,545	-3,543
1990	7	1	3	88	98	6	104	-1	532	-7	1990	3,124	4,560	2,422	1,060	11,166	1,336	12,502	-86	3,632	-3,649
1991	6	1	3	93	104	6	110	-2	544	-8	1991	3,054	4,561	2,476	1,103	11,194	1,363	12,556	8	3,645	-3,648
1992	6	1	3	95	105	6	112	1	554	-11	1992	3,059	4,618	2,477	1,112	11,266	1,386	12,653	-49	4,253	-4,237
1993	6	1	3	106	116	6	122	-2	554	-12	1993	2,996	4,645	2,533	1,154	11,328	1,389	12,718	49	4,305	-4,314
1994	5	1	3	111	120	6	126	-5	586	-13	1994	3,076	4,705	2,560	1,177	11,517	1,406	12,924	-45	4,342	-4,365
1995	5	1	3	122	131	6	138	-1	592	-15	1995	3,190	4,776	2,606	1,225	11,797	1,427	13,224	-5	4,450	-4,507
1996	5	1	3	127	136	7	143	-5	606	-14	1996	3,248	4,893	2,719	1,264	12,125	1,455	13,580	-2	4,707	-4,735
1997	3	1	3	134	142	7	149	-5	612	-15	1997	3,283	5,035	2,720	1,259	12,298	1,474	13,772	-58	4,925	-4,971
1998	3	1	3	141	147	8	155	7	585	-12	1998	3,243	5,132	2,790	1,285	12,450	1,494	13,944	-73	4,970	-5,090
1999	3	1	3	134	141	8	149	4	598	-10	1999	3,206	5,022	2,869	1,326	12,424	1,524	13,949	66	5,035	-5,031
2000	2	1	3	135	142	8	150	-6	617	-9	2000	3,218	5,200	2,985	1,354	12,757	1,543	14,301	79	5,353	-5,369
2001	2	1	3	134	141	7	148	5	602	-8	2001	3,359	5,196	3,044	1,372	12,971	1,556	14,528	-69	5,456	-5,449
2002	-	1	3	125	129	10	140	-3	613	-8	2002	3,364	5,212	3,076	1,382	13,034	1,520	14,555	12	5,548	-5,467
2003	-	1	4	106	111	9	120	2	620	-8	2003	3,583	5,379	3,196	1,364	13,522	1,565	15,101	-14	5,809	-5,760
2004	-	1	4	122	127	9	135	2	637	-9	2004	3,899	5,615	3,282	1,424	14,220	1,601	15,838	-29	6,205	-6,169
2005	-	1	4	128	133	9	142	-3	639	-14	2005	4,139	5,703	3,375	1,450	14,667	1,632	16,319	-36	6,370	-6,382

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Primary electricity = nuclear + hydro + geothermal + solar/wind.

Source: IEA, 2007.

Table 9B.1. Primary Energy Production and Trade by Energy Source (continued)

3. Energy Source Shares of Country Primary Production

Commercial								Commercial							
Year	Solids ^[1]	Liquids ^[2]	Natural Gas	Primary Electricity ^[3]	Energy Subtotal	Biomass	Total Production	Year	Solids ^[1]	Liquids ^[2]	Natural Gas	Primary Electricity ^[3]	Energy Subtotal	Biomass	Total Production
China								USA							
1989	58.3%	16.1%	1.8%	1.2%	77.3%	22.7%	100.0%	1989	31.8%	27.5%	25.2%	11.2%	95.7%	4.3%	100.0%
1990	59.5%	15.3%	1.8%	1.2%	77.8%	22.2%	100.0%	1990	32.7%	26.2%	25.4%	12.0%	96.2%	3.8%	100.0%
1991	59.3%	15.5%	1.8%	1.2%	77.8%	22.2%	100.0%	1991	31.6%	26.3%	25.4%	12.7%	96.0%	4.0%	100.0%
1992	59.9%	15.3%	1.8%	1.2%	78.1%	21.9%	100.0%	1992	31.5%	25.9%	25.5%	12.7%	95.5%	4.5%	100.0%
1993	60.3%	15.2%	1.8%	1.4%	78.6%	21.4%	100.0%	1993	30.5%	25.7%	26.5%	13.1%	95.8%	4.2%	100.0%
1994	61.6%	14.5%	1.8%	1.8%	79.7%	20.3%	100.0%	1994	32.2%	24.2%	26.5%	13.0%	95.9%	4.1%	100.0%
1995	63.7%	13.8%	1.7%	1.8%	81.0%	19.0%	100.0%	1995	32.0%	23.9%	26.2%	13.6%	95.8%	4.2%	100.0%
1996	63.9%	14.0%	1.9%	1.8%	81.6%	18.4%	100.0%	1996	32.4%	23.5%	26.1%	13.7%	95.7%	4.3%	100.0%
1997	63.4%	14.3%	1.9%	1.8%	81.5%	18.5%	100.0%	1997	33.4%	23.4%	26.2%	12.8%	95.8%	4.2%	100.0%
1998	62.5%	14.5%	2.2%	1.9%	81.1%	18.9%	100.0%	1998	33.8%	22.6%	26.1%	13.3%	95.8%	4.2%	100.0%
1999	61.4%	14.7%	2.4%	2.0%	80.5%	19.5%	100.0%	1999	33.3%	21.8%	26.1%	14.4%	95.5%	4.5%	100.0%
2000	61.2%	14.7%	2.5%	2.1%	80.6%	19.4%	100.0%	2000	32.4%	21.9%	26.7%	14.6%	95.6%	4.4%	100.0%
2001	61.4%	14.4%	2.8%	2.5%	81.0%	19.0%	100.0%	2001	33.5%	21.2%	26.9%	14.2%	95.8%	4.2%	100.0%
2002	62.5%	14.1%	2.3%	2.6%	81.6%	18.4%	100.0%	2002	33.3%	21.5%	26.6%	14.4%	95.9%	4.1%	100.0%
2003	65.9%	12.7%	2.2%	2.7%	83.5%	16.5%	100.0%	2003	32.2%	21.5%	27.4%	14.7%	95.7%	4.3%	100.0%
2004	68.4%	11.7%	2.3%	2.9%	85.3%	14.7%	100.0%	2004	33.6%	20.6%	26.5%	15.0%	95.6%	4.4%	100.0%
2005	69.8%	11.1%	2.6%	2.9%	86.4%	13.6%	100.0%	2005	34.6%	19.8%	26.0%	15.1%	95.5%	4.5%	100.0%
India								Russian Federation							
1989	30.7%	10.9%	2.9%	2.0%	46.5%	53.5%	100.0%	1992	12.9%	35.7%	46.2%	4.1%	98.9%	1.1%	100.0%
1990	31.6%	10.3%	3.2%	2.3%	47.4%	52.6%	100.0%	1993	12.9%	33.8%	47.7%	4.4%	98.9%	1.1%	100.0%
1991	33.2%	9.2%	3.5%	2.2%	48.1%	51.9%	100.0%	1994	12.6%	32.4%	50.0%	4.2%	99.1%	0.9%	100.0%
1992	34.0%	8.2%	3.8%	2.2%	48.2%	51.8%	100.0%	1995	12.3%	32.1%	50.4%	4.3%	99.1%	0.9%	100.0%
1993	34.4%	8.1%	3.8%	2.1%	48.4%	51.6%	100.0%	1996	11.8%	31.8%	51.2%	4.4%	99.3%	0.7%	100.0%
1994	34.4%	9.2%	3.9%	2.3%	49.8%	50.2%	100.0%	1997	11.6%	33.1%	50.0%	4.6%	99.3%	0.7%	100.0%
1995	35.1%	9.7%	4.5%	2.2%	51.4%	48.6%	100.0%	1998	10.9%	32.6%	51.4%	4.5%	99.4%	0.6%	100.0%
1996	35.8%	9.0%	4.5%	2.1%	51.5%	48.5%	100.0%	1999	12.1%	32.1%	50.2%	4.8%	99.2%	0.8%	100.0%
1997	35.7%	9.0%	5.0%	2.3%	52.1%	47.9%	100.0%	2000	12.1%	33.5%	48.7%	5.0%	99.3%	0.7%	100.0%
1998	35.7%	8.7%	5.2%	2.5%	52.1%	47.9%	100.0%	2001	12.3%	34.9%	47.0%	5.1%	99.3%	0.7%	100.0%
1999	36.3%	8.4%	5.3%	2.5%	52.6%	47.4%	100.0%	2002	11.4%	36.6%	46.3%	5.0%	99.3%	0.7%	100.0%
2000	36.7%	8.2%	5.4%	2.6%	52.8%	47.2%	100.0%	2003	11.5%	38.0%	45.1%	4.8%	99.5%	0.5%	100.0%
2001	37.4%	7.9%	5.3%	2.6%	53.2%	46.8%	100.0%	2004	11.2%	39.6%	44.0%	4.6%	99.4%	0.6%	100.0%
2002	41.1%	10.0%	6.0%	2.8%	60.0%	40.0%	100.0%	2005	11.7%	39.6%	43.5%	4.6%	99.4%	0.6%	100.0%
2003	42.2%	9.8%	6.0%	2.8%	60.8%	39.2%	100.0%								
2004	43.5%	9.6%	5.7%	2.9%	61.7%	38.2%	100.0%								
2005	44.5%	8.9%	5.7%	3.1%	62.1%	37.7%	100.0%								
Japan								World							
1989	8.2%	0.9%	2.5%	80.6%	92.2%	7.8%	100.0%	1989	25.2%	36.6%	19.1%	8.2%	89.2%	10.8%	100.0%
1990	6.2%	0.9%	2.5%	84.4%	94.0%	6.0%	100.0%	1990	25.0%	36.5%	19.4%	8.5%	89.3%	10.7%	100.0%
1991	5.7%	1.1%	2.4%	84.8%	94.1%	5.9%	100.0%	1991	24.3%	36.3%	19.7%	8.8%	89.1%	10.9%	100.0%
1992	5.3%	1.2%	2.4%	85.3%	94.3%	5.7%	100.0%	1992	24.2%	36.5%	19.6%	8.8%	89.0%	11.0%	100.0%
1993	4.6%	1.0%	2.3%	87.0%	94.9%	5.1%	100.0%	1993	23.6%	36.5%	19.9%	9.1%	89.1%	10.9%	100.0%
1994	4.3%	1.0%	2.3%	87.7%	95.2%	4.8%	100.0%	1994	23.8%	36.4%	19.8%	9.1%	89.1%	10.9%	100.0%
1995	3.6%	0.9%	2.0%	88.9%	95.3%	4.7%	100.0%	1995	24.1%	36.1%	19.7%	9.3%	89.2%	10.8%	100.0%
1996	3.6%	0.8%	2.0%	89.0%	95.4%	4.6%	100.0%	1996	23.9%	36.0%	20.0%	9.3%	89.3%	10.7%	100.0%
1997	2.3%	0.8%	1.9%	90.3%	95.3%	4.7%	100.0%	1997	23.8%	36.6%	19.8%	9.1%	89.3%	10.7%	100.0%
1998	1.9%	0.7%	1.9%	90.6%	95.1%	4.9%	100.0%	1998	23.3%	36.8%	20.0%	9.2%	89.3%	10.7%	100.0%
1999	2.1%	0.7%	1.9%	90.1%	94.8%	5.2%	100.0%	1999	23.0%	36.0%	20.6%	9.5%	89.1%	10.9%	100.0%
2000	1.5%	0.7%	2.1%	90.2%	94.5%	5.5%	100.0%	2000	22.5%	36.4%	20.9%	9.5%	89.2%	10.8%	100.0%
2001	1.5%	0.7%	2.1%	90.7%	95.0%	5.0%	100.0%	2001	23.1%	35.8%	21.0%	9.4%	89.3%	10.7%	100.0%
2002	0.0%	0.7%	2.5%	89.6%	92.7%	7.3%	100.0%	2002	23.1%	35.8%	21.1%	9.5%	89.6%	10.4%	100.0%
2003	0.0%	0.8%	3.1%	88.8%	92.8%	7.3%	100.0%	2003	23.7%	35.6%	21.2%	9.0%	89.5%	10.4%	100.0%
2004	0.0%	0.7%	2.8%	90.0%	93.6%	6.4%	100.0%	2004	24.6%	35.5%	20.7%	9.0%	89.8%	10.1%	100.0%
2005	0.0%	0.8%	2.9%	90.1%	93.7%	6.3%	100.0%	2005	25.4%	35.0%	20.7%	8.9%	89.9%	10.0%	100.0%

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Primary electricity = nuclear + hydro + geothermal + solar/wind.

Source: IEA, 2007.

Table 9B.1. Primary Energy Production and Trade by Energy Source (continued)

4. Country Shares of World Primary Production

Commercial								Commercial							
Year	Solids ^[1]	Liquids ^[2]	Natural Gas	Primary Electricity ^[3]	Energy Subtotal	Biomass	Total Production	Year	Solids ^[1]	Liquids ^[2]	Natural Gas	Primary Electricity ^[3]	Energy Subtotal	Biomass	Total Production
China								USA							
1989	23.2%	4.4%	0.9%	1.4%	8.7%	21.1%	10.1%	1989	23.4%	14.0%	24.5%	25.3%	20.0%	7.4%	18.6%
1990	24.5%	4.3%	0.9%	1.5%	9.0%	21.3%	10.3%	1990	24.6%	13.5%	24.6%	26.5%	20.2%	6.6%	18.8%
1991	25.2%	4.4%	1.0%	1.4%	9.0%	21.1%	10.3%	1991	24.2%	13.5%	23.9%	26.9%	20.0%	6.8%	18.6%
1992	25.9%	4.4%	0.9%	1.5%	9.2%	20.9%	10.5%	1992	24.1%	13.1%	24.1%	26.7%	19.9%	7.5%	18.5%
1993	27.4%	4.4%	1.0%	1.7%	9.5%	20.9%	10.7%	1993	23.2%	12.6%	23.8%	25.8%	19.2%	6.8%	17.9%
1994	28.8%	4.4%	1.0%	2.2%	9.9%	20.8%	11.1%	1994	24.8%	12.1%	24.5%	26.0%	19.7%	6.9%	18.3%
1995	30.8%	4.5%	1.0%	2.3%	10.6%	20.5%	11.7%	1995	23.7%	11.9%	23.8%	26.3%	19.2%	7.0%	17.9%
1996	31.5%	4.6%	1.1%	2.2%	10.8%	20.3%	11.8%	1996	24.0%	11.5%	23.0%	26.0%	19.0%	7.0%	17.7%
1997	30.9%	4.5%	1.1%	2.3%	10.6%	20.1%	11.6%	1997	24.4%	11.1%	23.1%	24.4%	18.7%	6.8%	17.4%
1998	30.4%	4.5%	1.2%	2.4%	10.3%	19.9%	11.3%	1998	25.2%	10.6%	22.6%	25.0%	18.6%	6.8%	17.3%
1999	29.8%	4.5%	1.3%	2.3%	10.1%	19.9%	11.1%	1999	24.9%	10.4%	21.9%	26.0%	18.5%	7.0%	17.2%
2000	30.0%	4.5%	1.3%	2.5%	10.0%	19.8%	11.0%	2000	24.0%	10.0%	21.4%	25.7%	17.9%	6.8%	16.7%
2001	29.6%	4.5%	1.5%	2.9%	10.1%	19.7%	11.2%	2001	24.3%	9.9%	21.6%	25.2%	18.0%	6.5%	16.8%
2002	31.3%	4.6%	1.3%	3.2%	10.5%	20.4%	11.6%	2002	23.5%	9.8%	20.5%	24.7%	17.4%	6.5%	16.3%
2003	34.8%	4.5%	1.3%	3.7%	11.7%	20.0%	12.5%	2003	20.9%	9.3%	19.9%	25.0%	16.5%	6.3%	15.4%
2004	37.7%	4.5%	1.5%	4.4%	12.9%	19.7%	13.6%	2004	20.2%	8.6%	18.9%	24.6%	15.8%	6.4%	14.8%
2005	39.4%	4.5%	1.8%	4.7%	13.8%	19.5%	14.3%	2005	19.4%	8.0%	17.9%	24.2%	15.1%	6.4%	14.2%
India								Russian Federation							
1989	4.5%	1.1%	0.6%	0.9%	1.9%	18.5%	3.7%	1989	6.7%	12.3%	29.7%	5.9%	14.0%	1.3%	12.6%
1990	4.8%	1.1%	0.6%	1.0%	2.0%	18.7%	3.8%	1990	6.4%	10.8%	28.0%	5.7%	13.0%	1.2%	11.7%
1991	5.4%	1.0%	0.7%	1.0%	2.1%	18.8%	3.9%	1991	5.7%	9.6%	27.2%	4.9%	12.0%	0.9%	10.8%
1992	5.6%	0.9%	0.8%	1.0%	2.1%	18.7%	4.0%	1992	5.2%	9.1%	26.2%	4.8%	11.4%	0.8%	10.3%
1993	5.9%	0.9%	0.8%	0.9%	2.2%	18.9%	4.0%	1993	5.4%	9.8%	26.0%	5.7%	13.0%	1.2%	11.7%
1994	5.9%	1.0%	0.8%	1.0%	2.3%	18.9%	4.1%	1994	5.7%	10.6%	27.2%	4.9%	12.0%	0.9%	10.8%
1995	6.1%	1.1%	1.0%	1.0%	2.4%	18.8%	4.2%	1995	5.2%	9.1%	26.2%	4.8%	11.4%	0.8%	10.3%
1996	6.2%	1.0%	0.9%	0.9%	2.4%	18.6%	4.1%	1996	4.9%	8.8%	25.4%	4.7%	11.0%	0.7%	9.9%
1997	6.2%	1.0%	1.1%	1.0%	2.4%	18.6%	4.2%	1997	4.6%	8.6%	24.1%	4.8%	10.6%	0.7%	9.5%
1998	6.4%	1.0%	1.1%	1.1%	2.4%	18.6%	4.2%	1998	4.5%	8.4%	24.3%	4.6%	10.5%	0.5%	9.5%
1999	6.7%	1.0%	1.1%	1.1%	2.5%	18.5%	4.3%	1999	5.1%	8.6%	23.7%	4.9%	10.8%	0.7%	9.7%
2000	6.9%	1.0%	1.1%	1.2%	2.5%	18.6%	4.3%	2000	5.2%	8.8%	22.4%	5.1%	10.7%	0.6%	9.6%
2001	6.9%	1.0%	1.1%	1.2%	2.6%	18.7%	4.3%	2001	5.2%	9.5%	21.9%	5.3%	10.9%	0.6%	9.8%
2002	6.6%	1.0%	1.1%	1.1%	2.5%	14.3%	3.7%	2002	5.0%	10.3%	22.2%	5.3%	11.2%	0.6%	10.1%
2003	6.6%	1.0%	1.0%	1.2%	2.5%	14.0%	3.7%	2003	5.1%	11.1%	22.2%	5.6%	11.6%	0.6%	10.4%
2004	6.5%	1.0%	1.0%	1.2%	2.5%	13.9%	3.7%	2004	4.7%	11.6%	22.1%	5.4%	11.5%	0.6%	10.4%
2005	6.4%	0.9%	1.0%	1.3%	2.5%	13.8%	3.7%	2005	4.8%	11.7%	21.7%	5.3%	11.4%	0.6%	10.3%
Japan								World							
1989	0.3%	0.0%	0.1%	7.9%	0.8%	0.6%	0.8%	1989	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1990	0.2%	0.0%	0.1%	8.3%	0.9%	0.5%	0.8%	1990	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1991	0.2%	0.0%	0.1%	8.5%	0.9%	0.5%	0.9%	1991	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1992	0.2%	0.0%	0.1%	8.6%	0.9%	0.5%	0.9%	1992	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1993	0.2%	0.0%	0.1%	9.2%	1.0%	0.4%	1.0%	1993	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1994	0.2%	0.0%	0.1%	9.4%	1.0%	0.4%	1.0%	1994	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1995	0.2%	0.0%	0.1%	10.0%	1.1%	0.4%	1.0%	1995	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1996	0.2%	0.0%	0.1%	10.0%	1.1%	0.5%	1.0%	1996	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1997	0.1%	0.0%	0.1%	10.7%	1.2%	0.5%	1.1%	1997	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1998	0.1%	0.0%	0.1%	10.9%	1.2%	0.5%	1.1%	1998	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1999	0.1%	0.0%	0.1%	10.1%	1.1%	0.5%	1.1%	1999	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2000	0.1%	0.0%	0.1%	10.0%	1.1%	0.5%	1.0%	2000	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2001	0.1%	0.0%	0.1%	9.8%	1.1%	0.5%	1.0%	2001	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2002	0.0%	0.0%	0.1%	9.0%	1.0%	0.7%	1.0%	2002	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2003	0.0%	0.0%	0.1%	7.8%	0.8%	0.6%	0.8%	2003	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2004	0.0%	0.0%	0.1%	8.5%	0.9%	0.5%	0.9%	2004	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2005	0.0%	0.0%	0.1%	8.8%	0.9%	0.5%	0.9%	2005	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Primary electricity = nuclear + hydro + geothermal + solar/wind.

Source: IEA, 2007.

Figure 9B.1. Shares of Primary Energy Production by Energy Type, Selected Countries

1. 1992

2. 2001

3. 2005

Figure 9B.2. Shares of World Primary Energy Type Production by Country

1. 1992

2. 2001

3. 2005

Table 9B.2. World Total Primary Energy Supply/Primary Commerical Energy Consumption by Energy Type

1. Mtoe																			
Year	Solid ^[1]	Liquid ^[2]	Natural Gas	Electricity ^[3]	Commercial Energy Subtotal	Biomass	Total Consumption	population (Million)	Per Capita Consumption (kgoe/person)	Year	Solid ^[1]	Liquid ^[2]	Natural Gas	Electricity ^[3]	Commercial Energy Subtotal	Biomass	Total Consumption	population (Million)	Per Capita Consumption (kgoe/person)
China										USA									
1989	484.7	118.2	15.6	10.2	628.7	197.7	824.7	1,127.0	731.8	1989	459.2	779.9	443.9	181.4	1,864.3	69.0	1,960.4	247.0	7,936.8
1990	532.7	115.1	15.8	10.9	674.6	200.4	870.4	1,143.3	761.3	1990	458.3	783.6	439.4	197.2	1,878.5	62.3	1,927.6	250.0	7,711.8
1991	522.1	123.6	16.6	10.8	673.1	202.3	873.1	1,158.2	753.8	1991	453.1	773.9	459.6	208.7	1,895.2	65.6	1,943.3	252.6	7,692.2
1992	540.4	131.6	16.3	11.4	699.7	203.5	904.0	1,171.7	771.6	1992	458.8	786.6	468.7	208.3	1,922.3	73.4	1,981.8	255.4	7,760.4
1993	573.0	139.8	17.3	13.5	743.6	204.5	955.0	1,185.2	805.8	1993	474.6	810.1	481.9	209.0	1,975.5	66.8	2,021.3	258.1	7,832.0
1994	611.6	139.9	18.2	18.2	788.0	205.5	998.5	1,198.5	833.1	1994	480.6	816.9	491.7	215.3	2,004.5	68.4	2,062.3	260.6	7,913.6
1995	665.2	147.9	18.6	19.7	851.4	206.1	1,066.6	1,211.2	880.6	1995	478.1	819.6	508.5	226.6	2,032.8	70.6	2,088.5	263.0	7,939.9
1996	694.5	159.2	20.8	19.9	894.4	207.2	1,114.2	1,223.9	910.3	1996	501.0	841.0	504.3	230.9	2,077.2	72.1	2,140.9	265.5	8,064.8
1997	678.0	175.0	21.4	20.6	895.0	208.3	1,118.7	1,236.3	904.9	1997	515.9	867.5	508.0	215.9	2,107.3	70.3	2,163.8	268.0	8,073.7
1998	670.8	172.5	24.1	21.6	888.9	209.4	1,112.8	1,242.2	895.8	1998	518.0	872.8	499.8	225.6	2,116.2	71.7	2,182.0	275.2	7,929.9
1999	654.1	189.6	26.1	21.4	891.2	212.9	1,118.3	1,253.6	892.1	1999	521.9	867.7	525.2	242.1	2,156.9	75.5	2,247.8	278.7	8,066.0
2000	655.6	214.0	28.1	23.5	921.2	214.4	1,142.4	1,262.5	904.9	2000	541.7	888.6	548.8	244.7	2,223.8	73.2	2,303.8	282.2	8,163.1
2001	637.4	215.5	31.4	28.4	912.7	215.9	1,139.4	1,271.9	895.8	2001	544.7	895.0	517.4	242.7	2,199.8	71.2	2,281.4	285.3	7,996.0
2002	676.7	244.1	25.4	31.3	977.5	218.0	1,194.9	1,281.0	932.8	2002	542.2	900.2	537.2	243.3	2,222.8	65.0	2,289.8	288.4	7,940.5
2003	808.0	269.8	27.7	35.7	1,141.2	219.8	1,360.4	1,288.4	1,055.9	2003	531.2	921.4	519.8	240.0	2,212.4	69.8	2,282.8	290.8	7,850.1
2004	973.6	311.1	33.2	43.6	1,361.6	221.6	1,582.6	1,296.2	1,221.0	2004	548.8	947.5	512.1	246.5	2,254.9	72.7	2,328.6	293.6	7,930.0
2005	1,087.6	318.4	40.1	48.0	1,494.1	223.6	1,717.2	1,304.5	1,316.3	2005	555.7	952.8	509.4	246.2	2,264.2	74.0	2,340.3	296.5	7,892.9
India										Russian Federation									
1989	103.2	55.4	9.2	6.5	174.3	173.2	351.6	812.0	433.0	1989	132.2	262.4	364.2	46.3	805.1	12.4	774.8	148.3	5,224.3
1990	106.6	55.5	10.6	7.8	180.4	175.8	363.2	835.1	434.8	1990	133.4	236.3	355.9	46.4	771.9	11.8	746.3	148.2	5,037.3
1991	116.0	56.6	12.0	7.7	192.2	179.7	379.4	851.9	445.4	1991	125.4	192.7	327.6	40.9	686.6	8.7	651.5	148.0	4,403.1
1992	122.1	58.7	13.3	7.8	201.9	182.1	392.8	868.9	452.1	1992	116.7	189.3	316.5	41.4	663.9	8.5	628.4	148.1	4,242.0
1993	128.0	60.5	13.5	7.5	209.5	184.8	403.3	886.3	455.1	1993	118.9	182.0	318.2	42.0	661.1	6.9	616.6	147.7	4,173.5
1994	134.8	62.2	14.4	8.6	219.9	186.7	418.1	903.9	462.6	1994	106.7	170.3	310.9	41.4	642.1	6.5	595.1	147.1	4,045.9
1995	143.1	65.4	17.6	8.4	234.5	188.7	440.6	922.0	477.9	1995	109.1	175.1	314.5	45.9	644.6	7.5	603.0	146.3	4,121.6
1996	149.3	69.9	17.8	8.4	245.3	190.5	453.5	939.5	482.6	1996	110.8	183.8	318.9	48.6	662.2	6.9	614.0	145.6	4,218.2
1997	152.0	71.6	20.3	9.1	253.0	192.8	466.6	955.2	488.5	1997	106.7	181.8	311.5	42.1	642.1	6.5	595.1	147.1	4,045.9
1998	157.9	76.0	21.3	10.3	265.5	195.3	484.3	982.2	493.1	1998	107.0	170.3	310.9	41.4	623.3	5.8	581.4	146.9	3,957.7
1999	160.8	94.3	22.3	10.5	287.8	198.0	502.1	999.0	502.6	1999	109.1	175.1	314.5	45.9	644.6	7.5	603.0	146.3	4,121.6
2000	175.6	110.9	23.1	11.0	320.5	201.6	523.6	1,015.9	515.4	2000	110.8	183.8	318.9	48.6	662.2	6.9	614.0	145.6	4,218.2
2001	179.4	115.2	23.2	11.6	329.4	204.8	531.5	1,032.4	514.8	2001	106.6	188.9	325.2	51.1	671.8	6.9	621.3	144.8	4,292.5
2002	173.6	118.7	22.9	10.8	326.0	152.6	478.7	1,048.3	456.7	2002	106.7	128.3	325.6	51.4	612.0	6.9	617.8	144.1	4,288.1
2003	177.5	123.7	23.6	11.4	336.2	154.4	490.7	1,064.4	461.1	2003	107.4	131.5	342.5	53.2	634.7	6.2	639.7	144.6	4,423.7
2004	199.4	127.1	25.6	12.1	364.2	156.2	520.6	1,079.7	482.1	2004	104.2	130.8	346.6	53.5	635.1	7.0	641.5	143.8	4,459.6
2005	208.0	128.6	28.8	13.6	379.0	158.1	537.3	1,094.6	490.9	2005	103.4	133.4	349.6	54.5	640.8	6.9	646.7	143.2	4,517.5
Japan										World									
1989	73.2	179.5	40.6	56.7	350.0	5.5	415.9	123.0	3,381.1	1989	2,182.0	3,284.6	1,646.6	715.9	7,829.0	935.5	8,569.5	5,201.0	1,647.7
1990	74.0	199.6	43.3	61.9	378.7	4.4	436.5	123.5	3,535.2	1990	2,181.2	3,263.8	1,671.4	744.6	7,860.9	939.3	8,598.6	5,284.0	1,627.3
1991	76.6	208.5	46.5	65.6	397.2	4.5	446.4	124.0	3,601.2	1991	2,135.0	3,286.0	1,749.1	775.2	7,945.2	957.3	8,706.5	5,351.0	1,627.1
1992	75.1	219.7	47.3	66.9	408.9	4.5	454.8	124.4	3,655.3	1992	2,127.7	3,298.0	1,739.3	781.4	7,946.3	974.2	8,742.9	5,438.0	1,607.7
1993	76.6	220.8	47.8	74.7	419.9	4.3	458.9	124.8	3,676.1	1993	2,158.5	3,332.5	1,770.0	810.9	8,071.9	977.1	8,844.5	5,509.2	1,605.4
1994	78.8	233.8	51.2	77.9	441.6	4.2	481.2	125.2	3,844.2	1994	2,179.0	3,375.5	1,769.2	827.0	8,150.6	988.7	8,911.2	5,587.8	1,594.7
1995	82.6	231.1	52.0	86.0	451.7	4.5	495.3	125.5	3,947.9	1995	2,232.5	3,404.3	1,826.0	860.6	8,323.3	1,003.8	9,123.1	5,666.4	1,610.0
1996	84.6	229.2	56.1	89.2	459.1	4.7	508.7	125.8	4,045.2	1996	2,302.3	3,504.3	1,897.9	888.2	8,592.7	1,023.0	9,392.1	5,744.9	1,634.9
1997	86.5	234.2	57.2	94.5	472.4	4.9	515.3	126.1	4,087.4	1997	2,287.6	3,605.5	1,915.2	885.0	8,693.4	1,034.5	9,470.7	5,823.1	1,626.4
1998	84.6	227.8	59.6	98.8	470.8	5.4	511.2	126.4	4,043.7	1998	2,268.7	3,618.2	1,939.7	903.0	8,729.6	1,049.9	9,527.0	5,898.1	1,615.3
1999	87.6	223.5	62.1	94.0	467.2	5.5	515.6	126.7	4,071.1	1999	2,252.8	3,622.5	2,019.9	932.0	8,827.3	1,071.7	9,711.6	5,976.3	1,625.0
2000	95.7	218.8	65.9	95.2	475.6	5.8	524.2	126.9	4,132.0	2000	2,331.3	3,703.6	2,107.3	951.7	9,093.9	1,085.6	9,953.5	6,052.8	1,644.4
2001	100.2	213.4	64.8	94.4	472.8	5.2	520.7	127.0	4,099.1	2001	2,341.6	3,732.4	2,122.0	964.0	9,160.0	1,093.5	10,029.1	6,129.0	1,636.3
2002	103.4	256.2	66.5	87.9	514.0	5.8	519.9	127.1	4,088.9	2002	2,372.0	3,719.7	2,162.0	971.1	9,224.8	1,068.2	10,293.8	6,201.4	1,659.9
2003	106.4	256.9	71.3	74.6	509.2	6.1	515.3	127.7	4,034.9	2003	2,536.4	3,793.6	2,240.8	967.9	9,538.7	1,098.2	10,636.8	6,307.7	1,686.3
2004	116.5	253.6	70.6	85.5	526.2	6.1	532.3	127.8	4,166.1	2004	2,766.7	3,941.5	2,290.4	1,012.3	10,011.0	1,124.7	11,135.6	6,384.0	1,744.3
2005	112.1	251.7	70.5	89.9	524.2	6.3	530.5	127.8	4,151.6	2005	2,892.1	4,002.1	2,361.5	1,032.2	10,287.9	1,146.5	11,433.9	6,461.7	1,769.5

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Conversion factor for electricity is 0.123 kgco/kwh.

[4] Because of the different conversion factor used for primary electricity, the energy consumption figures for China in this table are lower than those found elsewhere in this volume.

Source: IEA, 2003.

Table 9B.2. Primary Energy Consumption by Energy Type (continued)

2. Mtce

			Natural		Commercial		Per Capita					Natural		Commercial		Per Capita	
Year	Solid ^[1]	Liquid ^[2]	Gas	Electricity ^[3]	Energy	Biomass	Total	Consumption	Year	Solid ^[1]	Liquid ^[2]	Gas	Electricity ^[3]	Energy	Biomass	Total	Consumption
China									USA								
1989	689.8	168.2	22.2	14.5	894.6	281.3	1,173.6	1,047.9	1989	657.6	1,116.8	635.7	259.7	2,669.7	98.8	2,807.3	11,365.5
1990	758.1	163.8	22.5	15.5	959.9	285.2	1,238.6	1,090.2	1990	656.3	1,122.1	629.2	282.4	2,689.9	89.1	2,760.3	11,043.3
1991	743.0	176.0	23.6	15.3	957.9	287.9	1,242.4	1,079.5	1991	648.8	1,108.2	658.1	298.8	2,713.9	93.9	2,782.9	11,015.2
1992	769.0	187.2	23.2	16.2	995.7	289.6	1,286.5	1,104.9	1992	656.9	1,126.4	671.2	298.2	2,752.7	105.1	2,837.9	11,112.9
1993	815.4	198.9	24.7	19.2	1,058.2	291.1	1,358.9	1,153.8	1993	679.7	1,160.0	690.0	299.2	2,829.0	95.7	2,894.5	11,215.4
1994	870.3	199.1	25.8	26.0	1,121.3	292.4	1,420.9	1,193.0	1994	688.2	1,169.7	704.1	308.3	2,870.4	98.0	2,953.2	11,332.2
1995	946.5	210.5	26.4	28.1	1,211.6	293.3	1,517.8	1,261.0	1995	684.6	1,173.7	728.2	324.5	2,911.0	101.1	2,990.8	11,370.0
1996	988.3	226.6	29.6	28.3	1,272.7	294.8	1,585.4	1,303.6	1996	717.4	1,204.4	722.1	330.6	2,974.5	103.2	3,065.7	11,548.8
1997	964.8	249.0	30.5	29.3	1,273.6	296.4	1,592.0	1,295.9	1997	738.7	1,242.3	727.4	309.2	3,017.7	100.7	3,098.6	11,561.6
1998	954.5	245.4	34.3	30.7	1,264.9	297.9	1,583.5	1,282.8	1998	741.7	1,249.9	715.7	323.0	3,030.4	102.7	3,124.6	11,355.6
1999	930.7	269.9	37.1	30.5	1,268.2	303.0	1,591.3	1,277.4	1999	747.4	1,242.6	752.1	346.7	3,088.7	108.1	3,218.8	11,550.5
2000	932.9	304.5	40.0	33.4	1,310.9	305.1	1,625.7	1,295.9	2000	775.6	1,272.5	785.9	350.4	3,184.5	104.8	3,299.1	11,689.5
2001	907.0	306.7	44.6	40.4	1,298.7	307.3	1,621.3	1,282.8	2001	780.0	1,281.6	740.9	347.5	3,150.1	102.0	3,267.0	11,450.3
2002	963.0	347.3	36.1	44.6	1,391.0	310.2	1,700.3	1,327.4	2002	776.4	1,289.1	769.3	348.4	3,183.1	93.1	3,279.0	11,299.4
2003	1,149.8	383.9	39.5	50.8	1,624.0	312.8	1,936.8	1,502.5	2003	760.6	1,319.5	744.3	343.7	3,168.2	100.0	3,268.9	11,170.7
2004	1,385.5	442.7	47.3	62.0	1,937.5	315.3	2,252.1	1,737.5	2004	785.8	1,356.8	733.4	353.0	3,229.0	104.1	3,334.5	11,284.4
2005	1,547.7	453.1	57.1	68.3	2,126.1	318.1	2,443.5	1,873.1	2005	795.7	1,364.5	729.5	352.6	3,242.3	106.0	3,351.3	11,231.5
India									Russian Federation								
1989	146.8	78.8	13.2	9.3	248.0	246.5	500.3	620.0	1992	189.4	375.7	521.5	66.3	1,153.0	17.8	1,109.5	7,481.3
1990	151.6	79.0	15.0	11.1	256.7	250.2	516.8	622.7	1993	191.0	338.3	509.6	66.4	1,105.4	16.9	1,068.7	7,213.4
1991	165.0	80.5	17.0	11.0	273.5	255.8	539.9	637.8	1994	179.6	275.9	469.1	58.6	983.2	12.4	933.0	6,305.2
1992	173.7	83.5	19.0	11.1	287.3	259.1	558.9	647.3	1995	167.1	271.1	453.3	59.2	950.7	12.2	899.9	6,074.5
1993	182.1	86.1	19.2	10.6	298.1	262.9	573.9	651.6	1996	170.3	260.6	455.7	60.1	946.7	9.9	883.0	5,976.4
1994	191.8	88.5	20.4	12.2	312.9	265.7	595.0	662.4	1997	152.8	260.4	446.0	60.3	919.5	9.4	852.3	5,793.7
1995	203.7	93.1	25.0	11.9	333.6	268.5	627.0	684.4	1998	144.2	243.9	445.2	59.3	892.6	8.3	832.5	5,667.5
1996	212.4	99.4	25.3	11.9	349.1	271.0	645.3	691.1	1999	156.2	250.8	450.3	65.8	923.1	10.8	863.5	5,902.2
1997	216.2	102.0	28.9	13.0	360.1	274.4	664.0	699.5	2000	158.7	263.3	456.7	69.6	948.2	9.9	879.2	6,040.5
1998	224.7	108.1	30.3	14.7	377.9	277.9	689.1	706.1	2001	152.6	270.5	465.7	73.2	962.0	9.8	889.8	6,146.9
1999	228.8	134.2	31.7	15.0	409.6	281.8	714.5	719.7	2002	152.9	183.8	466.2	73.5	876.4	9.9	884.7	6,102.0
2000	249.9	157.8	32.8	15.6	456.1	286.9	745.0	738.0	2003	153.8	188.3	490.5	76.2	908.8	8.8	916.0	6,294.9
2001	255.3	163.9	33.0	16.5	468.7	291.5	756.3	737.2	2004	149.2	187.3	496.3	76.7	909.5	10.1	918.6	6,346.0
2002	247.1	168.8	32.6	15.4	463.9	217.2	681.2	649.9	2005	148.1	191.1	500.6	78.0	917.7	9.9	926.0	6,428.4
2003	252.6	176.0	33.5	16.3	478.4	219.7	698.3	656.1									
2004	283.8	180.9	36.4	17.2	518.3	222.2	740.8	686.1									
2005	296.0	183.0	41.0	19.4	539.4	225.0	764.6	698.5									
Japan									World								
1989	104.1	255.4	57.8	80.7	498.0	7.8	591.8	4,841.8	1989	3,124.6	4,703.5	2,357.9	1,025.1	11,211.2	1,339.7	12,271.5	2,359.5
1990	105.3	284.0	61.6	88.1	538.9	6.3	621.2	5,062.4	1990	3,123.5	4,673.7	2,393.4	1,066.2	11,256.8	1,345.1	12,313.2	2,330.3
1991	109.0	296.7	66.2	93.3	565.2	6.5	635.2	5,156.8	1991	3,057.3	4,705.5	2,504.7	1,110.1	11,377.6	1,370.8	12,467.7	2,330.0
1992	106.9	312.6	67.3	95.1	581.9	6.4	647.2	5,234.4	1992	3,046.8	4,722.7	2,490.6	1,118.9	11,379.1	1,395.1	12,519.8	2,302.3
1993	109.0	314.2	68.0	106.4	597.6	6.2	653.0	5,264.2	1993	3,091.0	4,772.1	2,534.6	1,161.1	11,558.9	1,399.2	12,665.3	2,299.0
1994	112.1	332.7	72.8	110.8	628.4	6.0	684.8	5,504.9	1994	3,120.3	4,833.7	2,533.5	1,184.2	11,671.7	1,415.8	12,760.8	2,283.7
1995	117.5	328.9	74.0	122.3	642.7	6.4	704.9	5,653.4	1995	3,196.9	4,874.9	2,614.8	1,232.3	11,918.9	1,437.5	13,064.2	2,305.6
1996	120.4	326.2	79.8	126.9	653.2	6.6	723.9	5,792.7	1996	3,296.9	5,018.2	2,717.8	1,272.0	12,304.8	1,465.0	13,449.5	2,341.1
1997	123.1	333.2	81.5	134.4	672.3	7.0	733.3	5,853.1	1997	3,275.9	5,163.1	2,742.6	1,267.4	12,449.0	1,481.4	13,562.0	2,329.0
1998	120.4	324.2	84.8	140.6	669.9	7.7	727.4	5,790.6	1998	3,248.8	5,181.2	2,777.6	1,293.1	12,500.8	1,503.4	13,642.7	2,313.1
1999	124.6	318.0	88.4	133.8	664.9	7.8	733.7	5,829.9	1999	3,226.1	5,187.4	2,892.5	1,334.7	12,640.7	1,534.7	13,907.0	2,327.0
2000	136.2	311.3	93.7	135.5	676.8	8.2	746.0	5,917.0	2000	3,338.4	5,303.6	3,017.6	1,362.8	13,022.4	1,554.6	14,253.4	2,354.8
2001	142.6	303.7	92.2	134.3	672.8	7.5	741.0	5,869.9	2001	3,353.2	5,344.8	3,038.7	1,380.4	13,117.2	1,565.9	14,361.7	2,343.2
2002	147.1	364.6	94.7	125.1	731.5	8.3	739.8	5,818.5	2002	3,396.7	5,326.6	3,096.0	1,390.6	13,209.9	1,529.7	14,740.8	2,362.1
2003	151.5	365.5	101.5	106.2	724.6	8.7	733.3	5,741.6	2003	3,632.1	5,432.4	3,208.9	1,386.0	13,659.4	1,572.6	15,231.9	2,399.6
2004	165.8	360.9	100.4	121.7	748.7	8.7	757.4	5,928.3	2004	3,962.0	5,644.2	3,279.9	1,449.7	14,335.7	1,610.6	15,946.2	2,482.2
2005	159.5	358.2	100.4	127.9	745.9	9.0	754.8	5,907.7	2005	4,141.5	5,731.0	3,381.7	1,478.1	14,732.3	1,641.8	16,373.4	2,518.0

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Conversion factor for electricity is 0.123 kgce/kwh.

[4] Because of the different conversion factor used for primary electricity, the energy consumption figures for China in this table are lower than those found elsewhere in this volume.

Source: IEA, 2003.

Table 9B.2. Primary Energy Consumption by Energy Type (continued)

3. Energy Source Shares of Country Primary Consumption

Commercial								Commercial							
Year	Solid ^[1]	Liquid ^[2]	Natural Gas	Electricity ^[3]	Energy Subtotal	Biomass	Total Consumption	Year	Solid ^[1]	Liquid ^[2]	Natural Gas	Electricity ^[3]	Energy Subtotal	Biomass	Total Consumption
China								USA							
1989	58.8%	14.3%	1.9%	1.2%	76.2%	24.0%	100.0%	1989	23.4%	39.8%	22.6%	9.3%	95.1%	3.5%	100.0%
1990	61.2%	13.2%	1.8%	1.3%	77.5%	23.0%	100.0%	1990	23.8%	40.6%	22.8%	10.2%	97.5%	3.2%	100.0%
1991	59.8%	14.2%	1.9%	1.2%	77.1%	23.2%	100.0%	1991	23.3%	39.8%	23.6%	10.7%	97.5%	3.4%	100.0%
1992	59.8%	14.6%	1.8%	1.3%	77.4%	22.5%	100.0%	1992	23.1%	39.7%	23.7%	10.5%	97.0%	3.7%	100.0%
1993	60.0%	14.6%	1.8%	1.4%	77.9%	21.4%	100.0%	1993	23.5%	40.1%	23.8%	10.3%	97.7%	3.3%	100.0%
1994	61.3%	14.0%	1.8%	1.8%	78.9%	20.6%	100.0%	1994	23.3%	39.6%	23.8%	10.4%	97.2%	3.3%	100.0%
1995	62.4%	13.9%	1.7%	1.9%	79.8%	19.3%	100.0%	1995	22.9%	39.2%	24.3%	10.9%	97.3%	3.4%	100.0%
1996	62.3%	14.3%	1.9%	1.8%	80.3%	18.6%	100.0%	1996	23.4%	39.3%	23.6%	10.8%	97.0%	3.4%	100.0%
1997	60.6%	15.6%	1.9%	1.8%	80.0%	18.6%	100.0%	1997	23.8%	40.1%	23.5%	10.0%	97.4%	3.2%	100.0%
1998	60.3%	15.5%	2.2%	1.9%	79.9%	18.8%	100.0%	1998	23.7%	40.0%	22.9%	10.3%	97.0%	3.3%	100.0%
1999	58.5%	17.0%	2.3%	1.9%	79.7%	19.0%	100.0%	1999	23.2%	38.6%	23.4%	10.8%	96.0%	3.4%	100.0%
2000	57.4%	18.7%	2.5%	2.1%	80.6%	18.8%	100.0%	2000	23.5%	38.6%	23.8%	10.6%	96.5%	3.2%	100.0%
2001	55.9%	18.9%	2.8%	2.5%	80.1%	19.0%	100.0%	2001	23.9%	39.2%	22.7%	10.6%	96.4%	3.1%	100.0%
2002	56.6%	20.4%	2.1%	2.6%	81.8%	18.2%	100.0%	2002	23.7%	39.3%	23.5%	10.6%	97.1%	2.8%	100.0%
2003	59.4%	19.8%	2.0%	2.6%	83.9%	16.2%	100.0%	2003	23.3%	40.4%	22.8%	10.5%	96.9%	3.1%	100.0%
2004	61.5%	19.7%	2.1%	2.8%	86.0%	14.0%	100.0%	2004	23.6%	40.7%	22.0%	10.6%	96.8%	3.1%	100.0%
2005	63.3%	18.5%	2.3%	2.8%	87.0%	13.0%	100.0%	2005	23.7%	40.7%	21.8%	10.5%	96.7%	3.2%	100.0%
India								Russian Federation							
1989	29.3%	15.7%	2.6%	1.9%	49.6%	49.3%	100.0%	1989	17.1%	33.9%	47.0%	6.0%	103.9%	1.6%	100.0%
1990	29.3%	15.3%	2.9%	2.1%	49.7%	48.4%	100.0%	1990	17.9%	31.7%	47.7%	6.2%	103.4%	1.6%	100.0%
1991	30.6%	14.9%	3.2%	2.0%	50.6%	47.4%	100.0%	1991	19.2%	29.6%	50.3%	6.3%	105.4%	1.3%	100.0%
1992	31.1%	14.9%	3.4%	2.0%	51.4%	46.4%	100.0%	1992	18.6%	30.1%	50.4%	6.6%	105.6%	1.4%	100.0%
1993	31.7%	15.0%	3.4%	1.9%	51.9%	45.8%	100.0%	1993	19.3%	29.5%	51.6%	6.8%	107.2%	1.1%	100.0%
1994	32.2%	14.9%	3.4%	2.1%	52.6%	44.7%	100.0%	1994	17.9%	30.6%	52.3%	7.1%	107.9%	1.1%	100.0%
1995	32.5%	14.8%	4.0%	1.9%	53.2%	42.8%	100.0%	1995	18.6%	30.1%	50.4%	6.6%	105.6%	1.4%	100.0%
1996	32.9%	15.4%	3.9%	1.8%	54.1%	42.0%	100.0%	1996	19.3%	29.5%	51.6%	6.8%	107.2%	1.1%	100.0%
1997	32.6%	15.4%	4.4%	2.0%	54.2%	41.3%	100.0%	1997	17.9%	30.6%	52.3%	7.1%	107.9%	1.1%	100.0%
1998	32.6%	15.7%	4.4%	2.1%	54.8%	40.3%	100.0%	1998	17.3%	29.3%	53.5%	7.1%	107.2%	1.0%	100.0%
1999	32.0%	18.8%	4.4%	2.1%	57.3%	39.4%	100.0%	1999	18.1%	29.0%	52.1%	7.6%	106.9%	1.2%	100.0%
2000	33.5%	21.2%	4.4%	2.1%	61.2%	38.5%	100.0%	2000	18.0%	29.9%	51.9%	7.9%	107.8%	1.1%	100.0%
2001	33.8%	21.7%	4.4%	2.2%	62.0%	38.5%	100.0%	2001	17.2%	30.4%	52.3%	8.2%	108.1%	1.1%	100.0%
2002	36.3%	24.8%	4.8%	2.3%	68.1%	31.9%	100.0%	2002	17.3%	20.8%	52.7%	8.3%	99.1%	1.1%	100.0%
2003	36.2%	25.2%	4.8%	2.3%	68.5%	31.5%	100.0%	2003	16.8%	20.6%	53.5%	8.3%	99.2%	1.0%	100.0%
2004	38.3%	24.4%	4.9%	2.3%	70.0%	30.0%	100.0%	2004	16.2%	20.4%	54.0%	8.3%	99.0%	1.1%	100.0%
2005	38.7%	23.9%	5.4%	2.5%	70.5%	29.4%	100.0%	2005	16.0%	20.6%	54.1%	8.4%	99.1%	1.1%	100.0%
Japan								World							
1989	17.6%	43.1%	9.8%	13.6%	84.1%	1.3%	100.0%	1989	25.5%	38.3%	19.2%	8.4%	91.4%	10.9%	100.0%
1990	16.9%	45.7%	9.9%	14.2%	86.8%	1.0%	100.0%	1990	25.4%	38.0%	19.4%	8.7%	91.4%	10.9%	100.0%
1991	17.2%	46.7%	10.4%	14.7%	89.0%	1.0%	100.0%	1991	24.5%	37.7%	20.1%	8.9%	91.3%	11.0%	100.0%
1992	16.5%	48.3%	10.4%	14.7%	89.9%	1.0%	100.0%	1992	24.3%	37.7%	19.9%	8.9%	90.9%	11.1%	100.0%
1993	16.7%	48.1%	10.4%	16.3%	91.5%	0.9%	100.0%	1993	24.4%	37.7%	20.0%	9.2%	91.3%	11.0%	100.0%
1994	16.4%	48.6%	10.6%	16.2%	91.8%	0.9%	100.0%	1994	24.5%	37.9%	19.9%	9.3%	91.5%	11.1%	100.0%
1995	16.7%	46.7%	10.5%	17.4%	91.2%	0.9%	100.0%	1995	24.5%	37.3%	20.0%	9.4%	91.2%	11.0%	100.0%
1996	16.6%	45.1%	11.0%	17.5%	90.2%	0.9%	100.0%	1996	24.5%	37.3%	20.2%	9.5%	91.5%	10.9%	100.0%
1997	16.8%	45.4%	11.1%	18.3%	91.7%	1.0%	100.0%	1997	24.2%	38.1%	20.2%	9.3%	91.8%	10.9%	100.0%
1998	16.6%	44.6%	11.7%	19.3%	92.1%	1.1%	100.0%	1998	23.8%	38.0%	20.4%	9.5%	91.6%	11.0%	100.0%
1999	17.0%	43.3%	12.0%	18.2%	90.6%	1.1%	100.0%	1999	23.2%	37.3%	20.8%	9.6%	90.9%	11.0%	100.0%
2000	18.3%	41.7%	12.6%	18.2%	90.7%	1.1%	100.0%	2000	23.4%	37.2%	21.2%	9.6%	91.4%	10.9%	100.0%
2001	19.2%	41.0%	12.4%	18.1%	90.8%	1.0%	100.0%	2001	23.3%	37.2%	21.2%	9.6%	91.3%	10.9%	100.0%
2002	19.9%	49.3%	12.8%	16.9%	98.9%	1.1%	100.0%	2002	23.0%	36.1%	21.0%	9.4%	89.6%	10.4%	100.0%
2003	20.7%	49.8%	13.8%	14.5%	98.8%	1.2%	100.0%	2003	23.8%	35.7%	21.1%	9.1%	89.7%	10.3%	100.0%
2004	21.9%	47.6%	13.3%	16.1%	98.9%	1.1%	100.0%	2004	24.8%	35.4%	20.6%	9.1%	89.9%	10.1%	100.0%
2005	21.1%	47.4%	13.3%	16.9%	98.8%	1.2%	100.0%	2005	25.3%	35.0%	20.7%	9.0%	90.0%	10.0%	100.0%

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Conversion factor for electricity is 0.123 kgco/kwh.

[4] Because of the different conversion factor used for primary electricity, the energy consumption figures for China in this table are lower than those found elsewhere in this volume.

Source: IEA, 2003.

Table 9B.2. Primary Energy Consumption by Energy Type (continued)

4. Country Shares of World Primary Consumption

[1] Hard coal, lignite, peat, and oil shale.

[2] Crude oil, natural gas liquids and feedstocks.

[3] Conversion factor for electricity is 0.123 kgce/kwh.

[4] Because of the different conversion factor used for primary electricity, the energy consumption figures for China in this table are lower than those found elsewhere in this volume.

Source: IEA, 2007.

Figure 9B.3. Shares of Primary Energy Consumption by Energy Type

Figure 9B.4. Shares of World Primary Energy Consumption by Country

Figure 9B.5. Per Capita Primary Energy Consumption in 1989, 2001, and 2005

[1] Comparison years for the Russian Federation are 1992 and 2001.

Table 9B.3. World Primary Coal Consumption, Selected Years

1. Mtce

Country	1970	1985	1990	1998	1999	2000	2001	2002	2003	2004	2005
China	237	583	752	925	931	933	907	963	1150	1385	1548
India	53	109	146	229	229	250	255	247	253	284	296
Japan	86	105	109	121	125	136	143	147	151	166	159
USA	471	629	688	734	743	771	775	771	756	781	791
FSU/ Russian Federation [1]	420	461	440	136	155	158	152	152	153	148	147
Rest of World	887	1,073	1,065	1,018	1,024	1,070	1,101	1,095	1,147	1,173	1,175
Total	2,154	2,961	3,199	3,163	3,206	3,317	3,332	3,375	3,609	3,937	4,115

2. Shares

Country	1970	1985	1990	1998	1999	2000	2001	2002	2003	2004	2005
China	11%	20%	24%	29%	29%	28%	27%	29%	32%	35%	38%
India	2%	4%	5%	0%	7%	8%	8%	7%	7%	7%	7%
Japan	4%	4%	3%	4%	4%	4%	4%	4%	4%	4%	4%
USA	22%	21%	21%	23%	23%	23%	23%	23%	21%	20%	19%
FSU/ Russian Federation [1]	19%	16%	14%	4%	5%	5%	5%	5%	4%	4%	4%
Rest of World	41%	36%	33%	32%	32%	32%	33%	32%	32%	30%	29%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

[1] 1970 - 1990 data are for the former Soviet Union, later data are for the Russian Federation.

Source: China: other tables in this volume; Other countries: IEA, 2003.

Figure 9B.6. International Coal Consumption Shares

1970
2,154 Mtce

1990

2001

2005
4,115 Mtce

Table 9B.4. Intensity Trends: Primary Commercial Energy Consumption per Unit GDP

1. China

Year	Primary Energy Consumption (million tce)	Primary Energy Consumption (million toe)	GDP (billion 2000 US dollars)	Intensity (tce per thousand 1995 US dollars)	Intensity Indices 1980=1
1980	847.57	593.12	182.08	4.65	1.00
1981	841.96	589.19	191.55	4.40	0.94
1982	867.91	607.35	208.98	4.15	0.89
1983	901.87	631.12	231.76	3.89	0.84
1984	955.82	668.88	266.99	3.58	0.77
1985	1,008.24	705.56	303.03	3.33	0.71
1986	1,055.47	738.61	329.70	3.20	0.69
1987	1,109.76	776.60	367.94	3.02	0.65
1988	1,165.39	815.53	409.52	2.85	0.61
1989	1,173.59	824.73	426.31	2.75	0.59
1990	1,238.64	870.44	442.51	2.80	0.60
1991	1,242.40	873.09	483.22	2.57	0.55
1992	1,286.45	904.04	551.83	2.33	0.50
1993	1,358.91	954.96	629.09	2.16	0.46
1994	1,420.88	998.51	711.50	2.00	0.43
1995	1,517.79	1,066.61	789.06	1.92	0.41
1996	1,585.44	1,114.15	867.96	1.83	0.39
1997	1,591.96	1,118.74	948.68	1.68	0.36
1998	1,583.47	1,112.77	1,022.68	1.55	0.33
1999	1,591.32	1,118.29	1,100.40	1.45	0.31
2000	1,625.69	1,142.44	1,192.84	1.36	0.29
2001	1,621.32	1,139.37	1,291.84	1.26	0.27
2002	1,700.33	1,194.89	1,409.40	1.21	0.26
2003	1,965.59	1,381.30	1,550.34	1.27	0.27
2004	2,252.06	1,582.61	1,706.93	1.32	0.28
2005	2,443.51	1,717.15	1,875.91	1.30	0.28

2. India

Year	Primary Energy Consumption (million tce)	Primary Energy Consumption (million toe)	GDP (billion 2000 US dollars)	Intensity (tce per thousand 2000 US dollars)	Intensity Indices 1980=1
1980	346.66	242.59	156.42	2.22	1.00
1981	365.52	255.79	166.37	2.20	0.99
1982	374.87	262.33	172.45	2.17	0.98
1983	388.33	271.75	184.66	2.10	0.95
1984	399.28	279.42	192.28	2.08	0.94
1985	420.68	294.39	203.10	2.07	0.93
1986	439.38	307.47	212.92	2.06	0.93
1987	456.57	319.50	222.01	2.06	0.93
1988	479.89	335.82	243.90	1.97	0.89
1989	500.31	351.59	259.61	1.93	0.87
1990	516.77	363.15	274.70	1.88	0.85
1991	539.94	379.44	277.19	1.95	0.88
1992	558.94	392.79	291.80	1.92	0.86
1993	573.88	403.29	306.01	1.88	0.85
1994	595.00	418.13	328.85	1.81	0.82
1995	627.03	440.64	353.99	1.77	0.80
1996	645.27	453.46	380.17	1.70	0.77
1997	663.95	466.59	397.19	1.67	0.75
1998	689.12	484.28	420.97	1.64	0.74
1999	714.52	502.12	450.98	1.58	0.71
2000	745.02	523.56	468.98	1.59	0.72
2001	756.26	531.45	493.73	1.53	0.69
2002	681.24	478.73	511.65	1.33	0.60
2003	780.74	548.66	554.02	1.41	0.64
2004	740.77	520.57	601.26	1.23	0.56
2005	764.59	537.31	653.45	1.17	0.53

Sources: GDP data from EIA, 2008; energy consumption data from IEA, 2007.

Table 9B.4. Intensity Trends: Primary Commercial Energy Consumption per Unit GDP (continued)

3. Japan

Year	Primary Energy Consumption (million tce)	Primary Energy Consumption (million toe)	GDP (billion 2000 US dollars)	Intensity (tce per thousand 1995 US dollars)	Intensity Indices 1980=1
1980	495.14	346.49	2,809.77	0.18	1.00
1981	482.42	337.59	2,893.79	0.17	0.95
1982	485.13	339.49	2,974.26	0.16	0.93
1983	486.09	340.16	3,022.95	0.16	0.91
1984	522.98	365.98	3,115.71	0.17	0.95
1985	524.48	367.03	3,273.64	0.16	0.91
1986	530.82	371.46	3,372.34	0.16	0.89
1987	537.17	375.91	3,498.16	0.15	0.87
1988	573.89	401.60	3,736.89	0.15	0.87
1989	591.80	415.88	3,934.34	0.15	0.85
1990	621.17	436.52	4,141.45	0.15	0.85
1991	635.23	446.40	4,279.55	0.15	0.84
1992	647.18	454.80	4,320.28	0.15	0.85
1993	653.00	458.89	4,328.92	0.15	0.86
1994	684.78	481.22	4,348.56	0.16	0.89
1995	704.88	495.35	4,429.86	0.16	0.90
1996	723.91	508.72	4,547.06	0.16	0.90
1997	733.27	515.30	4,610.19	0.16	0.90
1998	727.39	511.17	4,524.55	0.16	0.91
1999	733.71	515.61	4,519.54	0.16	0.92
2000	745.98	524.23	4,650.78	0.16	0.91
2001	741.00	520.73	4,667.67	0.16	0.90
2002	739.78	519.88	4,674.24	0.16	0.90
2003	734.42	516.11	4,759.34	0.15	0.88
2004	757.41	532.26	4,867.38	0.16	0.88
2005	754.85	530.46	4,995.01	0.15	0.86

4. United States

Year	Primary Energy Consumption (million tce)	Primary Energy Consumption (million toe)	GDP (billion 2000 US dollars)	Intensity (tce per thousand 2000 US dollars)	Intensity Indices 1980=1
1980	2,588.85	1,811.65	5,161.68	0.50	1.00
1981	2,517.39	1,761.65	5,291.70	0.48	0.95
1982	2,412.33	1,688.13	5,189.25	0.46	0.93
1983	2,415.34	1,690.23	5,423.75	0.45	0.89
1984	2,519.12	1,762.85	5,813.60	0.43	0.86
1985	2,546.06	1,781.71	6,053.75	0.42	0.84
1986	2,548.13	1,783.16	6,263.63	0.41	0.81
1987	2,656.80	1,859.21	6,475.05	0.41	0.82
1988	2,761.50	1,932.47	6,742.65	0.41	0.82
1989	2,789.64	1,960.39	6,981.40	0.40	0.80
1990	2,742.93	1,927.57	7,112.53	0.39	0.77
1991	2,765.38	1,943.35	7,100.53	0.39	0.78
1992	2,820.07	1,981.78	7,336.58	0.38	0.77
1993	2,876.29	2,021.29	7,532.65	0.38	0.76
1994	2,934.61	2,062.27	7,835.48	0.37	0.75
1995	2,971.96	2,088.52	8,031.70	0.37	0.74
1996	3,046.47	2,140.88	8,328.90	0.37	0.73
1997	3,079.14	2,163.84	8,703.50	0.35	0.71
1998	3,104.95	2,181.97	9,066.88	0.34	0.68
1999	3,198.60	2,247.79	9,470.35	0.34	0.67
2000	3,278.32	2,303.81	9,816.95	0.33	0.67
2001	3,246.45	2,281.41	9,890.65	0.33	0.65
2002	3,258.39	2,289.80	10,048.85	0.32	0.65
2003	3,245.69	2,280.88	10,301.10	0.32	0.63
2004	3,313.53	2,328.56	10,703.50	0.31	0.62
2005	3,330.23	2,340.29	11,048.63	0.30	0.60

Sources: GDP data from EIA, 2008; energy consumption data from IEA, 2007.

Figure 9B.7. Energy Intensity Trends, Selected Countries, 1980-2005

Table 9B.5. End-Use Energy Consumption by Sector for Selected Countries

A. 1998

1. Commercial Energy Only, Mtoe

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	352.37	30.62	65.12	22.86	78.37	141.09	690.43
India	75.76	8.48	42.40	3.58	31.97	45.44	207.62
Japan	126.68	10.76	92.64	43.63	47.83	102.23	423.77
USA	359.52	14.67	580.38	178.84	232.42	425.93	1,791.76
Russian Federation	128.61	14.96	82.88	24.37	129.48	172.93	553.23

2. Commercial Energy Only, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	51.0%	4.4%	9.4%	3.3%	11.4%	20.4%	100.0%
India	36.5%	4.1%	20.4%	1.7%	15.4%	21.9%	100.0%
Japan	29.9%	2.5%	21.9%	10.3%	11.3%	24.1%	100.0%
USA	20.1%	0.8%	32.4%	10.0%	13.0%	23.8%	100.0%
Russian Federation	23.2%	2.7%	15.0%	4.4%	23.4%	31.3%	100.0%

3. Commercial and Non-Hydro Renewable Energy, Mtoe

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	352.37	30.62	65.12	22.86	286.46	349.18	1,106.61
India	98.00	8.48	42.40	3.58	205.01	218.48	575.94
Japan	129.07	10.76	92.64	43.65	48.87	103.29	428.28
USA	374.04	14.67	582.12	179.97	244.04	439.12	1,833.97
Russian Federation	129.13	15.00	82.88	24.49	131.55	175.17	558.23

4. Commercial and Non-hydro Renewable Energy, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	32%	3%	6%	2%	26%	32%	100%
India	17%	1%	7%	1%	36%	38%	100%
Japan	30%	3%	22%	10%	11%	24%	100%
USA	20%	1%	32%	10%	13%	24%	100%
Russian Federation	23%	3%	15%	4%	24%	31%	100%

N.B. In subtable 1, commercial energy does not include non-hydro renewables. Non-hydro renewables include combustible renewables and waste, geothermal, wind, and solar.

Source: IEA, 2000.

Table 9B.5. End-Use Energy Consumption by Sector for Selected Countries (continued)

B. 2001

1. Commercial Energy Only, Mtoe (= Solids+Liquids+Gas+Electricity)

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	314.07	32.84	75.98	28.89	85.46	158.11	695.35
India	77.21	7.65	44.56	3.31	33.04	45.83	211.58
Japan	120.71	6.65	96.08	57.86	45.83	113.65	440.77
USA	368.77	15.69	607.47	186.55	244.29	446.53	1,869.30
Russian Federation	147.99	12.83	82.50	19.80	143.89	185.75	592.77

2. Commercial Energy Only, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	45.2%	4.7%	10.9%	4.2%	12.3%	22.7%	100.0%
India	36.5%	3.6%	21.1%	1.6%	15.6%	21.7%	100.0%
Japan	27.4%	1.5%	21.8%	13.1%	10.4%	25.8%	100.0%
USA	19.7%	0.8%	32.5%	10.0%	13.1%	23.9%	100.0%
Russian Federation	25.0%	2.2%	13.9%	3.3%	24.3%	31.3%	100.0%

3. Commercial and Non-Hydro Renewable Energy, Mtoe

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	314.07	32.84	75.98	28.89	300.06	372.71	1,124.55
India	99.50	7.65	44.56	3.31	214.54	227.33	596.88
Japan	122.90	6.65	96.08	57.88	46.61	114.45	444.56
USA	403.76	15.69	609.17	187.76	255.63	460.65	1,932.66
Russian Federation	148.44	12.98	82.50	19.81	145.90	188.13	597.77

4. Commercial and Non-hydro Renewable Energy, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	28%	3%	7%	3%	27%	33%	100%
India	17%	1%	7%	1%	36%	38%	100%
Japan	28%	1%	22%	13%	10%	26%	100%
USA	21%	1%	32%	10%	13%	24%	100%
Russian Federation	25%	2%	14%	3%	24%	31%	100%

Source: IEA, 2003.

Table 9B.5. End-Use Energy Consumption by Sector for Selected Countries (continued)

2004

1. Commercial Energy Only, Mtoe (= Solids+Liquids+Gas+Electricity)

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	294.65	32.46	101.67	28.01	68.57	121.26	646.62
India	48.41	5.93	36.08	2.80	23.83	36.76	153.81
Japan	62.33	3.32	92.98	36.76	24.75	42.65	262.79
USA	184.42	17.01	631.50	92.42	145.73	164.88	1,235.96
Russian Federation	49.90	4.94	87.76	3.88	52.22	37.94	236.64

2. Commercial Energy Only, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	45.6%	5.0%	15.7%	4.3%	10.6%	18.8%	100.0%
India	31.5%	3.9%	23.5%	1.8%	15.5%	23.9%	100.0%
Japan	23.7%	1.3%	35.4%	14.0%	9.4%	16.2%	100.0%
USA	14.9%	1.4%	51.1%	7.5%	11.8%	13.3%	100.0%
Russian Federation	21.1%	2.1%	37.1%	1.6%	22.1%	16.0%	100.0%

3. Commercial and Non-Hydro Renewable Energy, Mtoe

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	294.65	32.46	101.67	28.01	288.79	121.26	866.84
India	75.35	5.93	36.09	8.69	146.09	36.76	308.91
Japan	64.66	3.32	92.98	36.76	24.78	42.65	265.15
USA	214.86	17.04	638.46	94.53	155.54	164.88	1,285.31
Russian Federation	50.62	5.06	87.76	3.89	53.75	38.18	239.27

4. Commercial and Non-hydro Renewable Energy, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	34%	4%	12%	3%	33%	14%	100%
India	24%	2%	12%	3%	47%	12%	100%
Japan	24%	1%	35%	14%	9%	16%	100%
USA	17%	1%	50%	7%	12%	13%	100%
Russian Federation	21%	2%	37%	2%	22%	16%	100%

Source: IEA, 2007.

Table 9B.5. End-Use Energy Consumption by Sector for Selected Countries (continued)

2005

1. Commercial Energy Only, Mtoe (= Solids+Liquids+Gas+Electricity)

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	330.39	33.33	112.49	30.67	72.66	87.17	666.71
India	53.66	6.06	36.00	2.94	24.32	38.03	161.00
Japan	63.18	3.09	91.37	36.57	25.95	41.28	261.44
USA	173.67	16.80	639.63	90.36	142.87	159.19	1,222.52
Russian Federation	52.23	4.89	87.70	6.99	47.31	41.50	240.61

2. Commercial Energy Only, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	49.6%	5.0%	16.9%	4.6%	10.9%	13.1%	100.0%
India	33.3%	3.8%	22.4%	1.8%	15.1%	23.6%	100.0%
Japan	24.2%	1.2%	34.9%	14.0%	9.9%	15.8%	100.0%
USA	14.2%	1.4%	52.3%	7.4%	11.7%	13.0%	100.0%
Russian Federation	21.7%	2.0%	36.4%	2.9%	19.7%	17.2%	100.0%

3. Commercial and Non-Hydro Renewable Energy, Mtoe

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	330.39	33.33	112.49	30.67	294.85	87.17	888.90
India	80.94	6.06	36.10	8.94	147.95	38.03	318.03
Japan	65.57	3.09	91.37	36.57	25.98	41.28	263.86
USA	205.66	16.99	647.76	92.36	152.92	159.19	1,274.88
Russian Federation	52.81	5.17	87.70	7.60	48.432	41.50	243.22

4. Commercial and Non-hydro Renewable Energy, Shares

Country	Industry	Agriculture	Transportation	Commercial & Public Services	Residential	Other and Non-Energy	Total
China	37%	4%	13%	3%	33%	10%	100%
India	25%	2%	11%	3%	47%	12%	100%
Japan	25%	1%	35%	14%	10%	16%	100%
USA	16%	1%	51%	7%	12%	12%	100%
Russian Federation	22%	2%	36%	3%	20%	17%	100%

Source: IEA, 2007.

Figure 9B.8 Sectoral Shares of Energy End Use, Commerical Energy Only, 2001

Figure 9B.9. Sectoral Shares of Energy End Use, Commerical and Biomass Energy, 2001

Figure 9B.8 Sectoral Shares of Energy End Use, Commerical Energy Only, 2005

Figure 9B.9. Sectoral Shares of Energy End Use, Commerical and Biomass Energy, 2005

Table 9B.6. Industrial Energy Consumption by Energy Type

A. 1998

1. Mtoe

Country	Solid	Liquid	Gas	Non-hydro renewables	Electricity	Heat	Total
China	224.50	50.02	10.62		50.05	17.17	352.37
India	28.27	24.54	10.37	22.25	12.58		98.00
Japan	18.39	65.19	8.45	2.39	34.66		129.07
USA	27.49	93.75	139.84	14.52	93.01	5.42	374.04
Russian Federation	10.51	9.33	35.60	0.53	24.35	48.82	129.13

2. Shares

Country	Solid	Liquid	Gas	Non-hydro renewable	Electricity	Heat	Total
China	63.7%	14.2%	3.0%		14.2%	4.9%	100.0%
India	28.8%	25.0%	10.6%	22.7%	12.8%	0.0%	100.0%
Japan	14.2%	50.5%	6.5%	1.8%	26.9%	0.0%	100.0%
USA	7.4%	25.1%	37.4%	3.9%	24.9%	1.4%	100.0%
Russian Federation	8.1%	7.2%	27.6%	0.4%	18.9%	37.8%	100.0%

B. 2001

1. Mtoe

Country	Solid	Liquid	Gas	Non-hydro renewables	Electricity	Heat	Total
China	165.87	54.08	12.45		61.56	20.11	314.07
India	26.32	26.41	10.65	22.29	13.81		99.50
Japan	20.76	59.42	8.40	2.19	32.13		122.90
USA	29.51	101.19	139.17	35.00	91.26	7.63	403.76
Russian Federation	10.46	15.94	43.49	0.45	27.66	50.45	148.44

2. Shares

Country	Solid	Liquid	Gas	Non-hydro renewable	Electricity	Heat	Total
China	52.8%	17.2%	4.0%		19.6%	6.4%	100.0%
India	26.5%	26.5%	10.7%	22.4%	13.9%		100.0%
Japan	16.9%	48.3%	6.8%	1.8%	26.1%		100.0%
USA	7.3%	25.1%	34.5%	8.7%	22.6%	1.9%	100.0%
Russian Federation	7.0%	10.7%	29.3%	0.3%	18.6%	34.0%	100.0%

C.2004

1. Mtoe

Country	Solid	Liquid	Gas	Non-hydro renewables	Electricity	Heat	Total
China	248.37	36.25	10.03		99.27	24.70	418.62
India	29.45	19.38	1.58	26.94	16.90		92.24
Japan	24.46	33.15	4.73	2.33	30.12		94.78
USA	30.68	34.55	119.09	30.54	79.32	2.43	296.61
Russian Federation	10.06	12.17	27.67	0.73	28.73	47.74	127.09

2. Shares

Country	Solid	Liquid	Gas	Non-hydro renewable	Electricity	Heat	Total
China	59.3%	8.7%	2.4%		23.7%	5.9%	100.0%
India	31.9%	21.0%	1.7%	29.2%	18.3%		100.0%
Japan	25.8%	35.0%	5.0%	2.5%	31.8%		100.0%
USA	10.3%	11.6%	40.2%	10.3%	26.7%	0.8%	100.0%
Russian Federation	7.9%	9.6%	21.8%	0.6%	22.6%	37.6%	100.0%

D. 2005

1. Mtoe

Country	Solid	Liquid	Gas	Non-hydro renewables	Electricity	Heat	Total
China	279.76	38.08	12.37		116.22	29.15	475.76
India	29.49	19.07	5.10	27.29	18.06		99.01
Japan	25.03	32.99	5.17	2.39	29.83		95.40
USA	28.07	35.49	110.01	32.10	79.45	2.58	287.69
Russian Federation	11.86	10.25	30.11	0.58	28.37	46.80	127.98

2. Shares

Country	Solid	Liquid	Gas	Non-hydro renewable	Electricity	Heat	Total
China	58.8%	8.0%	2.6%		24.4%	6.1%	100.0%
India	29.8%	19.3%	5.2%	27.6%	18.2%		100.0%
Japan	26.2%	34.6%	5.4%	2.5%	31.3%		100.0%
USA	9.8%	12.3%	38.2%	11.2%	27.6%	0.9%	100.0%
Russian Federation	9.3%	8.0%	23.5%	0.5%	22.2%	36.6%	100.0%

N.B. Blanks indicate no data available.

Source: IEA, 2007.

Figure 9B.10. Shares of Total Industrial Sector Energy End Use by Energy Type

1. 2001

2. 2005

Table 9B.7. Transportation Energy Consumption by Energy Type

A. 1998

1. Mtoe

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro Renewable	Total
China	6.83	57.15	0.16	0.99		65.12
India		41.77		0.63		42.40
Japan		90.77		1.88		92.64
USA		565.05	14.97	0.36	1.75	582.12
Russian Federation		46.79	30.93	5.16		82.88

2. Shares

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro renewable	Total
China	10.5%	87.8%	0.2%	1.5%		100.0%
India		98.5%		1.5%		100.0%
Japan		98.0%		2.0%		100.0%
USA		97.1%	2.6%	0.1%	0.3%	100.0%
Russian Federation		56.5%	37.3%	6.2%		100.0%

B. 2001

1. Mtoe

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro Renewable	Total
China	5.28	69.16	0.23	1.31		75.98
India		43.83		0.72		44.56
Japan		94.48		1.60		96.08
USA		592.23	14.83	0.40	1.70	609.17
Russian Federation		50.07	27.08	5.34		82.50

2. Shares

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro renewable	Total
China	7.0%	91.0%	0.3%	1.7%		100.0%
India		98.4%		1.6%		100.0%
Japan		98.3%		1.7%		100.0%
USA		97.2%	2.4%	0.1%	0.3%	100.0%
Russian Federation		60.7%	32.8%	6.5%		100.0%

C. 2004

1. Mtoe

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro Renewable	Total
China	4.16	97.47	0.05	1.72		103.39
India		35.50	0.58	0.82	0.01	36.91
Japan		92.98		1.61		94.59
USA		617.83	13.66	0.62	6.96	639.08
Russian Federation		53.52	34.24	6.91		94.67

2. Shares

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro renewable	Total
China	4.0%	94.3%	0.0%	1.7%	0.0%	100.0%
India		96.2%	1.6%	2.2%		100.0%
Japan		98.3%		1.7%		100.0%
USA		96.7%	2.1%	0.1%	1.1%	100.0%
Russian Federation		56.5%	36.2%	7.3%		100.0%

D. 2005

1. Mtoe

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro Renewable	Total
China	4.08	108.33	0.08	1.74		114.23
India		35.34	0.66	0.90	0.10	37.00
Japan		91.37		1.64		93.01
USA		625.48	14.16	0.65	8.13	648.41
Russian Federation		53.86	33.84	7.15		94.85

2. Shares

Country	Solid	Liquid	Gas ^[1]	Electricity	Non-hydro renewable	Total
China	3.6%	94.8%	0.1%	1.5%		100.0%
India		95.5%	1.8%	2.4%	0.3%	100.0%
Japan		98.2%		1.8%		100.0%
USA		96.5%	2.2%	0.1%	1.3%	100.0%
Russian Federation		56.8%	35.7%	7.5%		100.0%

[1] Mainly pipeline use.

Source: IEA, 2007.

Figure 9B.11. Energy Use in Transportation, Selected Countries

1. 2001

2. 2005

Table 9B.8. Residential and Commercial Energy Consumption by Energy Type

A. 1998

1. Mtoe

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	54.02	21.76	4.43	4.79	16.23	208.09	309.32
India	8.15	19.95	0.16	0.00	7.29	173.04	208.59
Japan	1.01	34.78	12.84	0.48	42.36	1.07	92.52
USA	2.69	42.11	175.79	1.85	188.82	12.75	424.01
Russian Federation	7.02	4.05	43.98	81.86	16.94	2.20	156.04

2. Shares

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	17.5%	7.0%	1.4%	1.5%	5.2%	67.3%	100.0%
India	3.9%	9.6%	0.1%	0.0%	3.5%	83.0%	100.0%
Japan	1.1%	37.6%	13.9%	0.5%	45.8%	1.2%	100.0%
USA	0.6%	9.9%	41.5%	0.4%	44.5%	3.0%	100.0%
Russian Federation	4.5%	2.6%	28.2%	52.5%	10.9%	1.4%	100.0%

B. 2001

1. Mtoe

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	49.38	29.67	7.02	6.03	22.26	214.60	328.96
India	6.32	20.94	0.40	0.00	8.68	181.51	217.85
Japan		46.07	12.00	0.42	45.20	0.80	104.48
USA	2.44	49.23	181.44	1.97	195.77	12.55	443.39
Russian Federation	9.35	6.23	47.92	82.23	17.96	2.03	165.72

2. Shares

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	15.0%	9.0%	2.1%	1.8%	6.8%	65.2%	100.0%
India	2.9%	9.6%	0.2%	0.0%	4.0%	83.3%	100.0%
Japan		44.1%	11.5%	0.4%	43.3%	0.8%	100.0%
USA	0.5%	11.1%	40.9%	0.4%	44.2%	2.8%	100.0%
Russian Federation	5.6%	3.8%	28.9%	49.6%	10.8%	1.2%	100.0%

Source: IEA, 2003.

C. 2004

1. Mtoe

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	48.13	38.18	10.27	10.72	31.17	220.22	358.68
India	5.53	20.54	0.56		10.93	128.15	165.71
Japan	0.59	39.82	20.41	0.59	51.17	0.73	113.30
USA	2.46	48.61	185.17	0.65	216.93	13.84	467.65
Russian Federation	5.42	5.26	45.43	79.22	18.33	1.55	155.20

2. Shares

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	13.4%	10.6%	2.9%	3.0%	8.7%	61.4%	100.0%
India	3.3%	12.4%	0.3%		6.6%	77.3%	100.0%
Japan	0.5%	35.1%	18.0%	0.5%	45.2%	0.6%	100.0%
USA	0.5%	10.4%	39.6%	0.1%	46.4%	3.0%	100.0%
Russian Federation	3.5%	3.4%	29.3%	51.0%	11.8%	1.0%	100.0%

D. 2005

1. Mtoe

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	51.35	39.90	12.07	13.22	34.33	222.20	373.08
India	5.69	20.93	0.63		11.88	129.63	168.77
Japan	0.64	38.74	22.44	0.62	53.07	0.73	116.24
USA	1.90	45.97	183.39	14.02	226.55	0.68	472.51
Russian Federation	5.24	7.36	41.69	70.21	18.91	1.74	145.16

2. Shares

Country	Coal	Liquid	Gas	Heat	Electricity	Non-hydro renewables	Total
China	13.8%	10.7%	3.2%	3.5%	9.2%	59.6%	100.0%
India	3.4%	12.4%	0.4%		7.0%	76.8%	100.0%
Japan	0.6%	33.3%	19.3%	0.5%	45.7%	0.6%	100.0%
USA	0.4%	9.7%	38.8%	3.0%	47.9%	0.1%	100.0%
Russian Federation	3.6%	5.1%	28.7%	48.4%	13.0%	1.2%	100.0%

Source: IEA, 2007.

Figure 9B.12. Residential and Commercial Energy Use, Selected Countries

1. 2001

2. 2005

Table 9B.9. End-Use Energy Consumption by Energy Type

A. 1998

1. Mtoe

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	311.34	156.97	15.20	77.09	208.09	22.64	791.33
India	36.42	91.15	10.65	30.18	195.28		363.69
Japan	19.39	211.59	21.30	79.21	3.45	0.48	335.43
USA	30.19	777.06	330.60	282.19	29.46	7.27	1,456.77
Russian Federation	17.83	75.39	111.84	49.75	2.76	135.58	393.15

2. Shares

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	39.3%	19.8%	1.9%	9.7%	26.3%	2.9%	100.0%
India	10.0%	25.1%	2.9%	8.3%	53.7%		100.0%
Japan	5.8%	63.1%	6.4%	23.6%	1.0%	0.1%	100.0%
USA	2.1%	53.3%	22.7%	19.4%	2.0%	0.5%	100.0%
Russian Federation	4.5%	19.2%	28.4%	12.7%	0.7%	34.5%	100.0%

B. 2001

1. Mtoe

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	243.51	183.09	19.70	97.72	214.60	26.82	785.44
India	32.64	99.67	11.18	32.38	203.80		379.67
Japan	20.76	218.49	20.40	79.06	2.99	0.42	342.13
USA	31.95	825.38	335.45	287.43	50.82	9.60	1,540.62
Russian Federation	21.23	93.82	119.74	53.15	2.83	136.70	427.46

2. Shares

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	31.0%	23.3%	2.5%	12.4%	27.3%	3.4%	100.0%
India	8.6%	26.3%	2.9%	8.5%	53.7%		100.0%
Japan	6.1%	63.9%	6.0%	23.1%	0.9%	0.1%	100.0%
USA	2.1%	53.6%	21.8%	18.7%	3.3%	0.6%	100.0%
Russian Federation	5.0%	21.9%	28.0%	12.4%	0.7%	32.0%	100.0%

C. 2004

1. Mtoe

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	337.29	254.01	26.73	148.04	220.22	36.26	1,022.54
India	38.77	106.39	10.66	38.42	155.10		349.33
Japan	25.46	212.94	25.48	83.02	3.16	0.59	350.65
USA	33.72	866.28	333.93	311.35	51.38	3.08	1,599.74
Russian Federation	17.11	94.86	124.68	55.52	2.63	130.06	424.85

2. Shares

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	33.0%	24.8%	2.6%	14.5%	21.5%	3.5%	100.0%
India	11.1%	30.5%	3.1%	11.0%	44.4%		100.0%
Japan	7.3%	60.7%	7.3%	23.7%	0.9%	0.2%	100.0%
USA	2.1%	54.2%	20.9%	19.5%	3.2%	0.2%	100.0%
Russian Federation	4.0%	22.3%	29.3%	13.1%	0.6%	30.6%	100.0%

D. 2005

1. Mtoe

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	373.31	270.44	31.85	171.36	222.20	43.38	1,112.53
India	37.73	106.27	13.95	41.10	157.03		356.07
Japan	26.06	208.36	27.96	84.63	3.21	0.62	350.85
USA	30.41	867.71	322.34	319.95	54.43	3.26	1,598.10
Russian Federation	17.94	95.18	128.02	55.90	2.61	120.26	419.90

2. Shares

Country	Solid	Liquid	Gas	Electricity	Non-hydro renewables	Delivered Heat	Total
China	33.6%	24.3%	2.9%	15.4%	20.0%	3.9%	100.0%
India	10.6%	29.8%	3.9%	11.5%	44.1%		100.0%
Japan	7.4%	59.4%	8.0%	24.1%	0.9%	0.2%	100.0%
USA	1.9%	54.3%	20.2%	20.0%	3.4%	0.2%	100.0%
Russian Federation	4.3%	22.7%	30.5%	13.3%	0.6%	28.6%	100.0%

Source: IEA, 2007.

Figure 9B.13. Shares of End-Use Energy Consumption by Energy Type, Selected Countries

1. 2001

2. 2005

Table 9B.10. Solid Fuel Consumption by Sector

A. 1998

1. Mtoe

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	73.6	224.5	54.0	69.9	422.0
India	5.2	28.3	8.2	8.2	49.8
Japan	22.0	18.4	1.0	1.0	42.4
USA	31.2	27.5	2.7	2.7	64.1
Russian Federation	82.3	10.5	7.0	7.3	107.2

2. Shares

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	17.4%	53.2%	12.8%	16.6%	100.0%
India	10.5%	56.8%	16.4%	16.4%	100.0%
Japan	51.9%	43.4%	2.4%	2.4%	100.0%
USA	48.7%	42.9%	4.2%	4.2%	100.0%
Russian Federation	76.8%	9.8%	6.5%	6.8%	100.0%

B. 2001

1. Mtoe

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	86.5	165.9	49.4	63.5	365.3
India	7.6	26.3	6.3	6.3	46.6
Japan	22.1	20.8			42.9
USA	39.0	29.5	2.4	2.4	73.4
Russian Federation	87.1	10.5	9.4	10.0	117.0

2. Shares

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	23.7%	45.4%	13.5%	17.4%	100.0%
India	16.3%	56.5%	13.6%	13.6%	100.0%
Japan	51.6%	48.4%			100.0%
USA	53.2%	40.2%	3.3%	3.3%	100.0%
Russian Federation	74.5%	8.9%	8.0%	8.6%	100.0%

C. 2004

1. Mtoe

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	125.7	248.4	48.1	40.8	462.9
India	12.518	29.4	5.5	3.8	51.2
Japan	22.2	24.5	0.6	0.4	47.6
USA	23.9	30.7	2.5	0.6	57.6
Russian Federation	86.8	10.1	5.4	1.6	103.9

2. Shares

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	27.1%	53.7%	10.4%	8.8%	100.0%
India	24.4%	57.4%	10.8%	7.4%	100.0%
Japan	46.5%	51.4%			100.0%
USA	41.5%	53.3%	4.3%	1.0%	100.0%
Russian Federation	83.5%	9.7%	5.2%	1.6%	100.0%

D. 2005

1. Mtoe

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	147.2	279.8	51.4	38.1	516.4
India	15.0	29.5	5.7	2.6	52.8
Japan	21.5	25.0	0.6	0.4	47.6
USA	23.5	28.1	1.9	0.4	53.9
Russian Federation	84.9	11.9	5.2	0.8	102.8

2. Shares

Country	Transformation Sectors ^[1]	Industry ^[2]	Residential & Commercial	Other ^[3]	Total ^[4]
China	28.5%	54.2%	9.9%	7.4%	100.0%
India	28.5%	55.9%	10.8%	4.8%	100.0%
Japan	45.2%	52.6%			100.0%
USA	43.6%	52.0%	3.5%	0.8%	100.0%
Russian Federation	82.6%	11.5%	5.1%	0.8%	100.0%

[1] Includes power and heat generation, gasification, coking, and oil refining.

[2] Industrial coal use does not include coal used for making coke.

[3] "Other" includes transportation and agricultural use in addition to "unspecified other" and non-energy use.

[4] Total includes own use, net losses in coking, gas works inputs, and distribution losses.

Source: IEA, 2007 (as reported).

Figure 9B.14. Sectoral Shares of Coal Consumption, Selected Countries

1. 2001

2. 2005

Table 9B.11. Petroleum Use by Sector, 1998-2005

A. 1998

1. Mtoe

Country	Transformation ^[1]	(Consumption)		Residential		(Consumption)	
		Industry	Transportation	& Commercial	Agriculture	Other	Sub-total
China	160.2	48.5	57.1	21.8	13.3	35.1	175.7
India	72.3	24.2	41.8	19.9	0.0	20.0	106.0
Japan	210.4	62.8	90.8	34.8	10.4	45.2	244.0
USA	835.5	93.8	565.0	42.1	14.7	56.8	772.3
Russian Federation	130.6	9.3	46.8	3.7	5.8	13.0	78.6

2. Shares

Country	Industry	Transportation	& Commercial	Residential		(Consumption)	
				Agriculture	Other	Sub-total	
China	27.6%	32.5%	12.4%	7.6%	20.0%	100.0%	
India	22.8%	39.4%	18.8%	0.0%	18.9%	100.0%	
Japan	25.7%	37.2%	14.3%	4.3%	18.5%	100.0%	
USA	12.1%	73.2%	5.5%	1.9%	7.4%	100.0%	
Russian Federation	11.8%	59.5%	4.7%	7.4%	16.5%	100.0%	

B. 2001

1. Mtoe

Country	Transformation ^[1]	(Consumption)		Residential		(Consumption)	
		Industry	Transportation	& Commercial	Agriculture	Other	Sub-total
China	197.5	52.0	69.2	29.7	16.1	45.8	212.7
India	112.3	26.4	43.8	20.9	0.0	21.1	112.3
Japan	202.8	58.4	94.5	46.1	6.5	55.9	261.4
USA	844.4	101.2	592.2	49.2	15.7	64.9	823.3
Russian Federation	161.9	15.9	50.1	5.7	5.9	19.6	97.2

2. Shares

Country	Industry	Transportation	& Commercial	Residential		(Consumption)	
				Agriculture	Other	Sub-total	
China	24.4%	32.5%	13.9%	7.6%	21.5%	100.0%	
India	23.5%	39.0%	18.6%	0.0%	18.8%	100.0%	
Japan	22.3%	36.1%	17.6%	2.5%	21.4%	100.0%	
USA	12.3%	71.9%	6.0%	1.9%	7.9%	100.0%	
Russian Federation	16.4%	51.5%	5.9%	6.1%	20.1%	100.0%	

[1] Includes power and heat generation, gasification, coking, and oil refining.

Source: IEA, 2007.

C. 2004

1. Mtoe

Country	Transformation ^[1]	(Consumption)		Residential		Other	(Consumption) Sub-total
		Industry	Transportation	& Commercial	Agriculture		
China	265.9	36.2	97.5	38.2	20.4	61.7	254.0
India	132.6	19.4	35.5	20.5	5.8	25.1	106.4
Japan	196.0	33.2	93.0	39.8	3.2	43.8	213.0
USA	860.2	34.6	617.8	48.6	16.4	148.9	866.3
Russian Federation	179.2	12.2	53.5	5.3	4.4	19.6	94.9

2. Shares

Country	Industry	Transportation	& Commercial	Residential		Other	(Consumption) Sub-total
				Agriculture			
China	14.3%	38.4%	15.0%	8.0%		24.3%	100.0%
India	18.2%	33.4%	19.3%	5.5%		23.6%	100.0%
Japan	15.6%	43.7%	18.7%	1.5%		20.6%	100.0%
USA	4.0%	71.3%	5.6%	1.9%		17.2%	100.0%
Russian Federation	12.8%	56.4%	5.5%	4.6%		20.6%	100.0%

D. 2005

1. Mtoe

Country	Transformation ^[1]	(Consumption)		Residential		Other	(Consumption) Sub-total
		Industry	Transportation	& Commercial	Agriculture		
China	280.6	38.3	108.3	39.9	21.2	62.8	270.4
India	135.0	19.1	35.3	20.9	5.9	25.0	106.3
Japan	202.7	33.0	91.4	38.7	3.0	42.3	208.4
USA	857.0	35.5	625.5	46.0	16.4	144.4	867.7
Russian Federation	192.2	95.2	53.9	7.4	4.2	19.5	180.1

2. Shares

Country	Industry	Transportation	& Commercial	Residential		Other	(Consumption) Sub-total
				Agriculture			
China	14.1%	40.1%	14.8%	7.8%		23.2%	100.0%
India	17.9%	33.3%	19.7%	5.6%		23.5%	100.0%
Japan	15.8%	43.9%	18.6%	1.4%		20.3%	100.0%
USA	4.1%	72.1%	5.3%	1.9%		16.6%	100.0%
Russian Federation	52.8%	29.9%	4.1%	2.3%		10.8%	100.0%

[1] Includes power and heat generation, gasification, coking, and oil refining.

Source: IEA, 2007.

Figure 9B.15. Sectoral Shares of Petroleum Consumption, Selected Countries

1. 2001

Figure 9B.15. Sectoral Shares of Petroleum Consumption, Selected Countries (continued)

2. 2005

Table 9B.12. End-Use Electricity Consumption by Sector

A. 1998

1. Mtoe

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	50.05	11.39	4.84	0.99	5.46	26.05	98.78
India	12.58	5.59	1.70	0.63	8.36	16.97	45.83
Japan	34.66	21.64	20.72	1.88	0.32	42.68	121.89
USA	93.01	96.99	91.84	0.36	188.82	471.02	852.34
Russian Federation	24.35	11.57	5.37	5.16	3.30	20.24	69.99

2. TWh^[1]

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	582.00	132.45	56.30	11.48	63.46	302.87	1,148.56
India	146.24	64.97	19.80	7.31	97.20	197.35	532.86
Japan	403.01	251.66	240.88	21.83	3.71	496.25	1,417.33
USA	1,081.55	1,127.74	1,067.87	4.18	2,195.60	5,476.93	10,783.87
Russian Federation	283.15	134.57	62.41	60.03	38.36	235.35	813.87

2. Shares

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	50.7%	11.5%	4.9%	1.0%	5.5%	26.4%	100.0%
India	27.4%	12.2%	3.7%	1.4%	18.2%	37.0%	100.0%
Japan	28.4%	17.8%	17.0%	1.5%	0.3%	35.0%	100.0%
USA	19.7%	20.6%	19.5%	0.1%		40.1%	100.0%
Russian Federation	34.8%	16.5%	7.7%	7.4%	4.7%	28.9%	100.0%

[1] Conversion to TWh from toe is done using the general conversion factor used by IEA (1 Mtoe = 11630 GWh) rather than country-specific or fuel-specific conversion factors.

Source: IEA, 2000.

Table 9B.12. End-Use Electricity Consumption by Sector (continued)

B. 2001

1. Mtoe

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	61.56	15.82	6.44	1.31	6.68	34.85	126.65
India	13.81	6.70	1.99	0.72	7.52	17.84	48.59
Japan	32.13	22.12	23.08	1.60	0.14	45.34	124.40
USA	91.26	99.47	96.29	0.40	195.77	483.20	866.33
Russian Federation	27.66	12.26	5.71	5.34	2.19	20.15	73.30

2. TWh^[1]

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	715.84	183.92	74.87	15.20	77.63	405.23	1,472.70
India	160.64	77.88	23.09	8.41	87.49	207.49	565.00
Japan	373.56	257.19	268.41	18.57	1.62	527.22	1,446.57
USA	1,061.14	1,156.67	1,119.70	4.71	2,276.37	5,618.59	10,783.87
Russian Federation	321.59	142.54	66.34	62.14	25.43	234.30	852.34

2. Shares

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	48.6%	12.5%	5.1%	1.0%	5.3%	27.5%	100.0%
India	28.4%	13.8%	4.1%	1.5%	15.5%	36.7%	100.0%
Japan	25.8%	17.8%	18.6%	1.3%	0.1%	36.4%	100.0%
USA	18.9%	20.6%	19.9%	0.1%		40.5%	100.0%
Russian Federation	37.7%	16.7%	7.8%	7.3%	3.0%	27.5%	100.0%

[1] Conversion to TWh from toe is done using the general conversion factor used by IEA (1 Mtoe = 11630 GWh) rather than country-specific or fuel-specific conversion factors.

Source: IEA, 2003.

Table 9B.12. End-Use Electricity Consumption by Sector (continued)

C. 2004

1. Mtoe

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	418.62	319.87	38.82	103.39	39.44	102.42	1,022.54
India	16.90	8.23	2.70	0.82	7.62	2.16	38.42
Japan	30.12	23.56	27.61	1.61	0.13		83.02
USA	79.32	111.11	105.82	0.62		14.49	311.35
Russian Federation	28.73	12.33	6.00	6.91	1.55		55.52

2. TWh^[1]

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	4,867.66	3,719.36	451.34	1,202.20	458.55	1,190.95	11,890.05
India	196.49	95.66	31.38	9.50	88.56	25.13	446.72
Japan	350.23	273.95	321.05	18.72	1.51		965.47
USA	922.33	1,291.98	1,230.47	7.21		168.49	3,620.47
Russian Federation	334.09	143.31	69.81	80.33	17.99		645.53

2. Shares

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	40.9%	31.3%	3.8%	10.1%	3.9%	10.0%	100.0%
India	44.0%	21.4%	7.0%	2.1%	19.8%	5.6%	100.0%
Japan	36.3%	28.4%	33.3%	1.9%	0.2%		100.0%
USA	25.5%	35.7%	34.0%	0.2%		4.7%	100.0%
Russian Federation	51.8%	22.2%	10.8%	12.4%	2.8%		100.0%

[1] Conversion to TWh from toe is done using the general conversion factor used by IEA (1 Mtoe = 11630 GWh) rather than country-specific or fuel-specific conversion factors.

Source: IEA, 2006.

Table 9B.12. End-Use Electricity Consumption by Sector (continued)

D. 2005

1. Mtoe

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	475.761	331.502	41.576	114.23	40.885	108.578	1112.532
India	18.06	8.89	2.99	0.90	8.23	2.04	41.10
Japan	29.83	28.73	24.34	1.64	0.08		84.63
USA	79.45	116.89	109.66	0.65		13.30	319.95
Russian Federation	28.37	9.37	9.54	7.15	1.45	0.02	55.90

2. TWh^[1]

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	5,532.10	3,854.67	483.44	1,328.26	475.41	1,262.53	12,936.42
India	210.03	103.37	34.76	10.42	95.69	23.66	477.94
Japan	346.86	334.07	283.02	19.07	0.93		983.95
USA	923.84	1,359.19	1,275.12	7.56		154.65	3,720.35
Russian Federation	329.87	108.92	110.94	83.17	16.84	0.22	649.97

2. Shares

Country	Industry	Residential	Commercial	Transport	Agriculture	Other	Total
China	42.8%	29.8%	3.7%	10.3%	3.7%	9.8%	100.0%
India	43.9%	21.6%	7.3%	2.2%	20.0%	5.0%	100.0%
Japan	35.2%	33.9%	28.8%	1.9%	0.1%		100.0%
USA	24.8%	36.5%	34.3%	0.2%		4.2%	100.0%
Russian Federation	50.8%	16.8%	17.1%	12.8%	2.6%	0.0%	100.0%

[1] Conversion to TWh from toe is done using the general conversion factor used by IEA (1 Mtoe = 11630 GWh) rather than country-specific or fuel-specific conversion factors.

Source: IEA, 2006.

Figure 9B.16. Sectoral Shares of Electricity Consumption, Selected Countries

Table 9B.13. Crude Steel Production, Selected Countries^[1]

1. Mt

Year	China	India	Japan	USA	FSU/ Russia ^[2]	Subtotal	World Total ^[3]
1979	34.5	10.1	110.6	123.7	127.2	406.2	702.5
1980	37.1	9.5	110.2	101.5	147.9	406.2	695.9
1981	35.6	10.8	100.5	109.6	148.4	405.0	683.8
1982	37.2	11.0	98.5	67.7	147.2	361.5	619.0
1983	40.0	10.2	96.3	76.8	152.5	375.8	650.8
1984	43.5	10.6	104.7	83.9	154.2	396.9	695.2
1985	46.8	11.9	104.4	80.1	154.7	397.9	703.0
1986	52.2	12.2	97.6	74.0	160.6	396.5	697.0
1987	56.3	13.1	97.9	80.9	161.9	410.0	717.1
1988	59.4	14.3	105.0	90.6	163.0	432.4	757.1
1989	61.6	14.6	107.2	87.7	160.1	431.2	759.8
1990	66.4	15.0	109.6	89.7	154.4	435.0	745.0
1991	71.0	17.1	108.9	79.7	72.8	349.5	687.3
1992	80.9	18.1	98.1	84.3	67.0	348.5	719.7
1993	89.5	18.2	99.6	88.8	58.3	354.5	727.5
1994	92.6	19.3	98.3	91.2	48.8	350.2	725.1
1995	95.4	22.0	101.6	95.2	51.6	365.8	752.3
1996	101.2	23.8	98.8	95.5	49.3	368.6	750.0
1997	108.9	24.4	104.5	98.5	48.5	384.9	798.9
1998	114.6	23.5	93.5	98.7	43.8	374.1	777.2
1999	124.0	24.3	94.2	97.4	51.5	391.4	788.5
2000	127.2	26.9	106.4	101.8	59.1	421.5	847.4
2001	150.9	27.3	102.9	90.1	59.0	430.1	850.3
2002	182.2	28.8	107.7	91.6	59.8	470.2	903.9
2003	222.4	31.8	110.5	93.7	61.5	519.8	969.7
2004	280.5	32.6	112.7	99.7	65.6	591.1	1068.7
2005	355.8	45.8	112.5	94.9	66.1	675.1	1146.2
2006	422.7	49.5	116.2	98.6	70.8	757.7	1250.0
2007	489.2	53.1	120.2	98.2	72.2	832.9	1344.3

2. Shares

Year	China	India	Japan	USA	FSU/ Russia ^[2]	Subtotal
1979	4.9%	1.4%	15.7%	17.6%	18.1%	57.8%
1980	5.3%	1.4%	15.8%	14.6%	21.3%	58.4%
1981	5.2%	1.6%	14.7%	16.0%	21.7%	59.2%
1982	6.0%	1.8%	15.9%	10.9%	23.8%	58.4%
1983	6.1%	1.6%	14.8%	11.8%	23.4%	57.7%
1984	6.3%	1.5%	15.1%	12.1%	22.2%	57.1%
1985	6.7%	1.7%	14.8%	11.4%	22.0%	56.6%
1986	7.5%	1.7%	14.0%	10.6%	23.0%	56.9%
1987	7.8%	1.8%	13.6%	11.3%	22.6%	57.2%
1988	7.8%	1.9%	13.9%	12.0%	21.5%	57.1%
1989	8.1%	1.9%	14.1%	11.5%	21.1%	56.8%
1990	8.9%	2.0%	14.7%	12.0%	20.7%	58.4%
1991	10.3%	2.5%	15.8%	11.6%	10.6%	50.9%
1992	11.2%	2.5%	13.6%	11.7%	9.3%	48.4%
1993	12.3%	2.5%	13.7%	12.2%	8.0%	48.7%
1994	12.8%	2.7%	13.6%	12.6%	6.7%	48.3%
1995	12.7%	2.9%	13.5%	12.7%	6.9%	48.6%
1996	13.5%	3.2%	13.2%	12.7%	6.6%	49.1%
1997	13.6%	3.1%	13.1%	12.3%	6.1%	48.2%
1998	14.7%	3.0%	12.0%	12.7%	5.6%	48.1%
1999	15.7%	3.1%	11.9%	12.4%	6.5%	49.6%
2000	15.0%	3.2%	12.6%	12.0%	7.0%	49.7%
2001	17.7%	3.2%	12.1%	10.6%	6.9%	50.6%
2002	20.2%	3.2%	11.9%	10.1%	6.6%	52.0%
2003	22.9%	3.3%	11.4%	9.7%	6.3%	53.6%
2004	26.2%	3.1%	10.5%	9.3%	6.1%	55.3%
2005	31.0%	4.0%	9.8%	8.3%	5.8%	58.9%
2006	33.8%	4.0%	9.3%	7.9%	5.7%	60.6%
2007	36.4%	3.9%	8.9%	7.3%	5.4%	62.0%

[1] Data for 1993 and later years are from IISO, 2008.

[2] For 1993 and later years, data are for the Russian Federation.

[3] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

Source: United Nations, 1994b; IISI, 1999, 2000, 2002 and 2008.

Table 9B.14. Cement Production, Selected Countries^[1]

1. Mt

Year	China	India	Japan	USA	FSU/ Russia ^[2]	Subtotal	World Total ^[3]
1979	73.9	18.3	87.8	76.6	123.0	379.6	865.1
1980	79.9	17.8	88.0	68.2	125.0	378.9	872.1
1981	82.9	20.9	84.8	65.1	127.2	380.9	878.7
1982	95.2	22.7	80.7	57.5	123.7	379.7	880.0
1983	108.3	25.3	80.9	63.9	128.2	406.5	907.0
1984	123.0	29.5	78.9	70.5	129.9	431.7	933.9
1985	146.0	32.0	72.8	70.3	130.8	451.8	950.0
1986	166.1	35.0	71.3	71.1	135.1	478.5	995.9
1987	186.2	37.1	71.6	67.4	137.4	499.7	1,043.5
1988	210.1	41.1	77.6	71.5	139.5	539.9	1,110.4
1989	210.3	44.2	79.7	71.3	140.4	546.0	1,146.2
1990	209.7	46.2	84.5	70.9	137.3	548.6	1,153.9
1991	244.7	51.7	89.6	65.1	77.5	528.4	1,109.6
1992	308.2	51.7	88.3	70.9		519.0	1,189.2
1993	367.9	56.2	88.0	73.8	49.6	635.6	1,180.0
1994	421.2	54.0	91.5	77.9	50.0	694.6	1,370.0
1995	475.6	70.0	90.5	78.3	36.4	750.8	1,421.3
1996	491.2	76.2	94.5	80.8	27.8	770.5	1,485.0
1997	511.7	80.0	91.9	84.3	26.6	794.5	1,515.0
1998	536.0	85.0	81.3	85.5	26.0	813.9	1,540.0
1999	573.0	90.0	80.1	87.8	28.4	859.3	1,600.0
2000	597.0	95.0	81.1	89.5	32.4	895.0	1,650.0
2001	661.0	105.0	76.6	90.5	35.3	968.3	1,740.0
2002	725.0	115.0	71.8	91.3	37.7	1,040.8	1,850.0
2003	862.1	123.0	68.8	94.3	41.0	1,189.2	2,030.0
2004	970.0	130.0	67.4	99.0	45.7	1,312.1	2,190.0
2005	1,038.3	145.0	69.6	100.9	48.7	1,402.5	2,310.0
2006	1,200.0	155.0	69.9	99.7	54.7	1,579.3	2,550.0
2007 ^[4]	1,300.0	160.0	70.0	96.4	59.0	1,685.4	2,600.0

2. Shares

Year	China	India	Japan	USA	FSU/ Russia ^[2]	Subtotal
1979	8.5%	2.1%	10.1%	8.9%	14.2%	43.9%
1980	9.2%	2.0%	10.1%	7.8%	14.3%	43.4%
1981	9.4%	2.4%	9.7%	7.4%	14.5%	43.3%
1982	10.8%	2.6%	9.2%	6.5%	14.1%	43.1%
1983	11.9%	2.8%	8.9%	7.0%	14.1%	44.8%
1984	13.2%	3.2%	8.4%	7.5%	13.9%	46.2%
1985	15.4%	3.4%	7.7%	7.4%	13.8%	47.6%
1986	16.7%	3.5%	7.2%	7.1%	13.6%	48.1%
1987	17.8%	3.6%	6.9%	6.5%	13.2%	47.9%
1988	18.9%	3.7%	7.0%	6.4%	12.6%	48.6%
1989	18.3%	3.9%	7.0%	6.2%	12.3%	47.6%
1990	18.2%	4.0%	7.3%	6.1%	11.9%	47.5%
1991	22.0%	4.7%	8.1%	5.9%	7.0%	47.6%
1992	25.9%	4.3%	7.4%	6.0%		43.6%
1993	31.2%	4.8%	7.5%	6.3%	4.2%	53.9%
1994	30.7%	3.9%	6.7%	5.7%	3.6%	50.7%
1995	33.5%	4.9%	6.4%	5.5%	2.6%	52.8%
1996	33.1%	5.1%	6.4%	5.4%	1.9%	51.9%
1997	33.8%	5.3%	6.1%	5.6%	1.8%	52.4%
1998	34.8%	5.5%	5.3%	5.6%	1.7%	52.8%
1999	35.8%	5.6%	5.0%	5.5%	1.8%	53.7%
2000	36.2%	5.8%	4.9%	5.4%	2.0%	54.2%
2001	38.0%	6.0%	4.4%	5.2%	2.0%	55.7%
2002	39.2%	6.2%	3.9%	4.9%	2.0%	56.3%
2003	42.5%	6.1%	3.4%	4.6%	2.0%	58.6%
2004	44.3%	5.9%	3.1%	4.5%	2.1%	59.9%
2005	44.9%	6.3%	3.0%	4.4%	2.1%	60.7%
2006	47.1%	6.1%	2.7%	3.9%	2.1%	61.9%
2007	50.0%	6.2%	2.7%	3.7%	2.3%	64.8%

[1] Data for 1994 and later years are from USGS, various years.

[2] For 1993 and later years, data are for the Russian Federation.

[3] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

[4] 2007 Data are USGS estimates, as found in 2008 Cement Commodity summary

Source: United Nations, 1994b; SSB, China Statistical Yearbook, various years; USGS, various years.

<http://minerals.er.usgs.gov/minerals/pubs/commodity/cement/>

Table 9B.15. Primary Aluminum Production, Selected Countries^[1]

1. Mt

Year	China	India	Japan	USA	FSU/ Russia ^[2]	Subtotal	World Total ^[3]
1979	0.36	0.21	1.01	4.56	1.75	7.89	14.58
1980	0.35	0.18	1.10	4.65	1.76	8.04	15.32
1981	0.35	0.21	0.78	4.49	1.80	7.63	14.92
1982	0.40	0.22	0.36	3.27	1.85	6.10	13.26
1983	0.43	0.20	0.26	3.35	2.00	6.24	13.73
1984	0.40	0.27	0.29	4.10	2.10	7.16	15.56
1985	0.41	0.26	0.23	3.50	2.20	6.60	15.28
1986	0.41	0.23	0.15	3.04	2.30	6.13	15.26
1987	0.62	0.25	0.05	3.34	2.40	6.66	16.36
1988	0.72	0.29	0.05	3.94	2.40	7.40	17.27
1989	0.76	0.43	0.05	4.03	2.40	7.67	18.03
1990	0.85	0.45	0.05	4.05	2.20	7.60	17.87
1991	0.86	0.51	0.05	4.12		5.54	16.09
1992	1.08	0.49	0.04	4.04		5.65	16.37
1993	1.24	0.47		3.70		5.40	
1994	1.46	0.48		3.30	2.67	7.91	19.10
1995	1.68			3.38	2.27	7.32	19.40
1996	1.77	0.53	0.02	3.58	2.87	8.77	20.70
1997	2.03	0.55	0.02	3.60	2.91	9.11	21.40
1998	2.34	0.54	0.02	3.71	3.01	9.62	22.60
1999	2.53	0.61	0.01	3.78	3.15	10.08	23.60
2000	2.80	0.64	0.01	3.67	3.25	10.36	24.40
2001	3.25	0.62	0.01	2.64	3.30	9.82	24.30
2002	4.30	0.65	0.01	2.71	3.35	11.01	25.90
2003	5.55	0.81	0.01	2.70	3.48	12.55	28.00
2004	6.69	0.88	0.01	2.52	3.59	13.69	30.00
2005	7.81	0.93	0.01	2.48	3.65	14.87	31.90
2006	9.35	1.10		2.28	3.72	16.45	33.70
2007	12.61	1.40		2.60	4.20	20.81	38.00

2. Shares

Year	China	India	Japan	USA	FSU/ Russia ^[2]	Subtotal
1979	2.5%	1.5%	7.0%	31.3%	12.0%	54.1%
1980	2.3%	1.2%	7.2%	30.4%	11.5%	52.5%
1981	2.3%	1.4%	5.2%	30.1%	12.1%	51.1%
1982	3.0%	1.6%	2.7%	24.7%	14.0%	46.0%
1983	3.1%	1.5%	1.9%	24.4%	14.6%	45.5%
1984	2.6%	1.7%	1.9%	26.3%	13.5%	46.0%
1985	2.7%	1.7%	1.5%	22.9%	14.4%	43.2%
1986	2.7%	1.5%	1.0%	19.9%	15.1%	40.2%
1987	3.8%	1.5%	0.3%	20.4%	14.7%	40.7%
1988	4.2%	1.7%	0.3%	22.8%	13.9%	42.9%
1989	4.2%	2.4%	0.3%	22.4%	13.3%	42.5%
1990	4.8%	2.5%	0.3%	22.7%	12.3%	42.5%
1991	5.3%	3.2%	0.3%	25.6%		34.4%
1992	6.6%	3.0%	0.2%	24.7%		34.5%
1993						
1994	7.7%	2.5%	0.0%	17.3%	14.0%	41.4%
1995	8.6%	0.0%	0.0%	17.4%	11.7%	37.7%
1996	8.6%	2.6%	0.1%	17.3%	13.9%	42.4%
1997	9.5%	2.6%	0.1%	16.8%	13.6%	42.6%
1998	10.4%	2.4%	0.1%	16.4%	13.3%	42.5%
1999	10.7%	2.6%	0.0%	16.0%	13.3%	42.7%
2000	11.5%	2.6%	0.0%	15.0%	13.3%	42.5%
2001	13.4%	2.6%	0.0%	10.9%	13.6%	40.4%
2002	16.6%	2.5%	0.0%	10.5%	12.9%	42.5%
2003	19.8%	2.9%	0.0%	9.7%	12.4%	44.8%
2004	22.3%	2.9%	0.0%	8.4%	12.0%	45.6%
2005	24.5%	2.9%	0.0%	7.8%	11.4%	46.6%
2006	27.7%	3.3%	0.0%	6.8%	11.0%	48.8%
2007	33.2%	3.7%	0.0%	6.8%	11.1%	54.8%

[1] For 2002 - 2005, data from British Geologic Survey "World Minerals Production" report, 2007. For 2006 - 07, data from USGS.

[2] For 1994 and later years, data are for the Russian Federation.

[3] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

Source: United Nations, 1994b; EB.China Nonferrous Metals Industry Yearbook, various years; USGS, various years; INEDIS, 2000. British Geologic Survey, 2007.

Table 9B.16. Ethylene Production, Selected Countries

1. Mt

Year	China	India	Japan	USA	FSU/ Russia ^[1]	Subtotal	World Total ^[2]
1979	0.43	0.10	4.78	13.24		18.56	35.32
1980	0.49		4.18	13.00	1.77	19.44	34.20
1981	0.50		3.65	13.34	2.09	19.60	34.14
1982	0.57		3.59	11.11	2.13	17.40	31.90
1983	0.65	0.08	3.69	13.01	2.27	19.70	34.58
1984	0.65	0.09	4.39	14.24	2.54	21.90	37.54
1985	0.65	0.09	4.23	13.54	2.67	21.17	37.15
1986	0.70	0.18	4.29	14.90	2.80	22.87	39.37
1987	0.94	0.15	4.58	15.85	2.98	24.51	42.46
1988	1.23	0.19	5.06	16.88	3.17	26.53	45.70
1989	1.40	0.20	5.60	15.87	3.14	26.21	45.32
1990	1.57	0.19	5.81	16.54	3.07	27.18	46.50
1991	1.76	0.19	6.14	18.12	2.15	28.36	49.20
1992	2.00	0.23	6.10	18.56	1.96	28.85	51.83
1993	2.03	0.37	5.77	18.15	1.73	28.04	49.92
1994	2.19	0.46	6.13	20.25	1.41	30.43	54.76
1995	2.40	0.50	6.94	21.32	1.60	32.76	55.83
1996	3.04	0.51	7.14	22.27	1.20	34.15	57.57
1997	3.59	0.51	7.42	23.17	1.26	35.94	61.10
1998	3.79	0.99	7.08	23.61	1.17	36.64	63.55
1999	4.35	1.38	7.09	25.30	1.63	39.74	67.34
2000	4.70	1.51	7.61	25.18	1.89	40.89	72.45
2001 ^[3]	4.81		7.36	22.86		35.03	
2002	5.43		7.15	23.68		36.26	
2003	6.12		7.37	23.27		36.76	
2004	6.27		7.57	25.41		39.25	

2. Shares

Year	China	India	Japan	USA	FSU/ Russia ^[1]	Subtotal
1979	1.2%	0.3%	13.5%	37.5%		52.6%
1980	1.4%		12.2%	38.0%	5.2%	56.8%
1981	1.5%		10.7%	39.1%	6.1%	57.4%
1982	1.8%		11.3%	34.8%	6.7%	54.6%
1983	1.9%	0.2%	10.7%	37.6%	6.6%	57.0%
1984	1.7%	0.2%	11.7%	37.9%	6.8%	58.3%
1985	1.8%	0.2%	11.4%	36.4%	7.2%	57.0%
1986	1.8%	0.5%	10.9%	37.9%	7.1%	58.1%
1987	2.2%	0.4%	10.8%	37.3%	7.0%	57.7%
1988	2.7%	0.4%	11.1%	36.9%	6.9%	58.1%
1989	3.1%	0.4%	12.4%	35.0%	6.9%	57.8%
1990	3.4%	0.4%	12.5%	35.6%	6.6%	58.4%
1991	3.6%	0.4%	12.5%	36.8%	4.4%	57.6%
1992	3.9%	0.4%	11.8%	35.8%	3.8%	55.7%
1993	4.1%	0.7%	11.6%	36.4%	3.5%	56.2%
1994	4.0%	0.8%	11.2%	37.0%	2.6%	55.6%
1995	4.3%	0.9%	12.4%	38.2%	2.9%	58.7%
1996	5.3%	0.9%	12.4%	38.7%	2.1%	59.3%
1997	5.9%	0.8%	12.1%	37.9%	2.1%	58.8%
1998	6.0%	1.6%	11.1%	37.2%	1.8%	57.6%
1999	6.5%	2.0%	10.5%	37.6%	2.4%	59.0%
2000	6.5%	2.1%	10.5%		2.6%	56.4%

[1] For 1991 and later years, data are for the Russian Federation.

[2] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

[3] Data discontinued from UN datasource after 2000.

Source: United Nations, 1994b, 2000 & 2002.

U.S. Data from www.envantageinc.com/US%20Ethane%20Outlook%20Final%20110104.ppt

China data from Statistical Yearbook 2005

Japan data from http://www.jpca.or.jp/english/04ethylen_product/index.htm

Table 9B.17. Ammonia Production, Selected Countries

1. Mt

Year	China	India	Japan	USA	FSU/ Russia ^[1]	Subtotal	World Total ^[2]
1979	13.48		0.12	13.99		27.59	71.76
1980	14.97		0.13	14.74		29.84	75.05
1981	14.83			11.76	17.89	44.49	73.14
1982	15.46			10.22	17.76	43.44	70.70
1983	16.77			12.44	20.55	49.76	80.04
1984	18.37			12.09	21.49	51.96	84.96
1985	17.19			14.26	22.17	53.62	86.87
1986	16.73		1.80	13.14	23.82	55.49	86.47
1987	19.41		1.79	14.60	24.23	60.04	92.97
1988	19.86		1.82	15.26	24.43	61.36	95.34
1989	20.68		1.83	14.94	23.62	61.07	107.69
1990	21.29		1.83	15.42		38.54	107.81
1991	22.02		1.86	12.80	11.94	48.61	100.00
1992	22.98		1.79	13.40	10.53	48.70	99.91
1993	21.93	7.18	1.71	12.60	9.90	53.31	94.69
1994	24.17	7.50	1.71	13.30	8.84	55.52	96.16
1995	27.66	8.29	1.83	13.00	9.66	60.43	104.58
1996	30.94	8.55	1.81	13.40	9.65	64.35	110.62
1997	30.00	9.30	1.84	13.30	8.74	63.17	110.41
1998	31.34	10.24	1.69	14.70	7.97	55.70	106.05
1999	34.32	10.38	1.69	12.90	9.28	68.56	110.69
2000	33.64	10.15	1.72	12.30	10.64	68.44	114.26
2001 ^[3]	34.12	12.26	1.60	11.07	10.55	69.61	127.50
2002	36.43	11.20	1.45	12.51	10.56	72.14	132.36
2003	36.67	11.78	1.29	10.26	11.05	71.05	133.57
2004	37.64	11.41	1.34	10.92	11.05	72.36	142.07
2005	45.90	13.11	1.32	10.13	12.14	82.60	148.14
2006	47.36	13.24	1.34	9.93	12.75	84.61	150.57
2007	47.96	11.17		10.08	13.36		

2. Shares

Year	China	India	Japan	USA	FSU/ Russia ^[1]	Subtotal
1979	18.8%		0.2%	19.5%		38.4%
1980	20.0%		0.2%	19.6%		39.8%
1981	20.3%			16.1%	24.5%	60.8%
1982	21.9%			14.5%	25.1%	61.4%
1983	21.0%			15.5%	25.7%	62.2%
1984	21.6%			14.2%	25.3%	61.2%
1985	19.8%			16.4%	25.5%	61.7%
1986	19.3%		2.1%	15.2%	27.5%	64.2%
1987	20.9%		1.9%	15.7%	26.1%	64.6%
1988	20.8%		1.9%	16.0%	25.6%	64.4%
1989	19.2%		1.7%	13.9%	21.9%	56.7%
1990	19.7%		1.7%	14.3%	0.0%	35.7%
1991	22.0%		1.9%	12.8%	11.9%	48.6%
1992	23.0%		1.8%	13.4%	10.5%	48.7%
1993	23.2%	7.6%	1.8%	13.3%	10.5%	56.3%
1994	25.1%	7.8%	1.8%	13.8%	9.2%	57.7%
1995	26.4%	7.9%	1.8%	12.4%	9.2%	57.8%
1996	28.0%	7.7%	1.6%	12.1%	8.7%	58.2%
1997	27.2%	8.4%	1.7%	12.0%	7.9%	57.2%
1998	29.6%	9.7%	1.6%	13.9%	7.5%	52.5%
1999	31.0%	9.4%	1.5%	11.7%	8.4%	61.9%
2000	29.4%	8.9%	1.5%	10.8%	9.3%	59.9%
2001	26.8%	9.6%	1.3%	8.7%	8.3%	54.6%
2002	27.5%	8.5%	1.1%	9.4%	8.0%	54.5%
2003	27.5%	8.8%	1.0%	7.7%	8.3%	53.2%
2004	26.5%	8.0%	0.9%	7.7%	7.8%	50.9%
2005	31.0%	8.9%	0.9%	6.8%	8.2%	55.8%
2006	31.5%	8.8%	0.9%	6.6%	8.5%	56.2%

[1] For 1991 and later years, data are for the Russian Federation.

[2] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

[3] For 2001 and later years, UN datasource discontinued data series. Data from USGS Minerals Information.

Source: United Nations, 1994b, 2000 & 2002. USGS, various years.

Table 9B.18. Caustic Soda Production, Selected Countries

1. Mt

Year	China	India	Japan	USA	FSU/ Russia ^[1]	Subtotal	World Total ^[2]
1979	1.83	0.57	2.93	11.57	2.68	19.57	31.95
1980	1.92	0.55	3.06	10.54	2.76	18.83	31.41
1981	1.92	0.61	2.79	9.63	2.76	17.71	30.45
1982	2.07	0.60	2.71	8.51	2.78	16.67	29.17
1983	2.12	0.61	2.78	9.11	2.85	17.47	30.83
1984	2.22	0.70	2.99	9.90	2.97	18.78	32.95
1985	2.35	0.72	2.98	9.81	3.06	18.91	33.20
1986	2.52	0.73	2.98	9.64	3.23	19.11	33.71
1987	2.74	0.95	3.13	10.48	3.28	20.58	35.21
1988	3.01	0.91	3.40	9.56	3.32	20.20	35.39
1989	3.21	0.91	3.56	10.60	3.19	21.47	38.00
1990	3.35	0.96	3.80	11.12	2.97	22.20	37.57
1991	3.54	1.02	3.79	11.11	2.04	21.50	36.67
1992	3.80	1.08	3.75	11.29	1.84	21.75	36.56
1993	3.95	1.11	3.66	11.31	1.42	21.46	35.85
1994	4.30	1.12	3.67	11.39	1.14	21.62	36.50
1995	5.32	1.36	3.89		1.16	11.72	38.14
1996	5.74	1.46	3.94		0.87	12.01	38.39
1997	5.75	1.43	4.26		0.95	12.38	38.55
1998	5.39	1.43	4.12		0.85	11.79	37.48
1999	5.80	1.43	4.22		1.04	12.48	38.40
2000	6.68	1.64	4.34		1.24	13.90	39.52
2001	7.88	1.73	4.29		1.20	15.10	26.24
2002	8.78	1.54	3.57		1.15	15.03	23.83
2003	9.45	1.60	3.78		1.11	15.94	23.97
2004			3.91		1.19		

2. Shares

Year	China	India	Japan	USA	FSU/ Russia ^[1]	Subtotal
1979	5.7%	1.8%	9.2%	36.2%	8.4%	61.3%
1980	6.1%	1.7%	9.8%	33.6%	8.8%	60.0%
1981	6.3%	2.0%	9.1%	31.6%	9.1%	58.2%
1982	7.1%	2.0%	9.3%	29.2%	9.5%	57.1%
1983	6.9%	2.0%	9.0%	29.5%	9.3%	56.7%
1984	6.7%	2.1%	9.1%	30.0%	9.0%	57.0%
1985	7.1%	2.2%	9.0%	29.5%	9.2%	57.0%
1986	7.5%	2.2%	8.9%	28.6%	9.6%	56.7%
1987	7.8%	2.7%	8.9%	29.8%	9.3%	58.5%
1988	8.5%	2.6%	9.6%	27.0%	9.4%	57.1%
1989	8.4%	2.4%	9.4%	27.9%	8.4%	56.5%
1990	8.9%	2.6%	10.1%	29.6%	7.9%	59.1%
1991	9.7%	2.8%	10.3%	30.3%	5.6%	58.6%
1992	10.4%	2.9%	10.3%	30.9%	5.0%	59.5%
1993	11.0%	3.1%	10.2%	31.5%	4.0%	59.8%
1994	11.8%	3.1%	10.1%	31.2%	3.1%	59.2%
1995	13.9%	3.6%	10.2%	0.0%	3.0%	30.7%
1996	15.0%	3.8%	10.3%	0.0%	2.3%	31.3%
1997	14.9%	3.7%	11.0%	0.0%	2.5%	32.1%
1998	14.4%	3.8%	11.0%	0.0%	2.3%	31.5%
1999	15.1%	3.7%	11.0%	0.0%	2.7%	32.5%
2000	16.9%	4.2%	11.0%	0.0%	3.1%	35.2%
2001	30.0%	6.6%	16.4%	0.0%	4.6%	57.5%
2002	36.9%	6.5%	15.0%	0.0%	4.8%	63.1%
2003	39.4%	6.7%	15.7%	0.0%	4.6%	66.5%
2004						

[1] For 1991 and later years, data are for the Russian Federation.

[2] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

Source: United Nations, 1994b, 2000 & 2002, 2004, 2006.

Table 9B.19. Soda Ash Production, Selected Countries

1. Mt

Year	China	India	Japan	USA ^[1]	FSU/ Russia ^[2]	Subtotal	World Total ^[3]
1979	1.49	0.54	1.35	7.49	4.78	15.65	25.57
1980	1.61	0.50	1.35	7.51	4.78	15.75	25.90
1981	1.65	0.64	1.17	7.51	4.68	15.66	25.67
1982	1.74	0.60	1.16	7.09	4.76	15.35	24.89
1983	1.79	0.74	1.10	7.68	5.10	16.42	26.56
1984	1.88	0.83	1.03	7.72	5.12	16.57	27.43
1985	2.01	0.83	1.05	7.72	5.03	16.64	27.38
1986	2.15	0.87	1.02	7.65	5.15	16.83	27.73
1987	2.36	0.97	1.09	8.07	5.16	17.65	28.65
1988	2.61	1.10	1.08	8.74	5.10	18.62	29.82
1989	3.64	1.35	1.10	9.00	4.92	20.01	30.96
1990	3.80	1.39	1.13	9.16	4.47	19.95	30.61
1991	3.94	1.41	1.10	9.01	3.05	18.50	28.66
1992	4.55	1.39	1.05	9.38	2.68	19.05	28.93
1993	5.35	1.55	1.05	8.96	1.99	18.90	28.76
1994	5.81	1.45	1.04	9.32	1.59	19.21	29.16
1995	5.98	1.46	1.04	10.10	1.82	20.41	30.42
1996	6.69	1.49	0.92	10.20	1.45	20.75	30.61
1997	7.26	1.57	0.80	10.70	1.65	21.98	31.86
1998	7.44	1.39	0.72	10.10	1.54	21.19	30.72
1999	7.66	1.52	0.72	10.20	1.92	22.02	31.57
2000	8.34	1.63	0.67	10.20	2.20	23.04	32.76
2001 ^[4]	9.14	1.50	0.46	10.30	2.37	23.78	35.50
2002	10.33	1.50	0.41	10.50	2.40	25.14	37.20
2003	11.34	1.50	0.40	10.60	2.40	26.24	38.40
2004	13.02	1.50	0.40	11.00	2.60	28.52	40.60
2005	14.21	1.50	0.40	11.00	2.60	29.71	42.00
2006	14.50	1.50	0.40	11.00	2.80	30.20	42.40

2. Shares

Year	China	India	Japan	USA ^[1]	FSU/ Russia ^[2]	Subtotal
1979	5.8%	2.1%	5.3%	29.3%	18.7%	61.2%
1980	6.2%	1.9%	5.2%	29.0%	18.5%	60.8%
1981	6.4%	2.5%	4.6%	29.3%	18.2%	61.0%
1982	7.0%	2.4%	4.6%	28.5%	19.1%	61.7%
1983	6.8%	2.8%	4.1%	28.9%	19.2%	61.8%
1984	7.1%	3.1%	3.9%	29.1%	19.3%	62.4%
1985	7.3%	3.0%	3.8%	28.1%	18.3%	60.6%
1986	7.8%	3.2%	3.7%	28.0%	18.8%	61.5%
1987	8.5%	3.5%	3.9%	29.1%	18.6%	63.7%
1988	8.7%	3.7%	3.6%	29.3%	17.1%	62.5%
1989	11.8%	4.4%	3.6%	29.1%	15.9%	64.6%
1990	12.4%	4.5%	3.7%	29.9%	14.6%	65.2%
1991	13.7%	4.9%	3.8%	31.4%	10.6%	64.6%
1992	15.7%	4.8%	3.6%	32.4%	9.3%	65.8%
1993	18.6%	5.4%	3.7%	31.2%	6.9%	65.7%
1994	19.9%	5.0%	3.6%	32.0%	5.4%	65.9%
1995	19.7%	4.8%	3.4%	33.2%	6.0%	67.1%
1996	21.9%	4.9%	3.0%	33.3%	4.7%	67.8%
1997	22.8%	4.9%	2.5%	33.6%	5.2%	69.0%
1998	24.2%	4.5%	2.3%	32.9%	5.0%	69.0%
1999	24.3%	4.8%	2.3%	32.3%	6.1%	69.7%
2000	25.5%	5.0%	2.0%	31.1%	6.7%	70.3%
2001	25.8%	4.2%	1.3%	29.0%	6.7%	67.0%
2002	27.8%	4.0%	1.1%	28.2%	6.5%	67.6%
2003	29.5%	3.9%	1.0%	27.6%	6.3%	68.3%
2004	32.1%	3.7%	1.0%	27.1%	6.4%	70.3%
2005	33.8%	3.6%	1.0%	26.2%	6.2%	70.7%
2006	34.2%	3.5%	0.9%	25.9%	6.6%	71.2%

[1] Includes natural sodium carbonate.

[2] For 1991 and later years, data are for the Russian Federation.

[3] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

[4] UN data series discontinued after 2000. Data for 2001 and later from USGS, various years.

Source: United Nations, 1994b, 2000 & 2002. USGS, various years.

Table 9B.20. Sulfuric Acid Production, Selected Countries

1. Mt

Year	China	India	Japan	USA ^[1]	FSU/ Russia ^[2]	Subtotal	World Total ^[3]
1979	7.00	2.23	6.58	39.19	22.36	77.36	130.77
1980	7.64	2.22	6.78	40.05	23.03	79.72	133.81
1981	7.81	2.28	6.57	36.95	24.10	77.71	130.49
1982	8.18	2.39	6.53	30.14	23.80	71.04	121.97
1983	8.70	2.24	6.66	33.98	24.71	76.29	129.47
1984	8.17	2.68	6.46	37.91	25.34	80.57	137.23
1985	6.76	2.63	6.58	35.96	26.04	77.97	132.56
1986	7.63	2.88	6.56	32.65	27.85	77.57	131.42
1987	9.83	3.16	6.54	35.61	28.53	83.68	134.94
1988	11.11	3.42	6.77	38.62	29.37	89.29	142.97
1989	11.53	3.29	6.89	39.28	28.28	89.27	137.75
1990	11.97	3.27	6.89	40.22	27.27	89.62	131.66
1991	13.33	3.90	7.06	12.84	11.60	48.74	97.83
1992	14.09	4.18	7.10	12.34	9.70	47.41	88.86
1993	13.37	3.73	6.94	11.90	8.24	44.18	80.77
1994	15.37	3.75	6.59	11.30	6.33	43.34	80.67
1995	18.11	4.40	6.89	11.50	6.95	47.85	87.03
1996	18.84	4.99	6.85	10.90	5.76	47.34	87.70
1997	20.37	4.83	6.83	10.70	6.25	48.98	90.94
1998	21.71	5.37	6.74	10.50	5.84	56.16	92.60
1999	23.56	5.69	6.94	10.40	7.15	53.74	96.62
2000	24.27	5.54	7.06	9.62	8.26	54.75	95.91
2001	26.96	5.18	6.73	9.82	8.21	56.90	75.51
2002	30.50	5.99	6.76	7.72	8.46	59.43	80.78
2003	33.71	6.08	6.53	6.83	8.76	61.91	78.40

2. Shares

Year	China	India	Japan	USA ^[1]	FSU/ Russia ^[2]	Subtotal
1979	5.4%	1.7%	5.0%	30.0%	17.1%	59.2%
1980	5.7%	1.7%	5.1%	29.9%	17.2%	59.6%
1981	6.0%	1.7%	5.0%	28.3%	18.5%	59.5%
1982	6.7%	2.0%	5.4%	24.7%	19.5%	58.2%
1983	6.7%	1.7%	5.1%	26.2%	19.1%	58.9%
1984	6.0%	2.0%	4.7%	27.6%	18.5%	58.7%
1985	5.1%	2.0%	5.0%	27.1%	19.6%	58.8%
1986	5.8%	2.2%	5.0%	24.8%	21.2%	59.0%
1987	7.3%	2.3%	4.8%	26.4%	21.1%	62.0%
1988	7.8%	2.4%	4.7%	27.0%	20.5%	62.5%
1989	8.4%	2.4%	5.0%	28.5%	20.5%	64.8%
1990	9.1%	2.5%	5.2%	30.5%	20.7%	68.1%
1991	13.6%	4.0%	7.2%	13.1%	11.9%	49.8%
1992	15.9%	4.7%	8.0%	13.9%	10.9%	53.4%
1993	16.5%	4.6%	8.6%	14.7%	10.2%	54.7%
1994	19.1%	4.6%	8.2%	14.0%	7.9%	53.7%
1995	20.8%	5.1%	7.9%	13.2%	8.0%	55.0%
1996	21.5%	5.7%	7.8%	12.4%	6.6%	54.0%
1997	22.4%	5.3%	7.5%	11.8%	6.9%	53.9%
1998	23.4%	5.8%	7.3%	11.3%	6.3%	60.6%
1999	24.4%	5.9%	7.2%	10.8%	7.4%	55.6%
2000	25.3%	5.8%	7.4%	10.0%	8.6%	57.1%
2001	35.7%	6.9%	8.9%	13.0%	10.9%	75.4%
2002	37.8%	7.4%	8.4%	9.6%	10.5%	73.6%
2003	43.0%	7.8%	8.3%	8.7%	11.2%	79.0%

[1] 1989-1990 data for the USA includes government-owned but privately operated plants. 1991-1998 data is sulphuric acid sold or used by producers.

[2] For 1991 and later years, data are for the Russian Federation.

[3] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

[4] 2001 - 2003 data from UN Statistical Yearbook, 2006.

Source: United Nations, 1994b, 2000 & 2002.

Table 9B.21. Pulp for Paper, Selected Countries^[1]

1. Mt

Year	China	India	Japan	USA	FSU	Subtotal	World Total ^[2]
1979	4.58	1.12	9.68	44.56		59.94	125.87
1980	4.81	0.84	9.49	45.57		60.71	128.31
1981	4.85	0.83	8.36	46.63		60.66	127.74
1982	4.80	0.88	8.36	44.30		58.33	122.39
1983	5.26	1.09	8.60	46.82		61.77	131.21
1984	5.82	1.14	8.89	49.61		65.46	139.03
1985	8.80	1.26	9.04	48.30		67.39	141.77
1986	9.69	1.45	9.08	51.06		71.27	148.09
1987	12.52	1.54	9.55	53.18		76.79	156.54
1988	13.73	1.61	10.24	54.59		80.16	162.75
1989	13.25	1.66	10.80	55.29		80.99	166.98
1990	13.33	1.75	11.15	56.40		82.62	165.87
1991	14.09	1.84	11.56	57.89		85.38	167.22
1992	15.33	1.93	11.03	58.21	6.22	92.72	165.11
1993	17.44	1.99	10.45	57.23	4.78	91.88	166.04
1994	19.95	1.84	10.44	64.73	3.73	100.69	178.83
1995	24.57	1.87	10.98	59.91	4.86	102.19	183.42
1996	14.30	1.87	11.07	58.47	3.74	89.44	168.87
1997	18.18	2.12	11.38	59.60	3.66	94.94	178.36
1998	18.21	2.26	10.92	58.77	3.91	94.07	177.44
1999	17.22	2.54	10.91	57.61	5.01	93.29	179.07
2000	17.96	2.60	11.32	57.18	5.75	94.81	188.36
2001	18.38	2.60	10.74	53.03	6.02	90.77	183.50
2002	18.38	2.60	10.74	52.91	6.28	90.92	185.21
2003	16.21	3.21	10.57	52.54	6.61	89.14	185.16
2004	16.31	3.73	10.70	53.82	6.78	91.34	189.98
2005	17.11	4.05	10.81	54.16	6.88	93.01	191.02
2006	17.41	4.05	10.85	54.98	6.89	94.17	193.83

2. Shares

Year	China	India	Japan	USA	FSU	Subtotal
1979	3.6%	0.9%	7.7%	35.4%		47.6%
1980	3.7%	0.7%	7.4%	35.5%		47.3%
1981	3.8%	0.6%	6.5%	36.5%		47.5%
1982	3.9%	0.7%	6.8%	36.2%		47.7%
1983	4.0%	0.8%	6.6%	35.7%		47.1%
1984	4.2%	0.8%	6.4%	35.7%		47.1%
1985	6.2%	0.9%	6.4%	34.1%		47.5%
1986	6.5%	1.0%	6.1%	34.5%		48.1%
1987	8.0%	1.0%	6.1%	34.0%		49.1%
1988	8.4%	1.0%	6.3%	33.5%		49.3%
1989	7.9%	1.0%	6.5%	33.1%		48.5%
1990	8.0%	1.1%	6.7%	34.0%		49.8%
1991	8.4%	1.1%	6.9%	34.6%		51.1%
1992	9.3%	1.2%	6.7%	35.3%	3.8%	56.2%
1993	10.5%	1.2%	6.3%	34.5%	2.9%	55.3%
1994	11.2%	1.0%	5.8%	36.2%	2.1%	56.3%
1995	13.4%	1.0%	6.0%	32.7%	2.7%	55.7%
1996	8.5%	1.1%	6.6%	34.6%	2.2%	53.0%
1997	10.2%	1.2%	6.4%	33.4%	2.1%	53.2%
1998	10.3%	1.3%	6.2%	33.1%	2.2%	53.0%
1999	9.6%	1.4%	6.1%	32.2%	2.8%	52.1%
2000	9.5%	1.4%	6.0%	30.4%	3.1%	50.3%
2001	10.0%	1.4%	5.9%	28.9%	3.3%	49.5%
2002	9.9%	1.4%	5.8%	28.6%	3.4%	49.1%
2003	8.8%	1.7%	5.7%	28.4%	3.6%	48.1%
2004	8.6%	2.0%	5.6%	28.3%	3.6%	48.1%
2005	9.0%	2.1%	5.7%	28.4%	3.6%	48.7%
2006	9.0%	2.1%	5.6%	28.4%	3.6%	48.6%

[1] Includes wood pulp from all pulping processes and pulp of fibers other than wood.

[2] In most cases "world total" is the sum of available country data only and so may be less than the actual world total. Since the major producing countries have been covered, however, this category is normally a good approximation of the actual total.

Source: FAO, 2008. <http://faostat.fao.org>

Table 9B.22. Structure of Passenger Travel for Selected Countries

A. 1992

1. Billion passenger-km

Country	Rail	Road	Water	Air	Total
China	315.2	319.3	19.8	40.6	694.9
India ^[1]	268.9	900.1		8.6	1,177.6
Japan	402.3	869.3	6.1	56.7	1,353.3
USA	18.4	2,714.4		811.8	3,327.4
Russia	253.2	212.3	4.2	150.4	755.0

2. Shares

Country	Rail	Road	Water	Air	Total
China	45.4%	45.9%	2.8%	5.8%	100.0%
India ^[1]	22.8%	76.4%		0.7%	100.0%
Japan	29.7%	64.2%	0.4%	4.2%	100.0%
USA	0.6%	81.6%		24.4%	100.0%
Russia	33.5%	28.1%	0.6%	19.9%	100.0%

3. Passenger-km per capita

Country	Rail	Road	Water	Air	Total
China	269	272	17	35	593
India ^[1]	331	1,109		11	1,450
Japan	3,232	6,985	49	455	10,874
USA	88	10,645		3,179	13,049
Russia	1,707	2,320	28	1,009	5,067

[1] 1989 data. Air travel figure is estimated.

Source: China — China Transportation Association, 1994; India and FSU — LDC Energy Database, International Energy Studies Group, EAP, LBL, 1995; Japan — Energy Economics Institute of Japan, 1995; USA — US Department of Commerce, 1994.

Table 9B.22. Structure of Passenger Travel for Selected Countries (continued)

B. 1999

1. Billion passenger-km

Country	Rail	Road	Water	Air	Total
China	413.6	619.9	10.7	85.7	1,130.0
India ^[1]	404.0	2,046.0		1,070.0	3,520.0
Japan	385.1	955.6	4.5	79.3	1,424.5
USA	22.7			1,097.5	1,120.2
Russia	141.0	171.8			312.8

2. Shares

Country	Rail	Road	Water	Air	Total
China	36.6%	54.9%	0.9%	7.6%	100.0%
India ^[1]	11.5%	58.1%		30.4%	100.0%
Japan	27.0%	67.1%	0.3%	5.6%	100.0%
USA	2.0%			98.0%	100.0%
Russia	45.1%	54.9%			100.0%

3. Passenger-km per capita

Country	Rail	Road	Water	Air	Total
China	329	493	9	68	898
India ^[1]	404	2,048		1,071	3,523
Japan	3,040	7,543	35	626	11,244
USA	81			3,938	4,020
Russia	964	1,174			2,138

[1] Indian fiscal year 1998-1999 data.

Source: China — China Transportation Association, 2000; India — World Bank, 2002; Russia — European Conference of Ministers of Transport (ECMT), 2004; Japan — Energy Economics Institute of Japan, 2002; USA — Davis and Diegel, 2003.

Table 9B.22. Structure of Passenger Travel for Selected Countries (continued)

B. 2005

1. Billion passenger-km

Country	Rail	Road	Water	Air	Total
China	606.2	929.2	6.8	204.5	1,746.7
India	540.0	3,078.5		40.3	3,658.8
Japan	246.0	933.0	4.0	83.0	1,411.0
USA	50.1	6,728.4		1,279.3	8,057.9
Russia	164.3	168.3	0.7	85.8	419.1

2. Shares

Country	Rail	Road	Water	Air	Total
China	34.7%	53.2%	0.4%	11.7%	100.0%
India ^[1]	14.8%	87.0%	0.0%	1.1%	100.0%
Japan	17.4%	66.1%	0.3%	5.9%	100.0%
USA	0.6%	83.5%	0.0%	15.9%	100.0%
Russia	39.2%	40.2%	0.2%	20.5%	100.0%

3. Passenger-km per capita

Country	Rail	Road	Water	Air	Total
China	465	712	5	157	1,339
India ^[1]	493	2,813		37	3,343
Japan	1,925	7,302	31	650	11,043
USA	169	22,692	0	4,315	27,176
Russia	1,147	1,176			2,928

Source: China — China Statistical Yearbook 2006; India — Statistical Pocketbook 2005; Russia — Federal State Statistics Service, 2008; Japan — Japan Statistical Yearbook 2008; USA — Davis and Diegel, 2003.

Table 9B.23. Structure of Freight Transportation for Selected Countries

A. 1992

1. Billion tonne-km

Country	Rail	Road	Water	Air	Pipeline	Total
China	1,157.5	375.5	1,325.6	1.3	61.7	2,921.6
India ^[1]	232.3	272.7				505.0
Japan	26.7	281.6	248.0	0.8		557.1
USA	1,716.5	1,311.3	1,378.9	17.7	918.7	5,343.1
FSU	1,967.1	257.2	135.8	2.5	2,146.0	4,508.6

2. Shares

Country	Rail	Road	Water	Air	Pipeline	Total
China	39.6%	12.9%	45.4%	0.05%	2.1%	100.0%
India ^[1]	46.0%	54.0%				100.0%
Japan	4.8%	50.5%	44.5%	0.1%		100.0%
USA	32.1%	24.5%	25.8%	0.3%	17.2%	100.0%
FSU	56.7%	1.6%	16.1%	0.06%	25.6%	100.0%

3. Tonne-km per capita

Country	Rail	Road	Water	Air	Pipeline	Total
China	988	320	1131	1	53	2,493
India ^[1]	286	336				622
Japan	215	2,271	2,000	7		4,493
USA	6,721	5,135	5,400	69	3,598	20,923
FSU	15,610	435	4,429	17	7,055	27,546

[1] 1989 data

Source: China — China Transportation Association, 1994; India and FSU — LDC Energy Database, International Energy Studies Group, EAP, LBL, 1995; Japan — Energy Economics Institute of Japan, 1995; USA — US Department of Commerce, 1994.

Table 9B.23. Structure of Freight Transportation for Selected Countries (continued)

B. 1999

1. Billion tonne-km

Country	Rail	Road	Water	Air	Pipeline	Total
China	1,283.8	572.4	2,126.3	4.2	62.8	4,049.6
India ^[1]	284.0	285.0		103.0		569.0
Japan	22.5	307.1	229.4	1.0		560.2
USA	2,306.4		1,055.5			3,361.9
Russia	1,204.6	140.0	66.0		1,903.9	3,314.5

2. Shares

Country	Rail	Road	Water	Air	Pipeline	Total
China	31.7%	14.1%	52.5%	0.1%	1.6%	100.0%
India ^[1]	49.9%	50.1%		18.1%		100.0%
Japan	4.0%	54.8%	41.0%	0.2%		100.0%
USA	68.6%		31.4%			100.0%
Russia	36.3%	4.2%	2.0%		57.4%	100.0%

3. Tonne-km per capita

Country	Rail	Road	Water	Air	Pipeline	Total
China	1,021	455	1,690	3	50	3,219
India ^[1]	284	285		103		570
Japan	178	2,424	1,811	8		4,422
USA	8,276	0	3,788			12,064
Russia	8,233	957	451		13,013	22,654

[1] Indian fiscal year 1998-1999 data.

Source: China — China Transportation Association, 2000; India — World Bank, 2002; Russia — European Conference of Ministers of Transport (ECMT), 2004; Japan — Energy Economics Institute of Japan, 2002; USA — Davis and Diegel, 2003.

Table 9B.23. Structure of Freight Transportation for Selected Countries (continued)

C. 2005

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1. Billion tonne-km

Country	Rail	Road	Water	Air	Pipeline	Total
China	2,072.6	869.3	4,967.2	7.9	108.8	8,025.8
India	407.0	NA*		0.7		407.7
Japan	23.0	335.0	212.0	1.1		570.0
USA	2,729.5		999.2			3,728.7
Russia	1,858.0	37.0	71.0	2.8	2,474.0	4,442.8

2. Shares

Country	Rail	Road	Water	Air	Pipeline	Total
China	25.8%	10.8%	61.9%	0.1%	1.4%	100.0%
India ^[1]	99.8%	NA*		0.1%		100.0%
Japan	4.0%	58.8%	37.2%	0.2%		100.0%
USA	73.2%		26.8%			100.0%
Russia	41.8%	0.8%	1.6%		55.7%	100.0%

3. Tonne-km per capita

Country	Rail	Road	Water	Air	Pipeline	Total
China	1,589	666	3,808	6	83	6,152
India ^[1]	372	NA*		1		373
Japan	180	2,622	1,659	9		4,461
USA	9,206		3,370			12,576
Russia	12,979	258	496		17,283	31,036

Note: previous dataset is discontinued as most of the data sources have been discontinued. NA*: no available data found

Source: China — China Statistical Yearbook 2006; India — Statistic Pocketbook 2005; Russia — National Statistics; Japan — Japan Statistical Yearbook 2008; USA — Davis and Diegel, 2003.

Table 9B.24. Carbon Dioxide Emissions from Fossil Fuel Combustion, Cement Production, and Gas Flaring

1. Mt Carbon

Year	China	India	Japan	USA	FSU ^[1]	Global Total
1950	22	19	29	709	186	1,671
1951	28	19	35	730	201	1,811
1952	35	21	37	713	216	1,843
1953	37	21	43	730	228	1,892
1954	45	22	41	695	249	1,919
1955	53	24	41	761	283	2,104
1956	60	25	46	799	310	2,241
1957	71	28	56	791	339	2,339
1958	145	29	54	765	362	2,401
1959	198	31	56	796	380	2,539
1960	215	34	69	813	396	2,660
1961	152	37	82	814	409	2,682
1962	121	40	87	843	429	2,794
1963	120	44	93	886	460	2,946
1964	121	43	103	923	489	3,117
1965	131	47	111	959	519	3,260
1966	144	49	122	1,011	548	3,429
1967	119	49	141	1,053	573	3,543
1968	129	53	161	1,095	589	3,731
1969	159	55	186	1,144	613	3,956
1970	211	57	210	1,176	628	4,240
1971	241	58	217	1,171	667	4,399
1972	256	61	234	1,241	701	4,577
1973	267	62	259	1,264	731	4,838
1974	272	66	252	1,223	758	4,844
1975	316	73	242	1,196	796	4,801
1976	333	77	248	1,260	828	5,091
1977	371	88	262	1,271	857	5,230
1978	414	90	263	1,286	883	5,301
1979	424	93	271	1,325	891	5,587
1980	415	98	263	1,274	923	5,506
1981	411	106	258	1,228	908	5,318
1982	441	112	251	1,165	929	5,268
1983	466	122	248	1,169	944	5,252
1984	507	127	266	1,214	952	5,424
1985	551	139	258	1,226	1,033	5,590
1986	581	149	257	1,227	1,034	5,761
1987	621	158	255	1,271	1,077	5,894
1988	669	171	279	1,340	1,109	6,128
1989	679	187	287	1,349	1,082	6,243
1990	683	194	304	1,327	1,013	6,327
1991	722	207	310	1,325	977	6,426
1992	763	221	313	1,328	554	6,297
1993	810	230	307	1,406	504	6,311
1994	865	244	321	1,431	435	6,481
1995	937	257	323	1,433	418	6,632
1996	979	285	332	1,455	411	6,790
1997	968	292	330	1,502	394	6,897
1998	924	302	320	1,514	387	6,890
1999	849	307	326	1,516	392	6,742
2000	843	306	334	1,542	398	6,869
2001	933	322	326	1,603	400	7,116
2002	990	335	330	1,627	398	7,167
2003	1,160	345	336	1,622	415	7,504
2004	1,367	366	343	1,650	416	7,910

[1] Beginning in 1992, data are for Russian Federation.

Source: Carbon Dioxide Information Analysis Center, 2007.

Table 9B.24. Carbon Dioxide Emissions from Fossil Fuel Combustion, Cement Production, and Gas Flaring (continued)

2. Shares

Year	China	India	Japan	USA	FSU	Global Total
1950	1%	1%	2%	42%	11%	100%
1951	2%	1%	2%	40%	11%	100%
1952	2%	1%	2%	39%	12%	100%
1953	2%	1%	2%	39%	12%	100%
1954	2%	1%	2%	36%	13%	100%
1955	3%	1%	2%	36%	13%	100%
1956	3%	1%	2%	36%	14%	100%
1957	3%	1%	2%	34%	14%	100%
1958	6%	1%	2%	32%	15%	100%
1959	8%	1%	2%	31%	15%	100%
1960	8%	1%	3%	31%	15%	100%
1961	6%	1%	3%	30%	15%	100%
1962	4%	1%	3%	30%	15%	100%
1963	4%	1%	3%	30%	16%	100%
1964	4%	1%	3%	30%	16%	100%
1965	4%	1%	3%	29%	16%	100%
1966	4%	1%	4%	29%	16%	100%
1967	3%	1%	4%	30%	16%	100%
1968	3%	1%	4%	29%	16%	100%
1969	4%	1%	5%	29%	15%	100%
1970	5%	1%	5%	28%	15%	100%
1971	5%	1%	5%	27%	15%	100%
1972	6%	1%	5%	27%	15%	100%
1973	6%	1%	5%	26%	15%	100%
1974	6%	1%	5%	25%	16%	100%
1975	7%	2%	5%	25%	17%	100%
1976	7%	2%	5%	25%	16%	100%
1977	7%	2%	5%	24%	16%	100%
1978	8%	2%	5%	24%	17%	100%
1979	8%	2%	5%	24%	16%	100%
1980	8%	2%	5%	23%	17%	100%
1981	8%	2%	5%	23%	17%	100%
1982	8%	2%	5%	22%	18%	100%
1983	9%	2%	5%	22%	18%	100%
1984	9%	2%	5%	22%	18%	100%
1985	10%	2%	5%	22%	18%	100%
1986	10%	3%	4%	21%	18%	100%
1987	11%	3%	4%	22%	18%	100%
1988	11%	3%	5%	22%	18%	100%
1989	11%	3%	5%	22%	17%	100%
1990	11%	3%	5%	21%	16%	100%
1991	11%	3%	5%	21%	15%	100%
1992	12%	4%	5%	21%	9%	100%
1993	13%	4%	5%	22%	8%	100%
1994	13%	4%	5%	22%	7%	100%
1995	14%	4%	5%	22%	6%	100%
1996	14%	4%	5%	21%	6%	100%
1997	14%	4%	5%	22%	6%	100%
1998	13%	4%	5%	22%	6%	100%
1999	13%	5%	5%	22%	6%	100%
2000	12%	4%	5%	22%	6%	100%
2001	13%	5%	5%	23%	6%	100%
2002	14%	5%	5%	23%	6%	100%
2003	15%	5%	4%	22%	6%	100%
2004	17%	5%	4%	21%	5%	100%

Source: Carbon Dioxide Information Analysis Center, 2007.

Table 9B.24. Carbon Dioxide Emissions from Fossil Fuel Combustion, Cement Production, and Gas Flaring (continued)

3. Per Capita Emissions, tonnes of carbon

Year	China	India	Japan	USA	FSU	Global Average
1950	0.04	0.05	0.3	4.4	1.0	0.65
1951	0.05	0.05	0.4	4.5	1.1	0.69
1952	0.06	0.05	0.4	4.3	1.2	0.69
1953	0.06	0.05	0.5	4.3	1.2	0.69
1954	0.07	0.06	0.4	4.0	1.3	0.69
1955	0.09	0.06	0.4	4.3	1.4	0.74
1956	0.10	0.06	0.5	4.5	1.6	0.78
1957	0.11	0.07	0.6	4.4	1.7	0.80
1958	0.23	0.07	0.6	4.2	1.7	0.80
1959	0.31	0.07	0.6	4.3	1.8	0.83
1960	0.33	0.07	0.7	4.3	1.8	0.85
1961	0.23	0.08	0.8	4.2	1.9	0.84
1962	0.18	0.08	0.9	4.3	1.9	0.86
1963	0.17	0.09	0.9	4.5	2.0	0.89
1964	0.17	0.09	1.0	4.6	2.1	0.92
1965	0.18	0.09	1.1	4.7	2.2	0.94
1966	0.19	0.09	1.2	4.9	2.3	0.97
1967	0.16	0.09	1.3	5.1	2.4	0.98
1968	0.17	0.10	1.5	5.2	2.5	1.01
1969	0.20	0.10	1.7	5.4	2.5	1.05
1970	0.26	0.10	1.9	5.5	2.6	1.10
1971	0.28	0.10	2.0	5.5	2.7	1.12
1972	0.30	0.10	2.1	5.7	2.8	1.14
1973	0.30	0.10	2.3	5.8	2.9	1.18
1974	0.30	0.10	2.2	5.6	3.0	1.16
1975	0.34	0.11	2.1	5.4	3.1	1.13
1976	0.35	0.12	2.1	5.6	3.2	1.17
1977	0.39	0.13	2.2	5.6	3.3	1.19
1978	0.42	0.13	2.2	5.6	3.4	1.18
1979	0.43	0.13	2.2	5.8	3.4	1.23
1980	0.41	0.14	2.2	5.5	3.5	1.19
1981	0.40	0.14	2.1	5.2	3.4	1.13
1982	0.42	0.15	2.0	4.9	3.4	1.10
1983	0.44	0.16	2.0	4.9	3.5	1.08
1984	0.47	0.16	2.1	5.0	3.5	1.10
1985	0.51	0.17	2.1	5.0	3.7	1.11
1986	0.52	0.18	2.0	5.0	3.7	1.13
1987	0.55	0.19	2.0	5.1	3.8	1.13
1988	0.58	0.20	2.2	5.3	3.9	1.16
1989	0.58	0.21	2.3	5.3	3.8	1.16
1990	0.57	0.22	2.4	5.3	3.5	1.16
1991	0.59	0.23	2.4	5.2	3.4	1.16
1992	0.61	0.24	2.4	5.2	3.7	1.12
1993	0.64	0.25	2.4	5.4	3.3	1.10
1994	0.67	0.26	2.5	5.4	2.9	1.11
1995	0.72	0.27	2.5	5.4	2.8	1.13
1996	0.74	0.29	2.5	5.4	2.7	1.14
1997	0.72	0.29	2.5	5.6	2.6	1.14
1998	0.68	0.30	2.5	5.6	2.6	1.14
1999	0.61	0.30	2.5	5.5	2.6	1.11
2000	0.60	0.29	2.6	5.4	2.7	1.09
2001	0.73	0.31	2.6	5.6	2.8	1.15
2002	0.77	0.32	2.6	5.6	2.8	1.14
2003	0.90	0.32	2.6	5.6	2.9	1.18
2004	1.05	0.34	2.7	5.6	2.9	1.23

Source: Carbon Dioxide Information Analysis Center, 2007.

Figure 9B.17. Carbon Dioxide Emissions, Selected Countries

1. Carbon Dioxide Emissions from Fossil Fuel Combustion, Cement Production, and Gas Flaring (Mt Carbon), 1950-2004

2. Per Capita Carbon Dioxide Emissions from Fossil Fuel Combustion, Cement Production, and Gas Flaring (Tonnes Carbon per Capita), 1950-2004

N.B. Beginning in 1992, data are for Russian Federation.

Table 9B.25. GDP Structure^[1] for Selected Countries

1. 1970

	Agriculture	Industry		Services & Other
		Manufacturing	Subtotal	
China	34%	30%	38%	28%
India	45%	15%	22%	33%
Japan	6%	36%	47%	47%
USA	3%	25%	35%	63%
FSU				
World	8%	27%	38%	55%

2. 1980

	Agriculture	Industry		Services & Other
		Manufacturing	Subtotal	
China	30%	41%	49%	21%
India	38%	16%	24%	39%
Japan	4%	29%	42%	54%
USA	3%	22%	33%	64%
FSU	14%		37%	49%
World	7%	25%	38%	56%

3. 1987

	Agriculture	Industry		Services & Other
		Manufacturing	Subtotal	
China	30%		52%	17%
India	30%		31%	39%
Japan	3%		45%	52%
USA	3%		33%	65%
FSU	18%		34%	48%
World				

4. 1993

	Agriculture	Industry		Services & Other
		Manufacturing	Subtotal	
China	19%	38%	48%	33%
India	31%	17%	27%	41%
Japan	2%	24%	41%	57%
USA				
Russian Fed.	9%		51%	39%
World				

[1] Based on current price series.

Source: World Bank, various years; United Nations, 1992; International Energy Studies Group, EAP, LBNL.

Table 9B.25. GDP Structure^[1] for Selected Countries (continued)

5. 1998

	Agriculture	Industry		Services & Other
		Manufacturing	Subtotal	
China	18%	37%	49%	33%
India	25%	19%	30%	45%
Japan	2%	25%	38%	60%
USA	2%	18%	27%	71%
Russian Fed.	9%		42%	49%
World	5%	20%		61%

Source: World Bank, 2000.

6. 1999

	Agriculture	Industry	Services & Other
China	17.63%	49.42%	32.95%
India	26.22%	25.86%	47.92%
Japan	1.48%	32.13%	66.39%
USA	1.62%	24.93%	73.45%
Russian Fed.	7.37%	35.46%	57.17%

7. 2000

	Agriculture	Industry	Services & Other
China	15.89%	50.86%	33.25%
India	24.95%	26.59%	48.46%
Japan	1.36%	31.82%	66.82%
USA	1.63%	24.88%	73.49%
Russian Fed.	6.37%	38.54%	55.09%

8. 2001

	Agriculture	Industry	Services & Other
China	15.23%	51.15%	33.62%
India	24.96%	25.87%	49.17%
Japan			
USA			
Russian Fed.	6.66%	36.52%	56.81%

9. 2005

	Agriculture	Industry	Services & Other
China	13%	48%	40%
India	18%	28%	54%
Japan	2%	30%	69%
USA	1%	23%	76%
Russian Fed.	6%	40%	55%

10. 2006

	Agriculture	Industry	Services & Other
China	12%	48%	40%
India	18%	28%	55%
Japan			
USA			
Russian Fed.	5%	39%	56%

[1] Based on current price series.

Source: World Bank, online database

Table 9B.26. Demographic Data for Selected Countries

1. Population, Millions

Year	China	India	Japan	USA	Russian Federation ^[1]	World Total
1968	775	523	101	201		3,549
1969	796	535	103	203		3,622
1970	830	548	104	205	242	3,696
1971	852	560	106	208		3,771
1972	872	573	107	210		3,848
1973	892	586	108	212		3,924
1974	909	600	110	214		4,000
1975	924	613	112	216	253	4,075
1976	937	628	113	218		4,148
1977	950	643	114	220		4,221
1978	963	657	115	223		4,293
1979	975	672	116	225		4,366
1980	987	687	117	228		4,440
1981	1,001	690	118	230	268	4,517
1982	1,017	705	118	232	270	4,594
1983	1,030	720	119	234	272	4,674
1984	1,044	736	120	236	275	4,755
1985	1,059	751	121	238	277	4,837
1986	1,075	766	121	241	280	4,917
1987	1,093	781	122	243	283	5,024
1988	1,110	797	123	245	285	5,115
1989	1,127	812	123	247	288	5,201
1990	1,143	835	123	250	148	5,284
1991	1,158	852	124	253	148	5,351
1992	1,172	869	124	255	148	5,438
1993	1,185	886	125	258	148	5,509
1994	1,199	904	125	261	148	5,588
1995	1,211	922	125	263	148	5,666
1996	1,224	940	126	265	148	5,745
1997	1,236	955	126	268	147	5,823
1998	1,242	982	126	275	147	5,898
1999	1,254	999	127	279	146	5,976
2000	1,262	1,016	127	282	146	6,053
2001	1,272	1,032	127	285	145	6,129
2002	1,281	1,048	127	288	144	6,201
2003	1,288	1,064	128	291	145	6,308
2004	1,296	1,080	128	294	144	6,384
2005	1,305	1,095	128	297	143	6,462
2006	1,312	1,110	128	299	143	6,538

[1] Data after 1990 are for Russian Federation only.

Source: International Energy Studies Group, EAP, LBNL; 1960-1975 Soviet Union data from International Energy Studies Group, EAP, LBNL; India, Russian Federation and World population 1990-99 from UN Statistics; China data from China Statistical Yearbook, various years; world population from World Bank.

2. Life Expectancy at Birth for Selected Countries, 1990-2002, (years)

Year	China	India	Japan	USA	Russian Federation ^[1]	World Total
1990	70	59	79	76		66
1991	69	60	79	76	69	66
1992	69	61	79	77	69	66
1997	68 M, 71 F	62 M, 64 F	77 M, 83 F	73 M, 79 F	61 M, 73 F	65 M, 69 F
1998			81	77	67	
1999			81	77	66	
2000	70	63	81	77	65	66
2001	70	63	81	78	66	67
2002	71	63	81	78	66	67
2003			82	77	65	
2004	71		82	77	65	
2005	72	64	82	78	65	68
2006	72	64	82	78	66	68

[1] 1990, 1991 data for Former Soviet Union.

Source: World Bank, various years, and online databases.

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Table 10B.1. Gross National Product and Gross Domestic Product

1. Total Gross National Product

Year	Billion Current Yuan	Index Based on Constant Prices ^[1] preceding year=100	Billion Constant 2000 Yuan ^[2]	Deflators: 2000 Yuan	Nominal Growth	Real Growth
1952	67.9		276.9	0.245		
1953	82.4	115.6	320.1	0.257	21.4%	15.6%
1954	85.9	104.2	333.5	0.258	4.2%	4.2%
1955	91.0	106.8	356.2	0.255	5.9%	6.8%
1956	102.8	115.0	409.6	0.251	13.0%	15.0%
1957	106.8	105.1	430.5	0.248	3.9%	5.1%
1958	130.7	121.3	522.2	0.250	22.4%	21.3%
1959	143.9	108.8	568.2	0.253	10.1%	8.8%
1960	145.7	99.7	566.5	0.257	1.3%	-0.3%
1961	122.0	72.7	411.8	0.296	-16.3%	-27.3%
1962	114.9	94.4	388.8	0.296	-5.8%	-5.6%
1963	123.3	110.2	428.4	0.288	7.3%	10.2%
1964	145.4	118.3	506.8	0.287	17.9%	18.3%
1965	171.6	117.0	593.0	0.289	18.0%	17.0%
1966	186.8	110.7	656.4	0.285	8.9%	10.7%
1967	177.4	94.3	619.0	0.287	-5.0%	-5.7%
1968	172.3	95.9	593.6	0.290	-2.9%	-4.1%
1969	193.8	116.9	694.0	0.279	12.5%	16.9%
1970	225.3	119.4	828.6	0.272	16.2%	19.4%
1971	242.6	107.0	886.6	0.274	7.7%	7.0%
1972	251.8	103.8	920.3	0.274	3.8%	3.8%
1973	272.1	107.9	993.0	0.274	8.1%	7.9%
1974	279.0	102.3	1,015.8	0.275	2.5%	2.3%
1975	299.7	108.7	1,104.2	0.271	7.4%	8.7%
1976	294.4	98.4	1,086.5	0.271	-1.8%	-1.6%
1977	320.2	107.6	1,169.1	0.274	8.8%	7.6%
1978	364.5	111.7	1,305.5	0.279	13.8%	11.7%
1979	406.3	107.6	1,404.4	0.289	11.4%	7.6%
1980	454.6	107.8	1,514.5	0.300	11.9%	7.8%
1981	488.9	105.2	1,593.3	0.307	7.6%	5.2%
1982	533.0	109.2	1,740.6	0.306	9.0%	9.2%
1983	598.6	111.1	1,934.4	0.309	12.3%	11.1%
1984	724.4	115.3	2,230.4	0.325	21.0%	15.3%
1985	904.1	113.2	2,525.2	0.358	24.8%	13.2%
1986	1,027.4	108.5	2,740.8	0.375	13.6%	8.5%
1987	1,205.1	111.5	3,056.5	0.394	17.3%	11.5%
1988	1,503.7	111.3	3,402.2	0.442	24.8%	11.3%
1989	1,700.1	104.2	3,543.7	0.480	13.1%	4.2%
1990	1,871.8	104.1	3,687.8	0.508	10.1%	4.1%
1991	2,182.6	109.1	4,023.7	0.542	16.6%	9.1%
1992	2,693.7	114.1	4,589.6	0.587	23.4%	14.1%
1993	3,526.0	113.7	5,216.9	0.676	30.9%	13.7%
1994	4,810.8	113.1	5,900.7	0.815	36.4%	13.1%
1995	5,981.1	109.3	6,451.5	0.927	24.3%	9.3%
1996	7,014.2	110.2	7,109.0	0.987	17.3%	10.2%
1997	7,806.1	109.6	7,793.5	1.002	11.3%	9.6%
1998	8,302.4	107.3	8,363.3	0.993	6.4%	7.3%
1999	8,847.9	107.9	9,027.8	0.980	6.6%	7.9%
2000	9,800.0	108.6	9,800.0	1.000	10.8%	8.6%
2001	10,806.8	108.1	10,589.5	1.021	10.3%	8.1%
2002	11,909.6	109.5	11,600.3	1.027	10.2%	9.5%
2003	13,517.4	110.6	12,834.3	1.053	13.5%	10.6%
2004	15,958.7	110.4	14,170.6	1.126	18.1%	10.4%
2005	18,473.9	111.2	15,751.8	1.173	15.8%	11.2%
2006	21,180.8	111.1	17,493.1	1.211	14.7%	11.1%

[1] These index numbers can be thought of as percentages or real growth rates, e.g., at constant prices, GNP in 2002 was 109.5% of GNP in 2001. Total GNP in current yuan is slightly different from sum of GNP for sectors due to rounding.

[2] GNP in constant yuan = base year GNP in current yuan [1] (index for current year ÷ index for base year). Total GNP in real yuan is slightly different from sum of GNP for sectors due to rounding and differences in deflators.

Source: NBS, China Industry Economy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 10B.1. Gross National Product and Gross Domestic Product (continued)

2. Total Gross Domestic Product

Year	Billion Current Yuan	Index Based on Constant Prices ^[1] preceding year=100	Billion Constant 2000 Yuan ^[2]	Deflators: 2000 Yuan	Nominal Growth	Real Growth
1952	67.9		276.9	0.245		
1953	82.4	115.6	320.1	0.257	21.4%	15.6%
1954	85.9	104.2	333.5	0.258	4.2%	4.2%
1955	91.0	106.8	356.2	0.255	5.9%	6.8%
1956	102.8	115.0	409.6	0.251	13.0%	15.0%
1957	106.8	105.1	430.5	0.248	3.9%	5.1%
1958	130.7	121.3	522.2	0.250	22.4%	21.3%
1959	143.9	108.8	568.2	0.253	10.1%	8.8%
1960	145.7	99.7	566.5	0.257	1.3%	-0.3%
1961	122.0	72.7	411.8	0.296	-16.3%	-27.3%
1962	114.9	94.4	388.8	0.296	-5.8%	-5.6%
1963	123.3	110.2	428.4	0.288	7.3%	10.2%
1964	145.4	118.3	506.8	0.287	17.9%	18.3%
1965	171.6	117.0	593.0	0.289	18.0%	17.0%
1966	186.8	110.7	656.4	0.285	8.9%	10.7%
1967	177.4	94.3	619.0	0.287	-5.0%	-5.7%
1968	172.3	95.9	593.6	0.290	-2.9%	-4.1%
1969	193.8	116.9	694.0	0.279	12.5%	16.9%
1970	225.3	119.4	828.6	0.272	16.2%	19.4%
1971	242.6	107.0	886.6	0.274	7.7%	7.0%
1972	251.8	103.8	920.3	0.274	3.8%	3.8%
1973	272.1	107.9	993.0	0.274	8.1%	7.9%
1974	279.0	102.3	1,015.8	0.275	2.5%	2.3%
1975	299.7	108.7	1,104.2	0.271	7.4%	8.7%
1976	294.4	98.4	1,086.5	0.271	-1.8%	-1.6%
1977	320.2	107.6	1,169.1	0.274	8.8%	7.6%
1978	364.5	111.7	1,305.5	0.279	13.8%	11.7%
1979	406.3	107.6	1,404.4	0.289	11.4%	7.6%
1980	454.6	107.8	1,514.5	0.300	11.9%	7.8%
1981	489.2	105.2	1,594.0	0.307	7.6%	5.2%
1982	532.3	109.1	1,738.3	0.306	8.8%	9.1%
1983	596.3	110.9	1,927.0	0.309	12.0%	10.9%
1984	720.8	115.2	2,219.4	0.325	20.9%	15.2%
1985	901.6	113.5	2,518.3	0.358	25.1%	13.5%
1986	1,027.5	108.8	2,741.1	0.375	14.0%	8.8%
1987	1,205.9	111.6	3,058.6	0.394	17.4%	11.6%
1988	1,504.3	111.3	3,403.6	0.442	24.7%	11.3%
1989	1,699.2	104.1	3,541.9	0.480	13.0%	4.1%
1990	1,866.8	103.8	3,677.9	0.508	9.9%	3.8%
1991	2,178.1	109.2	4,015.4	0.542	16.7%	9.2%
1992	2,692.3	114.2	4,587.3	0.587	23.6%	14.2%
1993	3,533.4	114.0	5,227.8	0.676	31.2%	14.0%
1994	4,819.8	113.1	5,911.7	0.815	36.4%	13.1%
1995	6,079.4	110.9	6,557.5	0.927	26.1%	10.9%
1996	7,117.7	110.0	7,213.8	0.987	17.1%	10.0%
1997	7,897.3	109.3	7,884.5	1.002	11.0%	9.3%
1998	8,440.2	107.8	8,502.1	0.993	6.9%	7.8%
1999	8,967.7	107.6	9,150.0	0.980	6.2%	7.6%
2000	9,921.5	108.4	9,921.5	1.000	10.6%	8.4%
2001	10,965.5	108.3	10,745.0	1.021	10.5%	8.3%
2002	12,033.3	109.1	11,720.8	1.027	9.7%	9.1%
2003	13,582.3	110.0	12,895.9	1.053	12.9%	10.0%
2004	15,987.8	110.1	14,196.4	1.126	17.7%	10.1%
2005	18,386.8	110.4	15,677.5	1.173	15.0%	10.4%
2006	21,087.1	111.1	17,415.8	1.211	14.7%	11.1%

[1] These index numbers can be thought of as percentages or real growth rates, e.g., at constant prices, GDP in 2006 was 110.7% of GDP in 2005. Total GDP in current yuan is slightly different from sum of GDP for sectors due to rounding.

[2] GNP in constant yuan = base year GNP in current yuan [1] (index for current year ÷ index for base year). Total GNP in real yuan is slightly different from sum of GNP for sectors due to rounding and differences in deflators.

Source: NBS, China Industry Economy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 10B.1. Gross National Product and Gross Domestic Product (continued)

3. Agricultural Sector GDP

Year	Billion Current Yuan	Index Based on Constant Prices ^[1] preceding year=100	Billion Constant 2000 Yuan ^[2]	Sectoral Share ^[3] % of 2000 Yuan total	Deflators: 2000 Yuan	Nominal Growth	Real Growth
1952	34.3		318.5	71.2%	0.108		
1953	37.8	101.9	324.6	66.1%	0.116	10.2%	1.9%
1954	39.2	101.7	330.1	65.8%	0.119	3.7%	1.7%
1955	42.1	107.9	356.1	66.3%	0.118	7.4%	7.9%
1956	44.4	104.7	372.9	63.3%	0.119	5.4%	4.7%
1957	43.0	103.1	384.4	62.7%	0.112	-3.1%	3.1%
1958	44.6	100.4	386.0	56.9%	0.116	3.7%	0.4%
1959	38.4	84.1	324.6	48.2%	0.118	-13.9%	-15.9%
1960	34.1	83.6	271.4	42.6%	0.126	-11.2%	-16.4%
1961	44.1	101.4	275.2	52.4%	0.160	29.5%	1.4%
1962	45.3	104.5	287.6	56.1%	0.158	2.7%	4.5%
1963	49.8	111.3	320.1	56.9%	0.155	9.8%	11.3%
1964	55.9	112.9	361.3	55.6%	0.155	12.4%	12.9%
1965	65.1	109.7	396.4	53.7%	0.164	16.5%	9.7%
1966	70.2	107.2	424.9	53.7%	0.165	7.8%	7.2%
1967	71.4	101.9	433.0	55.6%	0.165	1.7%	1.9%
1968	72.6	98.4	426.1	56.0%	0.170	1.7%	-1.6%
1969	73.6	100.8	429.5	51.6%	0.171	1.4%	0.8%
1970	79.3	107.7	462.6	49.3%	0.172	7.8%	7.7%
1971	82.6	101.9	471.3	47.6%	0.175	4.2%	1.9%
1972	82.7	99.1	467.1	46.0%	0.177	0.1%	-0.9%
1973	90.8	109.0	509.1	46.5%	0.178	9.7%	9.0%
1974	94.5	104.1	530.0	47.1%	0.178	4.2%	4.1%
1975	97.1	102.0	540.6	45.2%	0.180	2.7%	2.0%
1976	96.7	98.2	530.9	45.0%	0.182	-0.4%	-1.8%
1977	94.2	97.8	519.2	41.8%	0.181	-2.6%	-2.2%
1978	102.8	104.1	540.5	39.6%	0.190	9.1%	4.1%
1979	127.0	106.1	573.5	39.1%	0.221	23.6%	6.1%
1980	137.2	98.5	564.9	36.6%	0.243	8.0%	-1.5%
1981	155.9	107.0	604.4	36.8%	0.258	13.7%	7.0%
1982	177.7	111.5	673.9	37.3%	0.264	14.0%	11.5%
1983	197.8	108.3	729.8	36.3%	0.271	11.3%	8.3%
1984	231.6	112.9	824.0	35.5%	0.281	17.1%	12.9%
1985	256.4	101.8	838.8	32.1%	0.306	10.7%	1.8%
1986	278.9	103.3	866.5	30.6%	0.322	8.7%	3.3%
1987	323.3	104.7	907.2	28.8%	0.356	15.9%	4.7%
1988	386.5	102.5	929.9	26.7%	0.416	19.6%	2.5%
1989	426.6	103.1	958.7	26.4%	0.445	10.4%	3.1%
1990	506.2	107.3	1,028.7	27.2%	0.492	18.7%	7.3%
1991	534.2	102.4	1,053.4	25.6%	0.507	5.5%	2.4%
1992	586.7	104.7	1,102.9	23.6%	0.532	9.8%	4.7%
1993	696.4	104.7	1,154.8	21.8%	0.603	18.7%	4.7%
1994	957.3	104.0	1,200.9	20.2%	0.797	37.5%	4.0%
1995	1,213.6	105.0	1,261.0	19.2%	0.962	26.8%	5.0%
1996	1,401.5	105.1	1,325.3	18.4%	1.058	15.5%	5.1%
1997	1,444.2	103.5	1,371.7	17.4%	1.053	3.0%	3.5%
1998	1,481.8	103.5	1,419.7	16.7%	1.044	2.6%	3.5%
1999	1,477.0	102.8	1,459.4	16.0%	1.012	-0.3%	2.8%
2000	1,494.5	102.4	1,494.5	15.1%	1.000	1.2%	2.4%
2001	1,578.1	102.8	1,536.3	14.3%	1.027	5.6%	2.8%
2002	1,653.7	102.9	1,580.9	13.5%	1.046	4.8%	2.9%
2003	1,738.2	102.5	1,620.4	12.6%	1.073	5.1%	2.5%
2004	2,141.3	106.3	1,722.5	12.1%	1.243	23.2%	6.3%
2005	2,307.0	105.2	1,812.0	11.6%	1.273	7.7%	5.2%
2006	2,473.7	105.0	1,902.6	10.9%	1.300	7.2%	5.0%

[1] These index numbers can be thought of as percentages or real growth rates, e.g., at constant prices, GDP in 2006 was 105% of GDP in 2005. Total GDP in current yuan is slightly different from sum of GDP for sectors due to rounding.

[2] GDP in constant yuan = base year GDP in current yuan [1] (index for current year ÷ index for base year). Total GDP in real yuan is slightly different from sum of GDP for sectors due to rounding and differences in deflators.

[3] Based on sum of real sectoral GDP.

Source: NBS, China Industry Economy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 10B.1. Gross National Product and Gross Domestic Product (continued)

4. Industrial Sector GDP (Includes mining, manufacturing and construction)

Year	Billion Current Yuan	Index Based on Constant Prices ^[1] preceding year=100	Billion Constant 2000 Yuan ^[2]	Sectoral Share ^[3]	Deflators: 2000 Yuan	Nominal Growth	Real Growth
1952	14.2		27.7	6.2%	0.513		
1953	19.3	135.8	37.6	7.6%	0.513	35.8%	35.8%
1954	21.2	115.7	43.5	8.7%	0.487	10.0%	15.7%
1955	22.2	107.6	46.8	8.7%	0.475	5.0%	7.6%
1956	28.1	134.5	62.9	10.7%	0.446	26.3%	34.5%
1957	31.7	108.0	67.9	11.1%	0.467	12.9%	8.0%
1958	48.4	152.9	103.8	15.3%	0.466	52.5%	52.9%
1959	61.6	125.8	130.6	19.4%	0.471	27.3%	25.8%
1960	64.8	105.6	138.0	21.6%	0.470	5.3%	5.6%
1961	38.9	57.9	79.9	15.2%	0.487	-40.0%	-42.1%
1962	35.9	89.2	71.2	13.9%	0.504	-7.6%	-10.8%
1963	40.8	114.5	81.6	14.5%	0.500	13.4%	14.5%
1964	51.4	125.6	102.5	15.8%	0.501	26.0%	25.6%
1965	60.2	124.2	127.3	17.2%	0.473	17.3%	24.2%
1966	71.0	122.4	155.8	19.7%	0.455	17.8%	22.4%
1967	60.3	85.7	133.5	17.1%	0.452	-15.0%	-14.3%
1968	53.7	90.8	121.2	15.9%	0.443	-10.9%	-9.2%
1969	68.9	133.1	161.3	19.4%	0.427	28.3%	33.1%
1970	91.2	134.8	217.5	23.2%	0.419	32.4%	34.8%
1971	102.3	112.3	244.2	24.7%	0.419	12.1%	12.3%
1972	108.4	106.7	260.6	25.7%	0.416	6.0%	6.7%
1973	117.3	108.3	282.2	25.8%	0.416	8.2%	8.3%
1974	119.2	101.4	286.2	25.4%	0.417	1.6%	1.4%
1975	137.1	115.8	331.4	27.7%	0.414	15.0%	15.8%
1976	133.7	97.5	323.1	27.4%	0.414	-2.4%	-2.5%
1977	150.9	113.3	366.1	29.5%	0.412	12.9%	13.3%
1978	174.5	115.0	421.1	30.8%	0.414	15.6%	15.0%
1979	191.4	108.2	455.6	31.1%	0.420	9.6%	8.2%
1980	219.2	113.6	517.5	33.5%	0.424	14.6%	13.6%
1981	225.6	101.9	527.1	32.1%	0.428	2.9%	1.9%
1982	238.3	105.6	556.4	30.8%	0.428	5.7%	5.6%
1983	264.6	110.4	614.1	30.6%	0.431	11.0%	10.4%
1984	310.6	114.5	703.1	30.3%	0.442	17.4%	14.5%
1985	386.7	118.6	833.6	31.9%	0.464	24.5%	18.6%
1986	449.3	110.2	918.8	32.4%	0.489	16.2%	10.2%
1987	525.2	113.7	1,044.6	33.1%	0.503	16.9%	13.7%
1988	658.7	114.5	1,196.3	34.3%	0.551	25.4%	14.5%
1989	727.8	103.8	1,241.3	34.2%	0.586	10.5%	3.8%
1990	771.7	103.2	1,280.7	33.9%	0.603	6.0%	3.2%
1991	910.2	113.9	1,458.1	35.5%	0.624	17.9%	13.9%
1992	1,170.0	121.2	1,766.6	37.9%	0.662	28.5%	21.2%
1993	1,645.4	119.9	2,117.5	40.1%	0.777	40.6%	19.9%
1994	2,244.5	118.4	2,506.3	42.2%	0.896	36.4%	18.4%
1995	2,867.9	113.9	2,854.1	43.4%	1.005	27.8%	13.9%
1996	3,383.5	112.1	3,199.6	44.4%	1.057	18.0%	12.1%
1997	3,754.3	110.5	3,534.9	44.8%	1.062	11.0%	10.5%
1998	3,900.4	108.9	3,849.8	45.3%	1.013	3.9%	8.9%
1999	4,103.4	108.1	4,163.1	45.5%	0.986	5.2%	8.1%
2000	4,555.6	109.4	4,555.6	45.9%	1.000	11.0%	9.4%
2001	4,951.2	108.4	4,940.1	46.0%	1.002	8.7%	8.4%
2002	5,389.7	109.8	5,425.7	46.3%	0.993	8.9%	9.8%
2003	6,243.6	112.7	6,113.3	47.4%	1.021	15.8%	12.7%
2004	7,390.4	111.1	6,792.6	47.8%	1.088	18.4%	11.1%
2005	8,736.5	111.7	7,587.0	48.4%	1.151	18.2%	11.7%
2006	10,316.2	113.0	8,570.8	49.2%	1.204	18.1%	13.0%

[1] These index numbers can be thought of as percentages or real growth rates; total GDP in current yuan is slightly different from sum of GDP for sectors due to rounding.

[2] GDP in constant yuan = base year GDP in current yuan [1] (index for current year ÷ index for base year). Total GDP in real yuan is slightly different from sum of GDP for sectors due to rounding and differences in deflators.

[3] Based on sum of real sectoral GDP.

Source: NBS, China Industry Economy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 10B.1. Gross National Product and Gross Domestic Product (continued)

5. Manufacturing Sector GDP (contained within Industrial Sectors above)

Year	Billion Current Yuan	Index Based on Constant Prices ^[1] preceding year=100	Billion Constant 2000 Yuan ^[2]	Sectoral Share ^[3]	Deflators: 2000 Yuan	Nominal Growth	Real Growth
1952	12.0		21.1	4.7%	0.567		
1953	16.4	135.7	28.6	5.8%	0.571	36.5%	35.7%
1954	18.5	119.3	34.2	6.8%	0.540	13.0%	19.3%
1955	19.1	106.6	36.4	6.8%	0.525	3.5%	6.6%
1956	22.5	128.6	46.9	8.0%	0.480	17.5%	28.6%
1957	27.1	111.4	52.2	8.5%	0.519	20.6%	11.4%
1958	41.5	153.4	80.1	11.8%	0.518	53.0%	53.4%
1959	53.9	129.1	103.4	15.4%	0.521	29.9%	29.1%
1960	56.8	106.1	109.7	17.2%	0.518	5.5%	6.1%
1961	36.2	61.0	66.9	12.8%	0.541	-36.3%	-39.0%
1962	32.5	86.7	58.0	11.3%	0.561	-10.1%	-13.3%
1963	36.6	113.3	65.7	11.7%	0.556	12.4%	13.3%
1964	46.1	125.6	82.5	12.7%	0.559	26.1%	25.6%
1965	54.7	125.8	103.8	14.1%	0.526	18.5%	25.8%
1966	64.9	123.8	128.5	16.2%	0.505	18.7%	23.8%
1967	54.5	84.9	109.1	14.0%	0.499	-16.0%	-15.1%
1968	49.0	91.8	100.2	13.2%	0.489	-10.0%	-8.2%
1969	62.6	133.0	133.2	16.0%	0.470	27.7%	33.0%
1970	82.8	135.2	180.1	19.2%	0.460	32.3%	35.2%
1971	92.7	112.3	202.3	20.4%	0.458	11.9%	12.3%
1972	99.0	107.6	217.7	21.4%	0.455	6.8%	7.6%
1973	107.3	108.8	236.8	21.6%	0.453	8.3%	8.8%
1974	108.4	101.0	239.2	21.3%	0.453	1.0%	1.0%
1975	124.5	116.0	277.5	23.2%	0.449	14.9%	16.0%
1976	120.5	96.9	268.9	22.8%	0.448	-3.2%	-3.1%
1977	137.2	114.4	307.6	24.8%	0.446	13.9%	14.4%
1978	160.7	116.4	358.0	26.2%	0.449	17.1%	16.4%
1979	177.0	108.7	389.0	26.5%	0.455	10.1%	8.7%
1980	199.7	112.7	438.2	28.4%	0.456	12.8%	12.7%
1981	204.8	101.7	445.9	27.1%	0.459	2.6%	1.7%
1982	216.2	105.8	471.6	26.1%	0.459	5.6%	5.8%
1983	237.6	109.7	517.4	25.8%	0.459	9.9%	9.7%
1984	278.9	114.9	594.3	25.6%	0.469	17.4%	14.9%
1985	344.9	118.2	702.5	26.9%	0.491	23.7%	18.2%
1986	396.7	109.6	770.2	27.2%	0.515	15.0%	9.6%
1987	458.6	113.2	872.2	27.7%	0.526	15.6%	13.2%
1988	577.7	115.3	1,005.3	28.8%	0.575	26.0%	15.3%
1989	648.4	105.1	1,056.1	29.1%	0.614	12.2%	5.1%
1990	685.8	103.4	1,091.5	28.9%	0.628	5.8%	3.4%
1991	808.7	114.4	1,248.6	30.4%	0.648	17.9%	14.4%
1992	1,028.5	121.2	1,512.9	32.4%	0.680	27.2%	21.2%
1993	1,418.8	120.1	1,816.8	34.4%	0.781	38.0%	20.1%
1994	1,948.1	118.9	2,160.4	36.3%	0.902	37.3%	18.9%
1995	2,495.1	114.0	2,463.8	37.5%	1.013	28.1%	14.0%
1996	2,944.8	112.5	2,771.9	38.4%	1.062	18.0%	12.5%
1997	3,292.1	111.3	3,085.7	39.1%	1.067	11.8%	11.3%
1998	3,401.8	108.9	3,360.3	39.6%	1.012	3.3%	8.9%
1999	3,586.1	108.5	3,646.5	39.9%	0.983	5.4%	8.5%
2000	4,003.4	109.8	4,003.4	40.4%	1.000	11.6%	9.8%
2001	4,358.1	108.7	4,350.5	40.5%	1.002	8.9%	8.7%
2002	4,743.1	110.0	4,784.2	40.8%	0.991	8.8%	10.0%
2003	5,494.6	112.8	5,394.2	41.8%	1.019	15.8%	12.8%
2004	6,521.0	111.5	6,015.1	42.4%	1.084	18.7%	11.5%
2005	7,723.1	111.6	6,711.5	42.8%	1.151	18.4%	11.6%
2006	9,131.1	112.9	7,575.6	43.5%	1.205	18.2%	12.9%

[1] These index numbers can be thought of as percentages or real growth rates; total GDP in current yuan is slightly different from sum of GDP for sectors due to rounding.

[2] GDP in constant yuan = base year GDP in current yuan [1] (index for current year ÷ index for base year). Total GDP in real yuan is slightly different from sum of GDP for sectors due to rounding and differences in deflators.

[3] Based on sum of real sectoral GDP.

Source: NBS, China Industry Economy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Table 10B.1. Gross National Product and Gross Domestic Product (continued)

6. Service Sector GDP

Year	Billion Current Yuan	Index Based on Constant Prices ^[1] preceding year=100	Billion Constant 2000 Yuan ^[2]	Sectoral Share ^[3]	Deflators: 2000 Yuan	Nominal Growth	Real Growth
1952	19.4		101.3	22.6%	0.192		
1953	25.4	127.3	129.0	26.3%	0.197	30.5%	27.3%
1954	25.5	99.4	128.2	25.6%	0.199	0.7%	-0.6%
1955	26.7	104.6	134.1	25.0%	0.199	4.5%	4.6%
1956	30.3	114.1	153.0	26.0%	0.198	13.7%	14.1%
1957	32.1	104.8	160.4	26.2%	0.200	5.8%	4.8%
1958	37.8	117.9	189.1	27.9%	0.200	17.6%	17.9%
1959	44.0	115.2	217.8	32.4%	0.202	16.4%	15.2%
1960	46.8	104.8	228.3	35.8%	0.205	6.5%	4.8%
1961	39.0	74.3	169.6	32.3%	0.230	-16.7%	-25.7%
1962	33.7	90.8	154.0	30.0%	0.219	-13.6%	-9.2%
1963	32.8	104.4	160.8	28.6%	0.204	-2.6%	4.4%
1964	38.2	115.5	185.7	28.6%	0.205	16.2%	15.5%
1965	46.3	115.8	215.1	29.1%	0.215	21.3%	15.8%
1966	45.6	98.2	211.2	26.7%	0.216	-1.4%	-1.8%
1967	45.7	100.5	212.2	27.3%	0.215	0.1%	0.5%
1968	46.0	100.6	213.5	28.1%	0.215	0.6%	0.6%
1969	51.3	113.3	241.9	29.1%	0.212	11.6%	13.3%
1970	54.7	107.1	259.1	27.6%	0.211	6.7%	7.1%
1971	57.7	105.8	274.1	27.7%	0.211	5.5%	5.8%
1972	60.7	105.0	287.8	28.3%	0.211	5.1%	5.0%
1973	64.0	105.5	303.6	27.7%	0.211	5.6%	5.5%
1974	65.3	101.6	308.5	27.4%	0.212	1.9%	1.6%
1975	65.6	104.9	323.6	27.1%	0.203	0.5%	4.9%
1976	64.0	100.4	324.9	27.6%	0.197	-2.5%	0.4%
1977	75.1	109.5	355.8	28.7%	0.211	17.4%	9.5%
1978	87.2	113.8	404.9	29.6%	0.215	16.2%	13.8%
1979	87.9	107.9	436.7	29.8%	0.201	0.7%	7.9%
1980	98.2	106.0	462.9	30.0%	0.212	11.7%	6.0%
1981	107.7	110.4	511.2	31.1%	0.211	9.6%	10.4%
1982	116.3	113.0	577.5	31.9%	0.201	8.0%	13.0%
1983	133.8	115.2	665.1	33.1%	0.201	15.1%	15.2%
1984	178.6	119.3	793.8	34.2%	0.225	33.5%	19.3%
1985	258.5	118.2	938.0	35.9%	0.276	44.7%	18.2%
1986	299.4	112.0	1,051.0	37.1%	0.285	15.8%	12.0%
1987	357.4	114.4	1,201.9	38.1%	0.297	19.4%	14.4%
1988	459.0	113.2	1,360.0	39.0%	0.338	28.4%	13.2%
1989	544.8	105.4	1,432.9	39.4%	0.380	18.7%	5.4%
1990	588.8	102.3	1,466.4	38.8%	0.402	8.1%	2.3%
1991	733.7	108.9	1,596.5	38.9%	0.460	24.6%	8.9%
1992	935.7	112.4	1,795.1	38.5%	0.521	27.5%	12.4%
1993	1,191.6	112.2	2,013.9	38.1%	0.592	27.3%	12.2%
1994	1,618.0	111.1	2,237.3	37.6%	0.723	35.8%	11.1%
1995	1,997.8	109.8	2,457.4	37.4%	0.813	23.5%	9.8%
1996	2,332.6	109.4	2,689.0	37.3%	0.867	16.8%	9.4%
1997	2,698.8	110.7	2,977.2	37.8%	0.906	15.7%	10.7%
1998	3,058.0	108.4	3,226.5	38.0%	0.948	13.3%	8.4%
1999	3,387.3	109.3	3,527.5	38.6%	0.960	10.8%	9.3%
2000	3,871.4	109.7	3,871.4	39.0%	1.000	14.3%	9.7%
2001	4,436.2	110.3	4,268.5	39.7%	1.039	14.6%	10.3%
2002	4,989.9	110.4	4,714.2	40.2%	1.058	12.5%	10.4%
2003	5,600.5	109.5	5,162.2	40.0%	1.085	12.2%	9.5%
2004	6,456.1	110.1	5,681.4	40.0%	1.136	15.3%	10.1%
2005	7,343.3	110.5	6,277.9	40.0%	1.170	13.7%	10.5%
2006	8,297.2	110.8	6,953.7	39.9%	1.193	13.0%	10.8%

[1] These index numbers can be thought of as percentages or real growth rates; total GDP in current yuan is slightly different from sum of GDP for sectors due to rounding.

[2] GDP in constant yuan = base year GDP in current yuan [1] (index for current year ÷ index for base year). Total GDP in real yuan is slightly different from sum of GDP for sectors due to rounding and differences in deflators.

[3] Based on sum of real sectoral GDP.

Source: NBS, China Industry Economy Statistical Yearbook, various years; NBS, China Statistical Yearbook, various years.

Figure 10B.1. Gross Domestic Product by Sector, 1952-2006

Figure 10B.2. Sectoral Shares of GDP, 1952-2006

Table 10B.2. Per Capita Gross Domestic Product

Year	Total Population (Millions)	GDP (Billion Current Yuan)	GDP (Billion Constant 2000 Yuan)	Per Capita GDP (Current Yuan)	Per Capita GDP (Constant 2000 Yuan)	Nominal Growth Rate	Real Growth Rate
1978	962.6	364.5	1,305.6	378.7	1,356.4		
1979	975.4	406.3	1,404.9	416.5	1,440.3	10.0%	6.2%
1980	987.1	454.6	1,514.5	460.5	1,534.3	10.6%	6.5%
1981	1,000.7	489.2	1,593.2	488.8	1,592.1	6.1%	3.8%
1982	1,016.5	532.3	1,738.2	523.7	1,709.9	7.1%	7.4%
1983	1,030.1	596.3	1,927.7	578.9	1,871.4	10.5%	9.4%
1984	1,043.6	720.8	2,220.7	690.7	2,127.9	19.3%	13.7%
1985	1,058.5	901.6	2,520.5	851.8	2,381.1	23.3%	11.9%
1986	1,075.1	1,027.5	2,742.2	955.8	2,550.8	12.2%	7.1%
1987	1,093.0	1,205.9	3,060.4	1,103.3	2,800.0	15.4%	9.8%
1988	1,110.3	1,504.3	3,406.2	1,354.9	3,067.9	22.8%	9.6%
1989	1,127.0	1,699.2	3,545.8	1,507.7	3,146.1	11.3%	2.6%
1990	1,143.3	1,866.8	3,680.6	1,632.8	3,219.2	8.3%	2.3%
1991	1,158.2	2,178.1	4,019.2	1,880.6	3,470.1	15.2%	7.8%
1992	1,171.7	2,692.3	4,589.9	2,297.8	3,917.3	22.2%	12.9%
1993	1,185.2	3,533.4	5,232.5	2,981.3	4,415.0	29.7%	12.7%
1994	1,198.5	4,819.8	5,917.9	4,021.5	4,937.8	34.9%	11.8%
1995	1,211.2	6,079.4	6,563.0	5,019.3	5,418.5	24.8%	9.7%
1996	1,223.9	7,117.7	7,219.3	5,815.6	5,898.6	15.9%	8.9%
1997	1,236.3	7,897.3	7,890.7	6,388.1	6,382.7	9.8%	8.2%
1998	1,248.1	8,440.2	8,506.2	6,762.5	6,815.3	5.9%	6.8%
1999	1,259.1	8,967.7	9,152.6	7,122.4	7,269.2	5.3%	6.7%
2000	1,265.8	9,921.5	9,921.5	7,837.9	7,837.9	10.0%	7.8%
2001	1,276.3	10,965.5	10,744.9	8,591.8	8,419.0	9.6%	7.4%
2002	1,284.5	12,033.3	11,722.7	9,367.8	9,126.1	9.0%	8.4%
2003	1,292.3	13,582.3	12,895.0	10,510.4	9,978.6	12.2%	9.3%
2004	1,299.9	15,987.8	14,197.4	12,299.5	10,922.1	17.0%	9.5%
2005	1,307.6	18,386.8	15,673.9	14,061.9	11,987.2	14.3%	9.8%
2006	1,314.5	20,940.7	17,351.0	15,930.8	13,199.9	13.3%	10.1%

Source: NBS, China Statistical Yearbook, various years; NBS, China Statistical Abstract 2007.

Table 10B.3. Gross Domestic Product by Province

1. Gross Domestic Product (current yuan)

		GDP (billion current yuan)																	Average Annual Growth
Planning Region	Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
North	Beijing	50.08	59.89	70.91	86.35	108.40	139.49	161.57	181.01	201.13	217.45	247.88	371.05	433.04	502.38	606.03	688.63	772.03	18.6%
	Tianjin	31.10	34.28	41.12	53.61	72.51	92.01	110.24	124.04	133.64	145.01	163.94	191.91	215.08	257.80	311.10	369.76	433.77	17.9%
	Hebei	83.61	95.96	115.51	156.66	218.75	284.95	345.30	395.38	425.60	458.92	508.90	551.68	601.83	682.13	847.76	1,009.61	1,161.37	17.9%
	Shanxi	39.99	43.16	51.98	64.58	85.38	109.25	130.80	148.01	148.61	150.678	164.381	202.95	232.48	285.52	357.14	417.85	474.65	16.7%
	Inner Mongolia	28.67	32.10	37.86	48.66	68.19	83.29	98.48	109.45	119.23	126.82	140.10	171.38	194.09	238.84	304.11	389.56	479.00	19.2%
Northeast	Liaoning	96.57	107.32	129.77	180.82	246.18	279.34	315.77	349.01	388.17	417.17	466.91	503.31	545.82	600.25	667.20	800.90	925.71	15.2%
	Jilin	39.40	42.40	51.46	67.20	93.68	112.92	133.72	144.69	155.78	166.09	182.12	212.04	234.85	266.21	312.20	362.03	424.92	16.0%
	Heilongjiang	65.90	73.47	85.59	107.69	161.86	201.45	240.26	270.25	283.28	289.74	325.30	339.01	363.72	405.74	475.06	551.15	621.68	15.1%
East	Shanghai	74.47	85.77	111.43	151.16	197.19	246.26	290.22	336.02	368.82	403.50	455.12	521.01	574.10	669.42	807.28	915.42	1,029.70	17.8%
	Jiangsu	131.58	147.11	197.16	275.45	405.74	515.53	600.42	668.03	720.00	769.78	858.27	945.68	1,060.69	1,244.29	1,500.36	1,830.57	2,154.84	19.1%
	Zhejiang	83.69	98.35	122.07	169.80	266.69	352.48	414.61	463.82	498.75	536.49	603.63	689.83	800.37	970.50	1,164.87	1,343.79	1,564.89	20.1%
	Anhui	60.65	60.01	73.02	97.96	148.85	200.36	233.93	267.00	280.55	290.86	303.82	324.67	351.97	392.31	475.93	537.51	614.19	15.6%
	Fujian	45.95	54.74	69.47	102.81	166.53	216.05	258.38	300.04	333.02	355.02	392.01	407.29	446.76	498.37	576.34	656.89	750.16	19.1%
	Jiangxi	41.35	46.51	55.95	70.19	94.82	120.51	151.73	171.52	185.20	185.37	200.31	217.57	245.05	280.74	345.67	405.68	461.88	16.2%
	Shandong	133.34	159.69	198.20	270.25	387.22	500.23	596.04	665.00	716.22	766.21	854.24	919.50	1,027.55	1,207.81	1,502.18	1,851.69	2,184.67	19.1%
South-Central	Henan	89.57	99.31	121.32	158.31	222.44	300.27	366.12	407.93	435.66	457.61	513.77	553.30	603.55	686.77	855.38	1,058.74	1,246.41	17.9%
	Hubei	79.11	85.69	100.14	129.84	187.87	239.14	297.02	345.02	370.42	385.80	427.63	388.05	421.28	475.75	563.32	652.01	749.72	15.1%
	Hunan	70.26	78.58	92.01	119.24	169.44	219.57	264.72	299.30	321.14	332.68	369.19	383.19	415.15	466.00	564.19	651.13	749.32	15.9%
	Guangdong	147.18	178.06	229.35	322.53	424.06	538.17	651.91	731.55	791.91	846.43	966.22	1,203.93	1,350.24	1,584.46	1,886.46	2,236.65	2,596.86	19.6%
	Guangxi	39.28	45.30	57.23	78.81	124.18	149.76	169.79	181.73	190.30	195.33	205.01	227.93	252.37	282.11	343.35	407.57	480.20	16.9%
	Hainan	9.50	10.79	14.17	22.51	33.10	36.42	38.95	40.99	43.89	47.12	51.85	55.84	62.20	69.32	79.89	89.46	105.24	16.2%
Southwest	Chongqing																		
	Sichuan	114.49	128.11	148.12	195.87	277.79	353.40	498.52	632.01	758.03	871.16	1003.33	1171.66	1350.33	1553.51	1785.51	2038.51	2348.78	11.5%
	Guizhou	25.49	28.98	33.17	40.85	52.12	63.01	71.37	78.30	84.19	91.19	99.35	113.33	124.34	142.63	167.78	197.91	226.74	14.6%
	Yunnan	39.60	43.29	51.00	66.22	97.40	120.67	148.16	164.42	179.39	185.57	195.51	213.83	231.28	255.60	308.19	347.29	400.19	15.6%
	Xizang (Tibet)	2.45	3.05	3.33	3.73	4.58	5.60	6.48	7.70	9.12	10.56	11.75	14.60	16.66	18.91	22.03	25.12	29.01	16.7%
Northwest	Shaanxi	37.41	42.79	49.26	61.45	81.66	100.00	117.54	132.60	138.15	148.76	166.09	201.06	225.34	258.77	317.56	367.57	438.39	16.6%
	Gansu	23.40	25.55	30.16	35.83	45.17	55.34	71.42	78.13	86.98	93.20	98.34	112.54	123.20	139.98	168.85	193.40	227.50	15.3%
	Qinghai	6.63	7.26	8.43	10.57	13.82	16.53	18.36	20.21	22.02	23.84	26.36	30.01	34.07	39.02	46.61	54.33	64.11	15.2%
	Ningxia	6.11	6.85	7.86	9.84	13.40	16.98	19.36	21.09	22.75	24.15	26.56	33.74	37.72	44.54	53.72	60.61	70.70	16.5%
	Xinjiang	25.19	31.17	38.23	48.19	67.37	82.51	91.22	105.01	111.67	116.86	136.44	149.16	161.27	188.64	220.91	260.42	301.90	16.8%
National Total		1,866.8	2,178.1	2,692.3	3,533.4	4,819.8	6,079.4	7,117.7	7,897.3	8,440.2	8,967.7	9,921.5	10,965.5	12,033.3	13,582.3	15,987.8	18,386.8	20,940.7	16.3%
Balance ⁽¹⁾		144.17	222.63	297.07	326.41	281.42	327.90	286.37	222.04	173.71	212.39	200.52	110.19	-24.29	-343.13	-770.88	-1,392.11	-2,011.45	

Planning Region	Province	Per Capita GDP (current yuan)																		Average Annual Growth
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006		
North	Beijing	4,611	5,474	6,435	7,765	9,636	11,150	12,833	14,598	16,142	17,299	17,936	26,830	30,431	34,494	40,591	44,833	48,832	15.9%	
	Tianjin	3,518	3,771	4,470	5,777	7,756	9,768	11,629	13,016	13,964	15,121	16,377	19,114	21,358	25,492	30,381	35,468	40,351	16.5%	
	Hebei	1,358	1,543	1,841	2,473	3,424	4,427	5,325	6,059	6,479	6,908	7,546	8,235	8,936	10,224	12,451	14,752	16,836	17.0%	
	Shanxi	1,379	1,467	1,745	2,144	2,804	3,550	4,207	4,712	4,685	4,703	4,986	6,203	7,058	8,615	10,709	12,469	14,064	15.6%	
	Inner Mongolia	1,325	1,470	1,715	2,180	3,017	3,647	4,269	4,706	5,084	5,369	5,897	7,210	8,159	10,037	12,756	16,326	19,983	18.5%	
Northeast	Liaoning	2,434	2,690	3,231	4,474	6,053	6,826	7,672	8,434	9,338	10,002	11,017	12,001	12,986	14,258	15,822	18,979	21,674	14.6%	
	Jilin	1,587	1,690	2,032	2,630	3,639	4,356	5,123	5,506	5,892	6,249	6,676	7,879	8,702	9,846	11,525	13,334	15,005	15.4%	
	Heilongjiang	1,860	2,055	2,372	2,959	4,408	5,443	6,445	7,205	7,508	7,641	8,818	8,896	9,539	10,635	12,446	14,436	16,262	14.5%	
East	Shanghai	5,570	6,401	8,285	11,205	14,542	17,403	20,452	23,063	25,193	27,374	27,187	32,281	35,329	39,125	46,342	51,486	56,733	15.6%	
	Jiangsu	1,944	2,149	2,853	3,954	5,779	7,296	8,445	9,346	10,025	10,672	11,539	12,858	14,370	16,801	20,185	24,512	28,541	18.3%	
	Zhejiang	2,008	2,341	2,882	3,980	6,211	8,161	9,547	10,458	11,193	11,989	12,906	14,954	17,223	20,739	24,679	27,458	31,423	18.8%	
	Anhui	1,069	1,042	1,252	1,661	2,500	3,332	3,854	4,358	4,537	4,663	5,076	5,131	5,553	6,120	7,366	8,791	10,052	15.0%	
	Fujian	1,513	1,778	2,229	3,264	5,295	6,674	7,923	9,142	10,095	10,706	11,294	11,840	12,890	14,288	16,415	18,598	21,084	17.9%	
	Jiangxi	1,101	1,203	1,430	1,770	2,362	2,966	3,696	4,133	4,419	4,381	4,838	5,198	5,804	6,599	8,069	9,420	10,645	15.2%	
	Shandong	1,570	1,863	2,302	3,127	4,466	5,747	6,821	7,570	8,104	8,626	9,409	10,170	11,314	13,236	16,364	20,042	23,468	18.4%	
South-Central	Henan	1,036	1,133	1,369	1,769	2,464	3,300	3,992	4,413	4,677	4,875	5,551	5,791	6,278	7,104	8,803	11,298	13,271	17.3%	
	Hubei	1,454	1,555	1,795	2,297	3,285	4,143	5,099	5,875	6,271	6,497	7,094	6,495	7,035	7,927	9,364	11,425	13,169	14.8%	
	Hunan	1,147	1,266	1,468	1,889	2,666	3,435	4,118	4,630	4,939	5,093	5,733	5,809	6,263	6,994	8,423	10,303	11,815	15.7%	
	Guangdong	2,319	2,765	3,515	4,882	6,340	7,836	9,365	10,375	11,087	11,643	11,181	15,469	17,181	19,920	22,718	24,351	27,911	16.8%	
	Guangxi	922	1,048	1,307	1,776	2,764	3,296	3,700	3,922	4,071	4,144	4,567	4,761	5,234	5,808	7,023	8,756	10,176	16.7%	
	Hainan	1,433	1,601	2,066	3,211	4,655	5,030	5,307	5,516	6,029	6,184	6,588	7,015	7,746	8,553	9,767	10,826	12,589	14.2%	
Southwest	Chongqing																			
	Sichuan	1,060	1,176	1,347	1,764	2,477	3,121	2,612	4,938	4,671	4,812	5,143	5,701	6,405	7,261	8,625	10,978	12,415	12.1%	
	Guizhou	780	874	987	1,198	1,507	1,796	2,008	2,199	2,301	2,458	2,819	2,983	3,241	3,686	4,298	5,313	6,035	13.6%	
	Yunnan	1,061	1,145	1,331	1,705	2,473	3,024	3,690	4,016	4,329	4,427	4,559	4,988	5,338	5,842	6,981	7,818	8,927	14.2%	
	Xizang (Tibet)	1,101	1,351	1,461	1,608	1,942	2,333	2,654	3,104	3,618	4,125	4,483	5,553	6,238	6,999	8,042	9,102	10,324	15.0%	
Northwest	Shaanxi	1,128	1,272	1,447	1,785	2,346	2,847	3,317	3,714	3,842	4,112	4,607	5,495	6,133	7,014	8,571	9,886	11,737	15.8%	
	Gansu	1,038	1,118	1,303	1,528	1,899	2,270	2,895	3,133	3,453	3,665	3,838	4,370	4,751	5,377	6,447	7,462	8,730	14.2%	
	Qinghai	1,461	1,599	1,829	2,263	2,916	3,437	3,762	4,074	4,377	4,674	5,089	5,739	6,440	7,310	8,647	10,015	11,699	13.9%	
	Ningxia	1,301	1,427	1,588	1,814	2,258	3,309	3,980	4,476	4,725	4,747	4,994	4,994	5,594	6,454	7,675	9,135	10,186	11,705	14.7%
	Xinjiang	1,647	2,005	2,418	3,002	4,128	4,968	5,401	7,105	6,392	6,587	7,088	7,951	8,465	9,754	11,254	12,968	14,727	14.7%	
	National Total	1,633	1,881	2,298	2,981	4,022	5,019	5,816	6,388	6,762	7,122	7,838	8,592	9,368	10,510	12,299	14,062	15,931	15.3%	

Table 10B.3. Gross Domestic Product by Province (continued)

2. Gross Domestic Product (2000 yuan)

		GDP (billion 2000 yuan)																	Average Annual
Planning Region	Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Growth
North	Beijing	99.11	111.05	121.86	129.54	135.63	154.20	168.39	184.56	202.64	223.31	247.88	276.89	308.79	342.71	391.03	437.29	489.76	10.5%
	Tianjin	58.12	60.01	66.72	75.94	85.67	96.04	109.78	123.06	134.51	147.96	163.94	183.65	206.91	237.60	275.23	315.70	361.16	12.1%
	Hebei	158.30	170.22	189.90	224.84	261.84	301.37	342.05	384.81	425.98	464.75	508.90	553.16	606.54	676.90	764.22	866.84	981.27	12.1%
	Shanxi	71.12	71.90	80.27	87.05	95.99	108.52	120.46	133.11	145.09	152.49	164.38	180.98	204.33	234.78	270.46	304.54	340.47	10.3%
	Inner Mongolia	53.88	56.52	61.78	69.32	81.02	87.43	98.54	108.09	118.47	127.71	140.10	154.95	175.37	206.23	249.33	308.75	364.33	12.7%
Northeast	Liaoning	191.48	199.38	223.42	271.76	308.58	309.38	335.98	365.89	396.25	428.75	466.91	508.85	561.00	625.52	705.58	792.49	901.85	10.2%
	Jilin	71.21	71.80	80.76	92.06	107.04	114.00	129.62	141.54	154.28	166.78	182.12	199.06	217.97	240.20	269.50	302.11	347.43	10.4%
	Heilongjiang	124.42	129.96	140.32	154.12	193.20	212.45	234.76	258.24	279.67	300.65	325.30	355.55	391.95	431.91	482.37	538.36	602.97	10.4%
East	Shanghai	143.92	155.30	186.99	221.43	240.92	265.83	300.39	338.54	372.73	410.75	455.12	502.91	559.95	628.59	718.13	797.85	893.59	12.1%
	Jiangsu	230.89	241.85	300.41	366.38	450.10	505.30	566.95	634.98	704.83	776.02	858.27	945.40	1,055.67	1,199.49	1,376.42	1,575.73	1,810.51	13.7%
	Zhejiang	152.44	167.85	193.06	234.43	307.09	358.62	404.16	449.03	494.38	543.81	603.63	667.90	752.31	862.90	987.82	1,114.11	1,265.63	14.1%
	Anhui	100.54	93.21	105.10	123.09	155.99	185.52	212.23	239.19	259.52	280.54	303.82	330.83	362.61	396.55	449.29	501.41	566.09	11.4%
	Fujian	84.18	93.97	110.52	142.78	195.20	221.10	255.15	292.15	325.45	358.00	392.01	425.95	469.23	523.19	585.09	653.19	740.71	14.6%
	Jiangxi	78.37	81.41	90.76	99.40	111.98	125.76	142.61	159.01	172.05	185.47	200.31	217.89	240.86	272.08	307.99	347.51	390.26	10.6%
	Shandong	242.38	271.97	312.84	372.37	444.98	507.92	569.89	633.71	702.15	773.07	854.24	940.03	1,050.29	1,191.15	1,374.04	1,583.51	1,816.29	13.4%
South-Central	Henan	169.89	176.48	199.81	227.60	266.73	318.13	362.35	400.03	434.83	469.62	513.77	560.03	613.07	678.37	771.36	881.06	1,005.29	11.8%
	Hubei	151.64	153.88	166.67	188.65	227.65	256.05	289.85	327.53	361.26	391.25	427.63	465.53	508.45	557.83	620.34	695.40	779.54	10.8%
	Hunan	131.62	137.93	149.67	169.33	200.68	229.77	258.72	286.66	312.75	338.70	369.19	402.52	438.70	480.82	538.99	601.51	674.29	10.8%
	Guangdong	288.99	327.56	391.03	480.04	526.38	590.25	653.41	722.67	796.39	872.04	966.22	1,067.57	1,199.66	1,377.75	1,581.50	1,799.76	2,053.53	13.0%
	Guangxi	64.04	69.20	81.02	97.39	127.99	136.38	150.42	162.61	177.41	191.07	205.01	222.02	245.45	270.41	302.39	342.25	388.45	11.9%
	Hainan	16.92	18.01	21.92	30.39	37.27	36.23	37.97	40.52	43.88	47.65	51.85	56.56	61.97	68.54	75.87	83.64	94.09	11.3%
Southwest	Chongqing							113.14	125.59	136.14	146.48	158.93	173.24	190.99	212.86	238.73	266.18	298.65	10.2%
	Sichuan	152.51	159.89	171.33	197.78	233.94	262.96	289.52	319.34	348.40	367.91	401.03	437.02	481.82	536.49	604.81	681.08	771.66	10.7%
	Guizhou	47.46	50.55	53.63	57.65	61.35	65.53	71.36	77.78	84.40	91.40	99.35	108.05	117.83	129.71	144.50	161.26	179.81	8.7%
	Yunnan	76.70	78.55	85.77	97.22	119.26	130.55	144.13	157.67	170.29	182.55	195.51	208.84	227.61	247.69	275.76	300.57	336.34	9.7%
	Xizang (Tibet)	5.52	6.45	6.52	6.38	6.54	7.06	7.99	8.89	9.80	10.74	11.75	13.24	14.94	16.73	18.74	21.01	23.83	9.6%
Northwest	Shaanxi	71.70	76.84	81.99	89.28	98.95	107.07	117.99	128.85	140.57	152.38	166.09	182.37	202.54	226.43	255.55	287.75	324.30	9.9%
	Gansu	47.88	48.96	53.57	55.56	58.41	63.23	70.50	76.49	83.53	90.47	98.34	107.94	118.59	131.32	146.44	163.79	182.46	8.7%
	Qinghai	12.44	12.76	13.73	15.03	16.39	17.32	18.81	20.50	22.35	24.18	26.36	29.45	33.00	36.92	41.46	46.50	52.18	9.4%
	Ningxia	10.40	10.92	11.62	12.69	14.42	16.14	18.06	20.51	22.25	24.19	26.56	29.24	32.22	36.31	40.38	44.80	50.40	10.4%
	Xinjiang	50.77	56.87	66.92	73.63	85.85	92.91	98.85	109.73	117.74	126.10	136.44	148.10	160.17	178.18	198.45	220.08	244.29	10.3%
	National Total	3,684.7	4,020.0	4,586.9	5,215.3	5,898.5	6,447.0	7,104.6	7,751.2	8,363.5	8,999.1	9,800.0	10,593.8	11,600.3	12,829.9	14,164.2	15,750.6	17,435.9	10.2%
Balance ^[1]		525.91	656.79	766.97	752.15	641.46	564.02	409.60	319.89	213.52	132.35	79.11	-61.86	-210.54	-426.26	-897.58	-1,265.44	-1,895.52	
		Per Capita GDP (2000 yuan)																	Average Annual
Planning Region	Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Growth
North	Beijing	9,126	10,151	11,058	11,649	12,056	12,326	13,375	14,884	16,263	17,765	17,936	20,021	21,700	23,532	26,191	28,469	30,978	7.9%
	Tianjin	6,574	6,602	7,253	8,183	9,162	10,196	11,580	12,913	14,055	15,428	16,377	18,292	20,547	23,494	26,878	30,282	33,596	10.7%
	Hebei	2,570	2,737	3,026	3,550	4,099	4,682	5,275	5,897	6,485	7,027	7,546	8,257	9,006	9,999	11,224	12,666	14,225	11.3%
	Shanxi	2,453	2,444	2,694	2,890	3,152	3,527	3,875	4,238	4,574	4,759	4,986	5,531	6,203	7,084	8,110	9,086	10,088	9.2%
	Inner Mongolia	2,491	2,588	2,799	3,106	3,585	3,828	4,271	4,647	5,052	5,407	5,897	6,519	7,371	8,667	10,459	12,940	15,199	12.0%
Northeast	Liaoning	4,827	4,997	5,563	6,723	7,587	7,561	8,163	8,842	9,532	10,279	11,017	12,133	13,348	14,858	16,732	18,779	21,116	9.7%
	Jilin	2,868	2,862	3,190	3,603	4,158	4,398	4,966	5,386	5,835	6,274	6,676	7,397	8,076	8,884	9,948	11,128	12,759	9.8%
	Heilongjiang	3,512	3,635	3,889	4,234	5,261	5,740	6,297	6,885	7,412	7,928	8,818	9,330	10,279	11,321	12,637	14,101	15,772	9.8%
East	Shanghai	10,764	11,590	13,903	16,415	17,767	18,787	21,169	23,236	25,460	27,867	27,187	31,159	34,458	36,738	41,225	44,873	49,234	10.0%
	Jiangsu	3,412	3,534	4,347	5,259	6,411	7,151	7,974	8,883	9,814	10,759	11,539	12,854	14,303	16,197	18,518	21,100	23,980	13.0%
	Zhejiang	3,657	3,994	4,558	5,495	7,152	8,303	9,306	10,125	11,095	12,152	12,906	14,479	16,189	18,440	20,928	22,765	25,414	12.9%
	Anhui	1,772	1,618	1,802	2,087	2,619	3,085	3,496	3,904	4,197	4,498	5,076	5,228	5,721	6,186	6,954	8,201	9,265	10.9%
	Fujian	2,772	3,052	3,547	4,533	6,133	6,830	7,824	8,902	9,865	10,796	11,294	12,382	13,538	15,000	16,665	18,493	20,818	13.4%
	Jiangxi	2,057	2,106	2,320	2,506	2,789	3,095	3,474	3,832	4,105	4,384	4,838	5,205	5,705	6,395	7,189	8,069	8,994	9.7%
	Shandong	2,854	3,173	3,633	4,309	5,132	5,835	6,522	7,214	7,945	8,703	9,409	10,397	11,565	13,054	14,968	17,139	19,511	12.8%
South-Central	Henan	1,964	2,014	2,255	2,543	2,955	3,496	3,951	4,328	4,668	5,003	5,551	5,861	6,377	7,017	7,938	9,402	10,704	11.2%
	Hubei	2,788	2,792	2,987	3,337	3,981	4,436	4,976	5,577	6,116	6,589	7,094	7,791	8,491	9,295	10,311	12,185	13,693	10.5%
	Hunan	2,148	2,221	2,388	2,683	3,158	3,595	4,025	4,434	4,810	5,165	5,733	6,102	6,618	7,216	8,047	9,518	10,632	10.5%
	Guangdong	4,554	5,087	5,993	7,266	7,869	8,594	9,387	10,249	11,149	11,995	11,161	13,717	15,265	17,321	19,045	19,595	22,071	10.4%
	Guangxi	1,503	1,600	1,850	2,195	2,849	3,002	3,278	3,510	3,795	4,054	4,567	4,637	5,090	5,567	6,185	7,352	8,232	11.2%
Hainan	2,552	2,672	3,195	4,336	5,242	5,005	5,173	5,453	5,827	6,254	6,588	7,105							

Table 10B.3. Gross Domestic Product by Province (continued)

3. GDP (index previous=100)

Planning Region	Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
North	Beijing	107.5	107.5	111.6	112.1	113.5	112.4	109.2	109.6	109.8	110.2	111.0	111.7	111.5	111.0	114.1	111.8	112.0
	Tianjin	104.4	106.0	111.7	112.1	114.3	114.9	114.3	112.1	109.3	110.0	110.8	112.0	112.7	114.8	115.8	114.7	114.4
	Hebei	109.0	109.0	115.6	117.7	114.9	113.9	113.5	112.5	110.7	109.1	109.5	108.7	109.6	111.6	112.9	113.4	113.2
	Shanxi	103.3	103.3	113.8	112.2	109.4	111.1	111.0	110.5	109.0	105.1	107.8	110.1	112.9	114.9	115.2	112.6	111.8
	Inner Mongolia	107.5	107.5	111.0	110.6	110.1	109.1	112.7	109.7	109.6	107.8	109.7	110.6	113.2	117.6	120.9	123.8	118.0
Northeast	Liaoning	105.5	105.5	112.1	114.9	111.2	107.1	108.6	108.9	108.3	108.2	108.9	109.0	110.2	111.5	112.8	112.3	113.8
	Jilin	104.9	104.8	112.2	112.8	114.3	109.7	113.7	109.2	109.0	108.1	109.2	109.3	109.5	110.2	112.2	112.1	115.0
	Heilongjiang	103.9	103.9	106.8	107.6	108.8	109.6	110.5	110.0	108.3	107.5	108.2	109.3	110.2	110.2	111.7	111.6	112.0
East	Shanghai	107.0	107.0	114.9	114.9	114.3	114.1	113.0	112.7	110.1	110.2	110.8	110.5	111.3	112.3	114.2	111.1	112.0
	Jiangsu	107.9	106.5	126.0	120.7	116.5	115.4	112.2	112.0	111.0	111.0	110.6	110.2	111.7	113.6	114.8	114.5	114.9
	Zhejiang	115.8	115.4	119.0	122.0	120.0	116.7	112.7	111.1	110.1	110.0	111.0	110.6	112.6	114.7	114.5	112.8	113.6
	Anhui	96.3	96.3	116.8	121.0	120.7	114.3	114.4	112.7	108.5	108.1	108.3	108.9	109.6	109.4	113.3	111.6	112.9
	Fujian	115.4	114.7	120.3	125.2	121.7	115.2	115.4	114.5	111.4	110.0	109.5	108.7	110.2	111.5	111.8	111.6	113.4
	Jiangxi	107.9	108.2	114.8	113.7	117.0	114.5	113.4	111.5	108.2	107.8	108.0	108.8	110.5	113.0	113.2	112.8	112.3
	Shandong	112.3	113.9	116.9	118.5	116.3	114.2	112.2	111.2	110.8	110.1	110.5	110.0	111.7	113.4	115.4	115.2	114.7
South-Central	Henan	107.0	107.0	113.7	115.8	113.8	114.8	113.9	110.4	108.7	108.0	109.4	109.0	109.5	110.7	113.7	114.2	114.1
	Hubei	104.5	104.5	114.1	114.3	115.2	114.6	113.2	113.0	110.3	108.3	109.3	108.9	109.2	109.7	111.2	112.1	112.1
	Hunan	107.8	107.8	112.4	113.1	111.0	110.9	112.6	110.8	109.1	108.3	109.0	109.0	109.0	109.6	112.1	111.6	112.1
	Guangdong	117.3	117.3	122.0	122.3	119.1	114.9	110.7	110.6	110.2	109.5	110.8	110.5	112.4	114.8	114.8	113.8	114.1
	Guangxi	112.7	112.7	118.3	121.2	116.0	115.3	110.3	108.1	109.1	107.7	107.3	108.3	110.6	110.2	111.8	113.2	113.5
	Hainan	112.4	112.4	140.2	120.9	111.9	104.3	104.8	106.7	108.3	108.6	109.1	109.6	110.6	110.7	110.2	110.2	112.5
	Chongqing							111.2	111.0	108.4	107.6	108.5	109.0	110.2	111.5	112.2	111.5	112.2
Southwest	Sichuan	107.7	107.7	112.6	113.9	111.1	110	110.1	110.3	109.1	105.6	109.0	109.0	110.3	111.3	112.7	112.6	113.3
	Guizhou	109.9	109.9	108.1	109.9	108.5	107.5	108.9	109.0	108.5	108.3	108.7	108.8	109.1	110.1	111.4	111.6	111.5
	Yunnan	106.6	106.6	110.9	110.6	111.6	111.2	110.4	109.4	108.0	107.2	107.1	106.8	109.0	108.8	111.3	109.0	111.9
	Xizang (Tibet)	101.6	101.6	107.1	108.2	115.6	117.9	113.2	111.3	110.2	109.6	109.4	112.7	112.9	112.0	112.1	112.1	113.4
Northwest	Shaanxi	110.9	110.9	108.2	113.3	108.5	109	110.2	109.2	109.1	108.4	109.0	109.8	111.1	111.8	112.9	112.6	112.7
	Gansu	106.5	106.5	109.9	111.6	110.4	109.9	111.5	108.5	109.2	108.3	108.7	109.8	109.9	110.7	111.5	111.8	111.4
	Qinghai	104.7	104.7	107.4	109.6	108.2	108	108.6	109.0	109.0	108.2	109.0	111.7	112.1	111.9	112.3	112.2	112.2
	Ningxia	104.2	105.1	108.6	110.1	108.2	109	111.1	107.6	108.5	108.7	109.8	111.0	110.2	112.7	111.2	110.9	112.5
	Xinjiang	114.0	113.9	113.1	110.3	110.9	110.3	106.4	111.0	107.3	107.1	108.2	108.6	108.2	111.2	111.4	110.9	111.0
GDP (index 2000=100)																		
Planning Region	Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
North	Beijing	40.0	44.8	49.2	52.3	54.7	62.2	67.9	74.5	81.8	90.1	100.0	111.7	124.6	136.3	157.8	176.4	197.6
	Tianjin	35.5	36.6	40.7	46.3	52.3	58.6	67.0	75.1	82.0	90.3	100.0	112.0	125.2	144.9	167.9	192.6	220.3
	Hebei	31.1	33.4	37.3	44.2	51.5	59.2	67.2	75.6	83.7	91.3	100.0	108.7	119.2	133.0	150.2	170.3	192.8
	Shanxi	43.3	43.7	48.8	53.0	58.4	66.0	73.3	81.0	88.3	92.8	100.0	110.1	124.3	142.8	164.5	185.3	207.1
	Inner Mongolia	38.5	40.3	44.1	49.5	57.8	62.4	70.3	77.2	84.6	91.2	100.0	110.6	125.2	147.2	178.0	220.4	260.0
Northeast	Liaoning	41.0	42.7	47.9	58.2	66.1	66.3	72.0	78.4	84.9	91.8	100.0	109.0	120.2	134.0	151.1	169.7	193.2
	Jilin	39.1	39.4	44.3	50.6	58.8	62.6	71.2	77.7	84.7	91.6	100.0	109.3	119.7	131.9	148.0	165.9	190.8
	Heilongjiang	38.2	40.0	43.1	47.4	59.4	65.3	72.2	79.4	86.0	92.4	100.0	109.3	120.5	132.8	148.3	165.5	185.4
East	Shanghai	31.6	34.1	41.1	48.7	52.9	58.4	66.0	74.4	81.9	90.3	100.0	110.5	123.0	138.1	157.8	175.3	196.3
	Jiangsu	26.9	28.2	35.0	42.7	52.4	58.9	66.1	74.0	82.1	90.4	100.0	110.2	123.0	139.8	160.4	183.6	210.9
	Zhejiang	25.3	27.8	32.0	38.8	50.9	59.4	67.0	74.4	81.9	90.1	100.0	110.6	124.6	143.0	163.6	184.6	209.7
	Anhui	33.1	30.7	34.6	40.5	51.3	61.1	69.9	78.7	85.4	92.3	100.0	108.9	119.3	130.5	147.9	165.0	186.3
	Fujian	21.5	24.0	28.2	36.4	49.8	56.4	65.1	74.5	83.0	91.3	100.0	108.7	119.7	133.5	149.3	166.6	189.0
	Jiangxi	39.1	40.6	45.3	49.6	55.9	62.8	71.2	79.4	85.9	92.6	100.0	108.8	120.2	135.8	153.8	173.5	194.8
	Shandong	28.4	31.8	36.6	43.6	52.1	59.5	66.7	74.2	82.2	90.5	100.0	110.0	122.9	139.4	160.8	185.4	212.6
South-Central	Henan	33.1	34.3	38.9	44.3	51.9	61.9	70.5	77.9	84.6	91.4	100.0	109.0	119.3	132.0	150.1	171.5	195.7
	Hubei	35.5	36.0	39.0	44.1	53.2	59.9	67.8	76.6	84.5	91.5	100.0	108.9	118.9	130.4	145.1	162.6	182.3
	Hunan	35.7	37.4	40.5	45.9	54.4	62.2	70.1	77.6	84.7	91.7	100.0	109.0	118.8	130.2	146.0	162.9	182.6
	Guangdong	29.9	33.9	40.5	49.7	54.5	61.1	67.6	74.8	82.4	90.3	100.0	110.5	124.2	142.6	163.7	186.3	212.5
	Guangxi	31.2	33.8	39.5	47.5	62.4	66.5	73.4	79.3	86.5	93.2	100.0	108.3	119.7	131.9	147.5	166.9	189.5
	Hainan	32.6	34.7	42.3	58.6	71.9	69.9	73.2	78.1	84.6	91.9	100.0	109.1	119.5	132.2	146.3	161.3	181.5
Southwest	Chongqing	0.0	0.0	0.0	0.0	0.0	64.0	71.2	79.0	85.7	92.2	100.0	109.0	120.2	133.9	150.2	167.5	187.9
	Sichuan	38.0	39.9	42.7	49.3	58.3	65.6	72.2	79.6	86.9	91.7	100.0	109.0	120.1	133.8	150.8	169.8	192.4
	Guizhou	47.8	50.9	54.0	58.0	61.7	66.0	71.8	78.3	84.9	92.0	100.0	108.8	118.6	130.6	145.4	162.3	181.0
	Yunnan	39.2	40.2	43.9	49.7	61.0	66.8	73.7	80.6	87.1	93.4	100.0	106.8	116.4	126.7	141.0	153.7	172.0
	Xizang (Tibet)	47.0	54.9	55.5	54.3	55.7	60.1	68.0	75.7	83.4	91.4	100.0	112.7	127.2	142.4	159.6	178.9	202.9
Northwest	Shaanxi	43.2	46.3	49.4	53.8	59.6	64.5	71.0	77.6	84.6	91.7	100.0	109.8	121.9	136.3	153.9	173.2	195.3
	Gansu	48.7	49.8	54.5	56.5	59.4	64.3	71.7	77.8	84.9	92.0	100.0	109.8	120.6	133.5	148.9	166.6	185.5
	Qinghai	47.2	48.4	52.1	57.0	62.2	65.7	71.4	77.8	84.8	91.7	100.0	111.7	125.2	140.1	157.3	176.4	198.0
	Ningxia	39.2	41.1	43.7	47.8	54.3	60.8	71.8	77.2	83.8	91.1	100.0	110.1	121.3	136.7	152.0	168.7	189.8
	Xinjiang	37.2	43.1	49.0	54.0	62.9	68.1	72.5	80.4	86.3	92.4	100.0	108.6	117.4	130.6	145.5	161.3	179.1

Source: NBS, China Statistical Yearbook, various years; China Statistical Abstract, 2007.

Table 10B.3. Gross Domestic Product by Province (continued)

4. Population (millions)

Planning Region	Province	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Average Annual Growth
North	Beijing	10.86	10.94	11.02	11.12	11.25	12.51	12.59	12.4	12.46	12.57	13.82	13.83	14.23	14.56	14.93	15.36	15.81	2.4%
	Tianjin	8.84	9.09	9.2	9.28	9.35	9.42	9.48	9.53	9.57	9.59	10.01	10.04	10.07	10.11	10.24	10.43	10.75	1.2%
	Hebei	61.59	62.2	62.75	63.34	63.88	64.37	64.84	65.25	65.69	66.14	67.44	66.99	67.35	67.69	68.09	68.44	68.98	0.7%
	Shanxi	28.99	29.42	29.79	30.12	30.45	30.77	31.09	31.41	31.72	32.04	32.97	32.72	32.94	33.14	33.35	33.52	33.75	1.0%
	Inner Mongolia	21.63	21.84	22.07	22.32	22.6	22.84	23.07	23.26	23.45	23.62	23.76	23.77	23.79	23.80	23.84	23.86	23.97	0.6%
Northeast	Liaoning	39.67	39.9	40.16	40.42	40.67	40.92	41.16	41.38	41.57	41.71	42.38	41.94	42.03	42.10	42.17	42.20	42.71	0.5%
	Jilin	24.83	25.09	25.32	25.55	25.74	25.92	26.1	26.28	26.44	26.58	27.28	26.91	26.99	27.04	27.09	27.15	27.23	0.6%
	Heilongjiang	35.43	35.75	36.08	36.4	36.72	37.01	37.28	37.51	37.73	37.92	36.89	38.11	38.13	38.15	38.17	38.18	38.23	0.5%
East	Shanghai	13.37	13.4	13.45	13.49	13.56	14.15	14.19	14.57	14.64	14.74	16.74	16.14	16.25	17.11	17.42	17.78	18.15	1.9%
	Jiangsu	67.67	68.44	69.11	69.67	70.21	70.66	71.1	71.48	71.82	72.13	74.38	73.55	73.81	74.06	74.33	74.68	75.50	0.7%
	Zhejiang	41.68	42.02	42.36	42.66	42.94	43.19	43.43	44.35	44.56	44.75	46.77	46.13	46.47	46.80	47.20	48.94	49.80	1.1%
	Anhui	56.75	57.61	58.34	58.97	59.55	60.13	60.7	61.27	61.84	62.37	59.86	63.28	63.38	64.10	64.61	61.14	61.10	0.5%
	Fujian	30.37	30.79	31.16	31.5	31.83	32.37	32.61	32.82	32.99	33.16	34.71	34.4	34.66	34.88	35.11	35.32	35.58	1.0%
	Jiangxi	38.1	38.65	39.13	39.66	40.15	40.63	41.05	41.5	41.91	42.31	41.4	41.86	42.22	42.54	42.84	43.07	43.39	0.8%
	Shandong	84.93	85.7	86.1	86.42	86.71	87.05	87.38	87.65	88.38	88.83	90.79	90.41	90.82	91.25	91.80	92.39	93.09	0.6%
South-Central	Henan	86.49	87.63	88.61	89.49	90.27	91	91.72	92.43	93.15	93.87	92.56	95.55	96.13	96.67	97.17	93.71	93.92	0.5%
	Hubei	54.39	55.12	55.8	56.53	57.19	57.72	58.25	58.73	59.07	59.38	60.28	59.75	59.88	60.02	60.16	57.07	56.93	0.3%
	Hunan	61.28	62.09	62.67	63.11	63.55	63.92	64.28	64.65	65.02	65.32	64.4	65.96	66.29	66.63	66.98	63.20	63.42	0.2%
	Guangdong	63.46	64.39	65.25	66.07	66.89	68.68	69.61	70.51	71.43	72.7	86.42	77.83	78.59	79.54	83.04	91.85	93.04	2.4%
	Guangxi	42.61	43.24	43.8	44.38	44.93	45.43	45.89	46.33	46.75	47.13	44.89	47.88	48.22	48.57	48.89	46.55	47.19	0.6%
	Hainan	6.63	6.74	6.86	7.01	7.11	7.24	7.34	7.43	7.53	7.62	7.87	7.96	8.03	8.11	8.18	8.26	8.36	1.5%
Southwest	Chongqing								30.42	30.6	30.75	30.9	30.97	31.07	31.30	31.22	27.97	28.08	-0.9%
	Sichuan	108.04	108.97	109.98	111.04	112.14	113.25	114.3	84.3	84.93	85.5	83.29	86.4	86.73	87.00	87.25	82.08	81.69	-1.7%
	Guizhou	32.68	33.15	33.61	34.09	34.58	35.08	35.55	36.06	36.58	37.1	35.25	37.99	38.37	38.70	39.04	37.25	37.57	0.9%
	Yunnan	37.31	37.82	38.32	38.85	39.39	39.9	40.42	40.94	41.44	41.92	42.88	42.87	43.33	43.76	44.15	44.42	44.83	1.2%
	Xizang (Tibet)	2.22	2.26	2.28	2.32	2.36	2.4	2.44	2.48	2.52	2.56	2.62	2.63	2.67	2.70	2.74	2.76	2.81	1.5%
Northwest	Shaanxi	33.16	33.63	34.05	34.43	34.81	35.13	35.43	35.7	35.96	36.18	36.05	36.59	36.74	36.90	37.05	37.18	37.35	0.7%
	Gansu	22.55	22.85	23.14	23.45	23.78	24.38	24.67	24.94	25.19	25.43	25.62	25.75	25.93	26.03	26.19	25.92	26.06	0.9%
	Qinghai	4.48	4.54	4.61	4.67	4.74	4.81	4.88	4.96	5.03	5.1	5.18	5.23	5.29	5.34	5.39	5.43	5.48	1.3%
	Ningxia	4.7	4.8	4.87	4.95	5.04	5.13	5.21	5.3	5.38	5.43	5.62	5.63	5.72	5.80	5.88	5.95	6.04	1.6%
	Xinjiang	15.29	15.55	15.81	16.05	16.32	16.61	16.89	14.78	17.47	17.74	19.25	18.76	19.05	19.34	19.63	20.08	20.50	1.8%
National Total		1,143.33	1,158.23	1,171.71	1,185.17	1,198.50	1,211.21	1,223.89	1,236.26	1,248.10	1,259.09	1,265.83	1,276.27	1,284.53	1,292.27	1,299.88	1,307.56	1,314.48	0.9%
Balance ⁽¹⁾		3.33	4.61	6.01	7.81	9.79	8.59	10.94	15.44	15.28	16.90	3.55	8.44	9.35	8.54	5.73	25.43	23.17	

[1] Totals differ from the sum of regional GDP because each region calculates GDP its own methods, which may differ from those used by the National Bureau of Statistics.

NB: Average Annual Growth Rate is calculated over the 16-year period from 1990 to 2006.

Source: NBS, China Statistical Yearbook, various years; China Statistical Abstract, 2007.

Table 10B.4. Gross Output Value by Sectors^[1]

1. Gross Output, Billion Current Yuan

Year	Total	Agriculture	Industry	Construction	Transport	Commerce
1952	101.5	46.1	34.9	5.7	3.5	11.3
1953	124.1	51.0	45.0	8.5	4.2	15.4
1954	134.6	53.5	51.5	8.2	4.8	16.6
1955	141.5	57.5	53.4	8.6	5.0	17.0
1956	163.9	61.0	64.2	14.6	5.6	18.5
1957	160.6	53.7	70.4	11.8	6.0	18.7
1958	213.8	56.6	108.3	20.2	9.0	19.7
1959	254.8	49.7	148.3	23.5	12.1	21.2
1960	267.9	45.7	163.7	24.8	13.1	20.6
1961	197.8	55.9	106.2	9.0	7.6	19.1
1962	180.0	58.4	92.0	7.4	6.2	16.0
1963	195.6	64.2	99.3	9.7	6.6	15.8
1964	226.8	72.0	116.4	15.1	7.2	16.1
1965	269.5	83.3	140.2	17.7	9.1	19.2
1966	306.2	91.0	162.4	19.7	10.2	22.9
1967	277.4	92.4	138.2	15.5	8.6	22.7
1968	264.8	92.8	128.5	13.2	8.3	22.0
1969	318.4	94.8	166.5	22.2	9.9	25.0
1970	380.0	102.1	211.7	27.1	11.7	27.4
1971	420.3	106.8	241.4	31.1	12.8	28.2
1972	439.6	107.5	256.5	32.3	13.6	29.7
1973	477.6	117.3	279.4	33.5	14.4	33.0
1974	485.9	121.5	279.2	37.6	14.2	33.4
1975	537.9	126.0	320.7	43.7	16.0	31.5
1976	543.3	125.8	327.8	43.5	15.5	30.7
1977	600.3	125.3	372.5	46.2	17.9	38.4
1978	684.6	139.7	423.7	56.9	20.5	43.8
1979	764.2	169.8	468.1	64.5	20.9	40.9
1980	853.4	192.3	515.4	76.7	25.0	44.0
1981	907.5	218.1	540.0	74.7	25.7	49.0
1982	996.6	248.3	581.1	91.2	28.6	47.4
1983	1,113.1	275.0	646.1	105.3	31.8	54.9
1984	1,317.1	321.4	761.7	126.3	38.8	68.9
1985	1,658.2	361.9	971.6	165.6	48.8	110.3
1986	1,904.5	401.3	1,119.4	203.8	59.8	120.2
1987	2,303.4	467.6	1,381.3	243.1	70.2	141.2
1988	2,980.7	586.5	1,822.4	296.7	83.7	191.4
1989	3,451.9	653.5	2,201.7	128.3	99.0	214.3
1990	3,803.5	766.2	2,392.4	134.5	153.5	187.1
1991	4,380.3	815.7	2,824.8	228.5	166.5	20.3
1992	5,584.2	908.5	3,706.6	217.4	180.5	269.0
1993		1,099.6	4,840.2	325.4		
1994		1,575.1	7,017.6	465.3		
1995		2,034.1	9,189.4	579.4		
1996		2,235.8	9,959.5	828.2		
1997		2,378.8	11,373.0	912.6		
1998		2,454.2	11,904.8	1,006.2		
1999		2,451.9	7,270.7	1,115.3		
2000		2,491.6	8,567.4	1,249.8		
2001		2,618.0	9,544.9	1,536.2		
2002		2,739.1	11,077.6	1,852.7		
2003		2,969.2	14,227.1	2,308.4		
2004		3,623.9	18,722.1	2,774.5		
2005		3,945.1	22,231.6	3,455.2		
2006		4,242.4	31,658.9	4,155.7		

[1] 1992 is the last year for which gross output value statistics are available for all sectors. Only agricultural, industrial, and construction gross output value data are published for subsequent years.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.4. Gross Output Value by Sectors^[1] (continued)

2. Gross Output, Index Based on Constant Prices (1980 = 100)^[2]

Year	Total	Agriculture	Industry	Construction	Transport	Commerce
1952	11.7	45.9	5.1	7.8	11.8	25.0
1953	13.9	47.3	6.6	12.0	14.9	32.5
1954	15.1	48.9	7.7	11.9	17.3	34.3
1955	16.0	52.6	8.1	12.7	18.3	35.2
1956	18.9	55.3	10.4	19.4	21.0	38.3
1957	20.0	57.3	11.6	18.5	23.7	37.8
1958	26.5	58.7	17.9	31.5	35.9	39.8
1959	31.3	50.7	24.4	34.3	48.2	42.9
1960	32.8	44.2	27.2	35.4	52.5	41.5
1961	21.8	43.2	16.8	12.7	30.4	33.8
1962	19.6	45.8	14.0	10.8	24.5	33.0
1963	21.6	51.2	15.2	14.4	26.1	35.2
1964	25.4	58.1	18.2	22.2	28.4	35.6
1965	30.2	62.9	22.9	27.4	35.9	35.6
1966	35.3	68.4	27.8	30.8	40.3	42.7
1967	31.8	69.4	23.9	24.3	34.3	42.5
1968	30.3	67.7	22.7	20.7	33.6	41.1
1969	38.0	68.5	30.5	34.7	39.9	47.1
1970	47.2	72.4	40.5	42.4	47.4	52.6
1971	52.1	74.8	46.4	47.9	51.8	54.1
1972	54.5	74.0	49.6	49.1	55.1	57.0
1973	59.2	80.1	54.3	49.9	58.3	63.3
1974	60.3	82.9	54.6	54.8	57.5	64.1
1975	67.2	85.5	63.1	62.4	64.8	66.6
1976	68.2	85.1	64.6	61.2	62.8	68.9
1977	75.2	84.8	74.1	64.0	72.5	75.8
1978	85.0	91.7	84.1	77.6	83.0	86.2
1979	92.3	98.6	91.5	85.9	84.6	94.1
1980	100.0	100.0	100.0	100.0	100.0	100.0
1981	104.4	105.8	104.3	94.5	102.8	117.3
1982	114.3	117.7	112.4	112.1	114.4	124.8
1983	126.0	126.9	125.0	123.9	124.8	137.9
1984	144.5	142.5	145.4	140.4	138.8	154.3
1985	169.3	147.3	176.5	169.0	166.4	185.2
1986	186.5	152.3	197.1	192.6	184.0	205.4
1987	212.9	161.1	231.9	211.9	204.4	224.7
1988	246.5	167.5	280.2	227.2	230.4	245.2
1989	259.9	172.6	304.1	200.9	255.6	231.6
1990	277.2	185.8	327.7	201.8	268.4	223.2
1991	309.1	192.7	376.2	222.0	285.7	240.9
1992	376.1	205.0	469.1	277.7	309.0	260.7
1993		220.9	597.2			
1994		239.9	741.7			
1995		266.1	892.2			
1996		291.1	1,040.3			
1997		310.6	1,176.5			
1998		329.3	1,303.0			
1999		344.7	1,453.9			
2000		357.1	1,506.2			
2001		372.1	1,569.5			
2002		390.4	1,646.4			
2003		405.6	1,710.6			
2004		436.0	1,838.9			
2005		460.9	1,943.7			
2006		485.8	2,048.7			

[1] 1992 is the last year for which constant gross output value statistics are available for all sectors. Only agricultural and industrial gross output value data are published for subsequent years.

[2] These index figures can be thought of as percentages, e.g., at constant prices, total gross output in 1992 was 376.1% of gross output in 1980.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.4. Gross Output Value by Sectors^[1] (continued)

3. Gross Output, Billion Constant 1980 Yuan^[3]

Year	Total	Sum of Sectors ^[4]	Agriculture	Industry	Con-struction	Transport	Commerce
1952	99.9	134.3	88.3	26.1	6.0	3.0	11.0
1953	118.6	152.3	91.0	34.0	9.2	3.7	14.3
1954	128.7	162.2	94.1	39.6	9.1	4.3	15.1
1955	136.5	172.9	101.2	41.8	9.8	4.6	15.5
1956	160.9	196.9	106.3	53.6	14.9	5.2	16.8
1957	170.7	206.6	110.1	59.7	14.2	5.9	16.6
1958	226.4	255.9	112.8	92.5	24.1	9.0	17.5
1959	267.1	280.5	97.4	125.9	26.3	12.0	18.9
1960	279.5	283.6	85.1	140.0	27.1	13.1	18.2
1961	186.0	201.7	83.0	86.4	9.7	7.6	14.9
1962	167.3	189.2	88.2	72.1	8.3	6.1	14.5
1963	184.4	209.7	98.4	78.2	11.0	6.5	15.5
1964	216.7	245.2	111.8	93.6	17.0	7.1	15.7
1965	258.0	284.9	121.0	118.3	21.0	9.0	15.7
1966	301.6	327.0	131.5	143.0	23.6	10.1	18.8
1967	271.7	302.7	133.5	123.3	18.6	8.6	18.7
1968	259.0	289.7	130.3	117.1	15.8	8.4	18.1
1969	324.4	346.2	131.7	157.2	26.6	10.0	20.7
1970	402.8	415.3	139.3	208.6	32.5	11.8	23.1
1971	445.0	456.4	143.8	239.2	36.7	13.0	23.8
1972	464.9	474.4	142.3	255.6	37.7	13.8	25.1
1973	505.0	514.7	154.0	280.0	38.3	14.6	27.9
1974	514.6	525.7	159.5	281.6	42.0	14.4	28.2
1975	573.9	583.1	164.4	325.3	47.9	16.2	29.3
1976	581.8	589.8	163.7	333.2	46.9	15.7	30.3
1977	641.9	645.5	163.1	381.8	49.1	18.1	33.4
1978	725.6	728.1	176.3	433.5	59.5	20.8	37.9
1979	787.5	789.8	189.6	471.8	65.9	21.2	41.4
1980	853.4	853.4	192.3	515.4	76.7	25.0	44.0
1981	890.9	890.8	203.4	537.6	72.5	25.7	51.6
1982	975.5	975.4	226.4	579.5	86.0	28.6	54.9
1983	1,075.2	1,075.3	244.0	644.4	95.0	31.2	60.7
1984	1,233.4	1,233.5	273.9	749.3	107.7	34.7	67.9
1985	1,444.9	1,445.5	283.3	909.6	129.6	41.6	81.5
1986	1,591.6	1,592.6	292.8	1,015.7	147.7	46.0	90.4
1987	1,816.5	1,817.7	309.8	1,195.4	162.5	51.1	98.9
1988	2,104.0	2,105.7	322.0	1,443.9	174.3	57.6	107.9
1989	2,217.8	2,219.1	332.0	1,567.2	154.1	63.9	101.9
1990	2,365.3	2,366.3	357.3	1,688.9	154.8	67.1	98.2
1991	2,637.5	2,657.2	370.6	1,938.8	170.3	71.4	106.0
1992	3,209.6	3,216.8	394.1	2,417.7	213.0	77.2	114.7
1993			424.9	3,077.8			
1994			461.4	3,822.6			
1995			511.7	4,598.6			
1996			559.8	5,361.5			
1997			597.3	6,063.8			
1998			633.2	6,715.7			
1999			662.9	7,493.4			
2000			686.8	7,763.1			
2001			715.6	8,089.2			
2002			750.7	8,485.5			
2003			780.0	8,816.5			
2004			838.5	9,477.7			
2005			886.3	10,017.9			
2006			934.1	10,558.9			

[1] 1992 is the last year for which constant gross output value statistics are available for all sectors. Only agricultural and industrial gross output value data are published for subsequent years.

[3] Gross output in constant yuan = base year gross output in current yuan * (index for current year ÷ index for base year).

[4] Total gross output in 1980 yuan is not equal to the sum of sectoral gross outputs because the sectoral deflators are different from the deflators for total gross output.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.4. Gross Output Value by Sectors^[1] (continued)

4. Sectoral Shares of Gross Output, Percent^[5]

Year	Agriculture	Industry	Construction	Transport	Commerce
1952	65.7%	19.5%	4.5%	2.2%	8.2%
1953	59.7%	22.4%	6.1%	2.4%	9.4%
1954	58.0%	24.4%	5.6%	2.7%	9.3%
1955	58.6%	24.2%	5.6%	2.6%	9.0%
1956	54.0%	27.2%	7.6%	2.7%	8.6%
1957	53.3%	28.9%	6.9%	2.9%	8.1%
1958	44.1%	36.1%	9.4%	3.5%	6.9%
1959	34.7%	44.9%	9.4%	4.3%	6.7%
1960	30.0%	49.4%	9.6%	4.6%	6.4%
1961	41.2%	42.9%	4.8%	3.8%	7.4%
1962	46.6%	38.1%	4.4%	3.2%	7.7%
1963	46.9%	37.3%	5.3%	3.1%	7.4%
1964	45.6%	38.2%	7.0%	2.9%	6.4%
1965	42.5%	41.5%	7.4%	3.2%	5.5%
1966	40.2%	43.7%	7.2%	3.1%	5.7%
1967	44.1%	40.7%	6.1%	2.8%	6.2%
1968	45.0%	40.4%	5.5%	2.9%	6.2%
1969	38.0%	45.4%	7.7%	2.9%	6.0%
1970	33.5%	50.2%	7.8%	2.9%	5.6%
1971	31.5%	52.4%	8.0%	2.8%	5.2%
1972	30.0%	53.9%	7.9%	2.9%	5.3%
1973	29.9%	54.4%	7.4%	2.8%	5.4%
1974	30.3%	53.6%	8.0%	2.7%	5.4%
1975	28.2%	55.8%	8.2%	2.8%	5.0%
1976	27.8%	56.5%	8.0%	2.7%	5.1%
1977	25.3%	59.2%	7.6%	2.8%	5.2%
1978	24.2%	59.5%	8.2%	2.9%	5.2%
1979	24.0%	59.7%	8.3%	2.7%	5.2%
1980	22.5%	60.4%	9.0%	2.9%	5.2%
1981	22.8%	60.3%	8.1%	2.9%	5.8%
1982	23.2%	59.4%	8.8%	2.9%	5.6%
1983	22.7%	59.9%	8.8%	2.9%	5.6%
1984	22.2%	60.7%	8.7%	2.8%	5.5%
1985	19.6%	62.9%	9.0%	2.9%	5.6%
1986	18.4%	63.8%	9.3%	2.9%	5.7%
1987	17.0%	65.8%	8.9%	2.8%	5.4%
1988	15.3%	68.6%	8.3%	2.7%	5.1%
1989	15.0%	70.6%	6.9%	2.9%	4.6%
1990	15.1%	71.4%	6.5%	2.8%	4.1%
1991	13.9%	73.0%	6.4%	2.7%	4.0%
1992	12.3%	75.2%	6.6%	2.4%	3.6%

[1] 1992 is the last year for which gross output value statistics are available for all sectors. Only agricultural, industrial, and construction gross output value data are published for subsequent years.

[5] Relative to the sum of real sectoral gross output (second column of data on previous page), not the total calculated from a single deflator.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.5. Population

1. Millions

Year	Total Population	Gender		Location	
		Male	Female	Urban	Rural
1978	962.59	495.67	466.92	172.45	790.14
1979	975.42			184.95	790.74
1980	987.05	507.85	479.20	191.40	795.65
1981	1,000.72			201.71	799.01
1982	1,016.54			214.80	801.74
1983	1,030.08			222.74	807.34
1984	1,043.57			240.17	803.40
1985	1,058.51	547.25	511.26	250.94	807.57
1986	1,075.07			263.66	811.41
1987	1,093.00			276.74	816.26
1988	1,110.26			286.61	823.65
1989	1,127.04	580.99	546.05	295.40	831.64
1990	1,143.33	589.04	554.29	301.95	841.38
1991	1,158.23	594.66	563.57	312.03	846.20
1992	1,171.71	598.11	573.60	321.75	849.96
1993	1,185.17	604.72	580.45	331.73	853.44
1994	1,198.50	612.46	586.04	341.69	856.81
1995	1,211.21	618.08	593.13	351.74	859.47
1996	1,223.89	622.00	601.89	373.04	850.85
1997	1,236.26	631.31	604.95	394.49	841.77
1998	1,248.10	639.40	608.21	416.08	831.53
1999	1,259.09	646.92	610.94	437.48	820.38
2000	1,265.83	654.37	613.06	459.06	808.37
2001	1,276.27	656.72	619.55	480.64	795.63
2002	1,284.53	661.15	623.38	502.12	782.41
2003	1,292.27	665.56	626.71	523.76	768.51
2004	1,299.88	669.76	630.12	542.83	757.05
2005	1,307.56	673.75	633.81	562.12	745.44
2006	1,314.48	677.28	637.20	577.06	737.42

N.B. Beginning with data for 2000, the China Statistical Yearbook has used new urban and rural categories, which have been applied to population figures going back to 1979. Data using the former categories are not available for years after 1999 (see subtables 4 to 6).

Source: NBS, China Statistical Yearbook, 2007.

Table 10B.5. Population (continued)**2. Shares of Total**

Year	Total Population	Gender		Location	
		Male	Female	Urban	Rural
1978	962.59	51.49%	48.51%	17.92%	82.08%
1979				18.96%	81.07%
1980	987.05	51.45%	48.55%	19.39%	80.61%
1981				20.16%	79.84%
1982				21.13%	78.87%
1983				21.62%	78.38%
1984				23.01%	76.99%
1985	1,058.51	51.70%	48.30%	23.71%	76.29%
1986				24.52%	75.48%
1987				25.32%	74.68%
1988				25.81%	74.19%
1989	1,127.04	51.55%	48.45%	26.21%	73.79%
1990	1,143.33	51.52%	48.48%	26.41%	73.59%
1991	1,158.23	51.34%	48.66%	26.94%	73.06%
1992	1,171.71	51.05%	48.95%	27.46%	72.54%
1993	1,185.17	51.02%	48.98%	27.99%	72.01%
1994	1,198.50	51.10%	48.90%	28.51%	71.49%
1995	1,211.21	51.03%	48.97%	29.04%	70.96%
1996	1,223.89	50.82%	49.18%	30.48%	69.52%
1997	1,236.26	51.07%	48.93%	31.91%	68.09%
1998	1,247.61	51.23%	48.73%	33.34%	66.62%
1999	1,257.86	51.38%	48.52%	34.75%	65.16%
2000	1,267.43	51.69%	48.43%	36.27%	63.86%
2001	1,276.27	51.46%	48.54%	37.66%	62.34%
2002	1,284.53	51.47%	48.53%	39.09%	60.91%
2003	1,292.27	51.50%	48.50%	40.53%	59.47%
2004	1,299.88	51.52%	48.48%	41.76%	58.24%
2005	1,307.56	51.53%	48.47%	42.99%	57.01%
2006	1,314.48	51.52%	48.48%	43.90%	56.10%

N.B. Beginning with data for 2000, the China Statistical Yearbook has used new urban and rural categories, which have been applied to population figures going back to 1979. Data using the former categories are not available for years after 1999 (see subtables 4 to 6).

Source: NBS, China Statistical Yearbook, 2007.

Table 10B.5. Population (continued)

3. Annual Growth Rates

Year	Total Population	Gender		Location	
		Male	Female	Urban	Rural
1979	1.33%			7.25%	0.08%
1980	1.19%			3.49%	0.62%
1981	1.38%			5.39%	0.42%
1982	1.58%			6.49%	0.34%
1983	1.33%			3.70%	0.70%
1984	1.31%			7.83%	-0.49%
1985	1.43%			4.48%	0.52%
1986	1.56%			5.07%	0.48%
1987	1.67%			4.96%	0.60%
1988	1.58%			3.57%	0.91%
1989	1.51%			3.07%	0.97%
1990	1.45%	1.39%	1.51%	2.22%	1.17%
1991	1.30%	0.95%	1.67%	3.34%	0.57%
1992	1.16%	0.58%	1.78%	3.12%	0.44%
1993	1.15%	1.11%	1.19%	3.10%	0.41%
1994	1.12%	1.28%	0.96%	3.00%	0.39%
1995	1.06%	0.92%	1.21%	2.94%	0.31%
1996	1.05%	0.63%	1.48%	6.06%	-1.00%
1997	1.01%	1.50%	0.51%	5.75%	-1.07%
1998	0.96%	1.28%	0.54%	5.47%	-1.22%
1999	0.88%	1.18%	0.45%	5.14%	-1.34%
2000	0.54%	1.15%	0.35%	4.93%	-1.46%
2001	0.82%	0.36%	1.06%	4.70%	-1.58%
2002	0.65%	0.67%	0.62%	4.47%	-1.66%
2003	0.60%	0.67%	0.53%	4.31%	-1.78%
2004	0.59%	0.63%	0.54%	3.64%	-1.49%
2005	0.59%	0.60%	0.59%	3.55%	-1.53%
2006	0.53%	0.52%	0.53%	2.66%	-1.08%

N.B. Beginning with data for 2000, the China Statistical Yearbook has used new urban and rural categories, which have been applied to population figures going back to 1979. Data using the former categories are not available for years after 1999 (see subtables 4 to 6).

Source: NBS, China Statistical Yearbook, 2007.

Table 10B.5. Population (continued)

4. Millions ^[1]

Year	Total Population	Type I Categories		Type II Categories ^[2]		Non-Agricultural Fraction of Total Population
		City & Town	Rural	Non- Agricultural	Agricultural	
1950	551.96	61.69	490.27	91.37	460.59	17%
1955	614.65	82.85	531.80	93.35	521.30	15%
1960	662.07	130.73	531.34	137.31	524.76	21%
1965	725.38	130.45	594.93	121.22	604.16	17%
1970	829.92	144.24	685.68	126.60	703.32	15%
1971	852.29	147.11	705.18	133.50	718.79	16%
1972	871.77	149.35	722.42	136.32	735.45	16%
1973	892.11	153.45	738.66	139.92	752.19	16%
1974	908.59	155.95	752.64	140.79	767.80	15%
1975	924.20	160.30	763.90	142.78	781.42	15%
1976	937.17	163.41	773.76	145.17	792.00	15%
1977	949.74	166.69	783.05	146.74	802.80	15%
1978	962.59	172.45	790.14	152.30	810.29	16%
1979	975.42	184.95	790.47	161.86	813.56	17%
1980	987.05	191.40	795.65	168.00	819.05	17%
1981	1,000.72	201.71	799.01	174.13	826.59	17%
1982	1,016.54	214.80	801.74	183.34	833.20	18%
1983	1,030.08	222.74	807.34	183.78	841.17	18%
1984	1,043.57	240.17	803.40	196.86	837.89	19%
1985	1,058.51	250.94	807.57	210.54	834.78	20%
1986	1,075.07	263.66	811.41	209.02	848.19	20%
1987	1,093.00	276.74	816.26	215.92	856.48	20%
1988	1,110.26	286.61	823.65	225.51	864.27	21%
1989	1,127.04	295.40	831.64	233.71	873.05	21%
1990 ^[3]	1,143.33	301.95	841.38	238.87	904.46	21%
1991	1,158.23	312.03	846.20	244.18	905.25	21%
1992	1,171.71	321.75	849.96	252.98	911.54	22%
1993	1,185.17	331.73	853.44	263.88	913.34	22%
1994	1,198.50	341.69	856.81	276.38	922.12	23%
1995	1,211.21	351.74	859.47	285.63	925.58	24%
1996	1,223.89	373.04	850.85	294.59	929.30	24%
1997	1,236.26	394.49	841.77	302.11	934.15	24%
1998	1,247.61	416.08	831.53	307.85	940.25	25%
1999	1,257.86	437.48	820.38	315.62	943.47	25%
2000	1,267.43	459.06	808.37			
2001	1,276.27	480.64	795.63			
2002	1,284.53	502.12	782.41			
2003	1,292.27	523.76	768.51			
2004	1,299.88	542.83	757.05			
2005	1,307.56	562.12	745.44			
2006	1,314.45	577.06	737.42			

[1] This table presents two different types of population divisions in China, that have been superseded by the categories used in subtables 1 and 2. One type divides the population into city & town and rural categories (referred to above as Type I), which are intended to be comparable with the urban and rural categories in the West. A change in the definition of urban areas in 1984 increased the reported urban population, though 1991 and later editions of the China Statistical Yearbook have corrected for this. Another type of division cuts the population into non-agricultural and agricultural categories (Type II).

[2] The sum of these two categories as reported is not always equal to total population.

[3] Data in 1990-2000 were adjusted on the basis of the 2000 National Population Census. Data in 2001-2004 and 2006 have been estimated on the basis of the annual national sample surveys on population changes. Data in 2005 are estimated on the National 1% Population Sample Survey.

N.B.: Data presented in these tables include military personnel, but exclude the population of Hong Kong, Macao and Taiwan.

Source: Population Research Institute and Chinese Academy of Sciences, 1991; NBS, China Statistical Yearbook, various years; EB, China Rural Statistical Yearbook, 1993.

Table 10B.5. Population (continued)

5. Shares of Total^[1]

Year	Total Population	Type I Categories		Type II Categories ^[2]		Non-Agricultural Fraction of Total Population
		City & Town	Rural	Non- Agricultural	Agricultural	
1950	100%	11%	89%	17%	83%	17%
1955	100%	13%	87%	15%	85%	15%
1960	100%	20%	80%	21%	79%	21%
1965	100%	18%	82%	17%	83%	17%
1970	100%	17%	83%	15%	85%	15%
1971	100%	17%	83%	16%	84%	16%
1972	100%	17%	83%	16%	84%	16%
1973	100%	17%	83%	16%	84%	16%
1974	100%	17%	83%	15%	85%	15%
1975	100%	17%	83%	15%	85%	15%
1976	100%	17%	83%	15%	85%	15%
1977	100%	18%	82%	15%	85%	15%
1978	100%	18%	82%	16%	84%	16%
1979	100%	19%	81%	17%	83%	17%
1980	100%	19%	81%	17%	83%	17%
1981	100%	20%	80%	17%	83%	17%
1982	100%	21%	79%	18%	82%	18%
1983	100%	22%	78%	18%	82%	18%
1984	100%	23%	77%	19%	80%	19%
1985	100%	24%	76%	20%	79%	20%
1986	100%	25%	75%	19%	79%	20%
1987	100%	25%	75%	20%	78%	20%
1988	100%	26%	74%	20%	78%	21%
1989	100%	26%	74%	21%	77%	21%
1990	100%	26%	74%	21%	79%	21%
1991	100%	27%	73%	21%	78%	21%
1992	100%	27%	73%	22%	78%	22%
1993	100%	28%	72%	22%	77%	22%
1994	100%	29%	71%	23%	77%	23%
1995	100%	29%	71%	24%	76%	24%
1996	100%	30%	70%	24%	76%	24%
1997	100%	32%	68%	24%	76%	24%
1998	100%	33%	67%	25%	75%	25%
1999	100%	35%	65%	25%	75%	25%
2000	100%	36%	64%			
2001	100%	38%	62%			
2002	100%	39%	61%			
2003	100%	41%	59%			
2004	100%	42%	58%			
2005	100%	43%	57%			
2006	100%	44%	56%			

[1] This table presents two different types of population divisions in China, that have been superseded by the categories used in subtables 1 and 2. One type divides the population into city & town and rural categories (referred to above as Type I), which are intended to be comparable with the urban and rural categories in the West. A change in the definition of urban areas in 1984 increased the reported urban population, though 1991 and later editions of the China Statistical Yearbook have corrected for this. Another type of division cuts the population into non-agricultural and agricultural categories (Type II).

[2] The sum of these two categories as reported is not always equal to total population.

N.B.: Data presented in these tables include military personnel, but exclude the population of Hong Kong, Macao and Taiwan.

Source: Population Research Institute and Chinese Academy of Sciences, 1991; NBS, China Statistical Yearbook, various years; EB, China Rural Statistical Yearbook, 1993.

Table 10B.5. Population (continued)

6. Annual Growth Rates^[1]

Year	Total Population	Type I Categories		Type II Categories ^[2]	
		City & Town	Rural	Non- Agricultural	Agricultural
1971	2.70%	1.99%	2.84%	5.45%	2.20%
1972	2.29%	1.52%	2.44%	2.11%	2.32%
1973	2.33%	2.75%	2.25%	2.64%	2.28%
1974	1.85%	1.63%	1.89%	0.62%	2.08%
1975	1.72%	2.79%	1.50%	1.41%	1.77%
1976	1.40%	1.94%	1.29%	1.67%	1.35%
1977	1.34%	2.01%	1.20%	1.08%	1.36%
1978	1.35%	3.46%	0.91%	3.79%	0.93%
1979	1.33%	7.25%	0.04%	6.28%	0.40%
1980	1.19%	3.49%	0.66%	3.79%	0.67%
1981	1.38%	5.39%	0.42%	3.65%	0.92%
1982	1.58%	6.49%	0.34%	5.29%	0.80%
1983	1.33%	3.70%	0.70%	0.24%	0.96%
1984	1.31%	7.83%	-0.49%	7.12%	-0.39%
1985	1.43%	4.48%	0.52%	6.95%	-0.37%
1986	1.56%	5.07%	0.48%	-0.72%	1.61%
1987	1.67%	4.96%	0.60%	3.30%	0.98%
1988	1.58%	3.57%	0.91%	4.44%	0.91%
1989	1.51%	3.07%	0.97%	3.64%	1.02%
1990	1.45%	2.22%	1.17%	2.21%	3.60%
1991	1.30%	3.34%	0.57%	2.22%	0.09%
1992	1.16%	3.12%	0.44%	3.60%	0.70%
1993	1.15%	3.10%	0.41%	4.31%	0.20%
1994	1.12%	3.00%	0.39%	4.74%	0.96%
1995	1.06%	2.94%	0.31%	3.35%	0.38%
1996	1.05%	6.06%	-1.00%	3.14%	0.40%
1997	1.01%	5.75%	-1.07%	2.55%	0.52%
1998	0.92%	5.47%	-1.22%	1.90%	0.65%
1999	0.82%	5.14%	-1.34%	2.52%	0.34%
2000	0.76%	4.93%	-1.46%		
2001	0.70%	4.70%	-1.58%		
2002	0.65%	4.47%	-1.66%		
2003	0.60%	4.31%	-1.78%		
2004	0.59%	3.64%	-1.49%		
2005	0.59%	3.55%	-1.53%		
2006	0.53%	2.66%	-1.08%		

[1] This table presents two different types of population divisions in China, that have been superseded by the categories used in subtables 1 and 2. One type divides the population into city & town and rural categories (referred to above as Type I), which are intended to be comparable with the urban and rural categories in the West. A change in the definition of urban areas in 1984 increased the reported urban population, though 1991 and later editions of the China Statistical Yearbook have corrected for this. Another type of division cuts the population into non-agricultural and agricultural categories (Type II).

[2] The sum of these two categories as reported is not always equal to total population.

N.B.: Data presented in these tables include military personnel, but exclude the population of Hong Kong, Macao and Taiwan.

Source: Population Research Institute and Chinese Academy of Sciences, 1991; NBS, China Statistical Yearbook, various years; EB, China Rural Statistical Yearbook, 1993.

Figure 10B.3. Population, 1978-2006

Table 10B.6. Population and Area by Province

1. 1999

Planning Region	Province	1999 Population (millions)	Provincial Area (thousand sq km)	1999 Population Density (persons/sq km)
North	Beijing	12.57	16.8	748.2
	Tianjin	9.59	11.3	848.7
	Hebei	66.14	188.0	351.8
	Shanxi	32.04	156.1	205.3
	Inner Mongolia	23.62	1,200.0	19.7
Northeast	Liaoning	41.71	145.8	286.1
	Jilin	26.58	138.0	192.6
	Heilongjiang	37.92	473.4	80.1
East	Shanghai	14.74	6.2	2377.4
	Jiangsu	72.13	102.6	703.0
	Zhejiang	44.75	101.8	439.6
	Anhui	62.37	139.5	447.1
	Fujian	33.16	121.5	272.9
	Jianxi	42.31	166.8	253.7
	Shandong	88.83	153.1	580.2
South-Central	Henan	93.87	166.9	562.4
	Hubei	59.38	187.5	316.7
	Hunan	65.32	210.1	310.9
	Guangdong	72.70	178.0	408.4
	Guangxi	47.13	230.5	204.5
	Hainan	7.62	34.0	224.1
Southwest	Chongqing	30.75	82.4	373.2
	Sichuan	85.50	566.6	150.9
	Guizhou	37.10	176.3	210.4
	Yunnan	41.92	392.2	106.9
	Xizang (Tibet)	2.56	1,182.7	2.2
Northwest	Shaanxi	36.18	205.0	176.5
	Gansu	25.43	455.0	55.9
	Qinghai	5.10	779.1	6.5
	Ningxia	5.43	66.0	82.3
	Xinjiang	17.74	1,635.2	10.8
Calculated National Total/ Average ^[1]		1,242.19	9,668.40	128.5

[1] Because of differences in the coverage and collection of local and national statistics the sum of local statistics may not equal the national total.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.6. Population and Area by Province (continued)

2. 2001

Planning Region	Province	2001 Population (millions)	Provincial Area (thousand sq km)	2001 Population Density persons/sq km)
North	Beijing	13.83	16.8	823.2
	Tianjin	10.04	11.3	888.5
	Hebei	66.99	188.0	356.3
	Shanxi	32.72	156.1	209.6
	Inner Mongolia	23.77	1,200.0	19.8
Northeast	Liaoning	41.94	145.8	287.7
	Jilin	26.91	138.0	195.0
	Heilongjiang	38.11	473.4	80.5
East	Shanghai	16.14	6.2	2,603.2
	Jiangsu	73.55	102.6	716.9
	Zhejiang	46.13	101.8	453.1
	Anhui	63.28	139.5	453.6
	Fujian	34.4	121.5	283.1
	Jianxi	41.86	166.8	251.0
	Shandong	90.41	153.1	590.5
South-Central	Henan	95.55	166.9	572.5
	Hubei	59.75	187.5	318.7
	Hunan	65.96	210.1	313.9
	Guangdong	77.83	178.0	437.2
	Guangxi	47.88	230.5	207.7
	Hainan	7.96	34.0	234.1
Southwest	Chongqing	30.97	82.4	375.8
	Sichuan	86.4	566.6	152.5
	Guizhou	37.99	176.3	215.5
	Yunnan	42.87	392.2	109.3
	Xizang (Tibet)	2.63	1,182.7	2.2
Northwest	Shaanxi	36.59	205.0	178.5
	Gansu	25.75	455.0	56.6
	Qinghai	5.23	779.1	6.7
	Ningxia	5.63	66.0	85.3
	Xinjiang	18.76	1,635.2	11.5
Calculated National Total/ Average ^[1]		1,267.83	9,668.40	131.1

[1] Because of differences in the coverage and collection of local and national statistics the sum of local statistics may not equal the national total.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.6. Population and Area by Province (continued)

3. 2002

Planning Region	Province	2002 Population (millions)	Provincial Area (thousand sq km)	2002 Population Density (persons/sq km)
North	Beijing	14.23	16.8	847.0
	Tianjin	10.07	11.3	891.2
	Hebei	67.35	188.0	358.2
	Shanxi	32.94	156.1	211.0
	Inner Mongolia	23.79	1,200.0	19.8
Northeast	Liaoning	42.03	145.8	288.3
	Jilin	26.99	138.0	195.6
	Heilongjiang	38.13	473.4	80.5
East	Shanghai	16.25	6.2	2,621.0
	Jiangsu	73.81	102.6	719.4
	Zhejiang	46.47	101.8	456.5
	Anhui	63.38	139.5	454.3
	Fujian	34.66	121.5	285.3
	Jianxi	42.22	166.8	253.1
	Shandong	90.82	153.1	593.2
South-Central	Henan	96.13	166.9	576.0
	Hubei	59.88	187.5	319.4
	Hunan	66.29	210.1	315.5
	Guangdong	78.59	178.0	441.5
	Guangxi	48.22	230.5	209.2
	Hainan	8.03	34.0	236.2
Southwest	Chongqing	31.07	82.4	377.0
	Sichuan	86.73	566.6	153.1
	Guizhou	38.37	176.3	217.6
	Yunnan	43.33	392.2	110.5
	Xizang (Tibet)	2.67	1,182.7	2.3
Northwest	Shaanxi	36.74	205.0	179.2
	Gansu	25.93	455.0	57.0
	Qinghai	5.29	779.1	6.8
	Ningxia	5.72	66.0	86.7
	Xinjiang	19.05	1,635.2	11.6
Calculated National Total/ Average ^[1]		1,275.18	9,668.40	131.9

[1] Because of differences in the coverage and collection of local and national statistics the sum of local statistics may not equal the national total.

Source: NBS, China Statistical Yearbook, various years.

Table 10B.6. Population and Area by Province (continued)

3. 2006

Planning Region	Province	2006 Population (millions)	Provincial Area (thousand sq km)	2006 Population Density (persons/sq km)
North	Beijing	15.81	16.8	941.1
	Tianjin	10.75	11.3	951.3
	Hebei	68.98	188.0	366.9
	Shanxi	33.75	156.1	216.2
	Inner Mongolia	23.97	1,200.0	20.0
Northeast	Liaoning	42.71	145.8	292.9
	Jilin	27.23	138.0	197.3
	Heilongjiang	38.23	473.4	80.8
East	Shanghai	18.15	6.2	2,927.4
	Jiangsu	75.5	102.6	735.9
	Zhejiang	49.8	101.8	489.2
	Anhui	61.1	139.5	438.0
	Fujian	35.58	121.5	292.8
	Jianxi	43.39	166.8	260.1
	Shandong	93.09	153.1	608.0
South-Central	Henan	93.92	166.9	562.7
	Hubei	56.93	187.5	303.6
	Hunan	63.42	210.1	301.9
	Guangdong	93.04	178.0	522.7
	Guangxi	47.19	230.5	204.7
	Hainan	8.36	34.0	245.9
Southwest	Chongqing	28.08	82.4	340.8
	Sichuan	81.69	566.6	144.2
	Guizhou	37.57	176.3	213.1
	Yunnan	44.83	392.2	114.3
	Xizang (Tibet)	2.81	1,182.7	2.4
Northwest	Shaanxi	37.35	205.0	182.2
	Gansu	26.06	455.0	57.3
	Qinghai	5.48	779.1	7.0
	Ningxia	6.04	66.0	91.5
	Xinjiang	20.5	1,635.2	12.5
Calculated National Total/ Avera		1,291.31	9,668.40	133.6

[1] Because of differences in the coverage and collection of local and national statistics the sum of local statistics may not equal the national total.

Source: NBS, China Statistical Yearbook, various years; China Statistical Abstract, 2007.

Table 10B.7. Socioeconomic Indicators of Urban Households^[1]

Item	Unit	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Sample Size	households	12,500	24,338	31,126	32,855	34,945	35,235	35,660	36,730	36,290	35,390	34,940
Average Household Size	person	4.04	3.89	3.82	3.74	3.63	3.55	3.50	3.43	3.37	3.31	3.28
Average Number of Employed Persons per Household	person	2.36	2.15	2.12	2.09	2.03	2.00	1.98	1.96	1.95	1.92	1.88
Percentage of Household Members Employed	percent	58.4%	55.3%	55.5%	55.9%	56.0%	56.3%	56.6%	57.14%	57.86%	58.00%	57.32%
Number of Persons Supported per Employed Member	person	1.71	1.81	1.80	1.79	1.79	1.78	1.77	1.75	1.73	1.72	1.74
Total Annual per Capita Income	yuan	660.12	748.92	909.96	1,012.20	1,192.12	1,387.81	1,522.79	1,713.10	2,031.53	2,583.16	3,502.31
of which Available Income ^[2]	yuan	607.56	685.32	827.88	915.96	1,119.36	1,260.67	1,387.27	1,544.30	1,826.07	2,335.54	3,179.15
Annual per Capita Expenditures	yuan	559.44	673.20	798.96	884.40	1,103.98	1,210.95	1,278.89	1,453.81	1,671.73	2,110.81	2,851.34
of which Expenditures on Commodities and Services	yuan	514.32	621.48	734.64	809.27	1,013.94	1,099.89	1,150.80	1,294.84	1,467.08	1,899.16	2,479.81
Food	yuan	324.24	351.72	418.92	472.93	567.01	659.96	693.77	782.50	884.82	1,058.20	1,422.49
Clothing	yuan	86.88	98.04	113.04	121.09	153.21	149.15	170.88	199.64	240.60	300.61	390.38
Household Facilities, Articles, and Services ^[3]	yuan	50.64	71.88	88.92	100.57	148.62	133.97	129.12	139.83	161.98	184.96	335.49
Recreation, Education, and Cultural Services ^[4]	yuan	24.60	51.96	54.48	49.58	66.68	70.05	68.04	68.68	74.04	175.09	84.44
Books, Newspapers & Magazines ^[4]	yuan	5.88	6.12	6.96	7.48	8.26	10.59	11.04	13.11	16.14	18.92	24.77
Medicine and Medical Services	yuan	3.36	6.24	7.56	8.87	12.59	15.98	19.44	32.10	30.34	56.89	82.89
Fuels ^[7]	yuan	9.21	11.52	12.00	12.27	15.12	18.23	20.31	25.05	28.57		
of which: gas	yuan							2.62	4.27	5.42	8.99	11.79
Other Commodities and Services	yuan	9.51	24.00	32.76	36.48	42.45	41.96	38.20	33.93	30.59	95.50	127.56
Other Expenditures	yuan	45.12	51.72	64.32	75.13	90.04	111.06	127.44	147.55	138.13	211.55	166.06
Rent	yuan	7.80	6.48	7.20	7.74	7.83	8.82	9.36	10.66	35.72	22.00	28.79
Water & Electricity ^[7]	yuan	6.24	6.84	8.88	10.32	12.32	16.20	19.80	24.16	28.58	38.26	52.83
Tuition ^[5]	yuan	4.44	7.68	8.76	11.28	18.71	25.24	28.33	33.82			
Child Care ^[5]	yuan	2.52	3.36	3.72	3.70	4.58	5.19	5.28	7.01			
Urban Transportation ^[6]	yuan	7.56	6.72	8.40	9.10	9.12	10.16	13.52	16.89	44.17	80.63	
Post & Telecommunications ^[6]	yuan	0.72	0.60	0.72	0.82	0.97	1.26	1.79	2.82			
Cultural Events & Recreation ^[4]	yuan	2.16	2.28	2.71	3.01	3.28	3.62	4.68	6.14			84.44
Other Noncommercial ^[5]	yuan								46.05	29.66	70.66	

[1] Figures for 1985 and previous years are from sample surveys of urban staff and workers' households. Figures for later years include households of retired staff and workers, independent laborers, households of other professions, and those in county towns.

[2] Available income refers to total family income of family excluding support to family members living in other households, donations, and food expenditures by non-family members living in the household.

[3] This category was formerly termed "items for daily use".

[4] Before 1995, the category "recreation, education, and cultural services" was termed "items for recreation". Beginning in 1992, expenditures previously classified in "cultural events and recreation" were assigned to "items for recreation" and "books, newspapers and magazines".

[5] Beginning in 1992, other noncommercial expenditures includes tuition and child care.

[6] beginning in 1992, "urban transportation" and "post and telecommunications" were combined in one category.

[7] Beginning in 1999 the category "fuels" includes water and electricity.

Source: NBS, Yearbook of China's Industrial Economy, 1990; NBS, China Statistical Yearbook, various years; EB, China Social Statistical Materials, NBS.

Table 10B.7. Socioeconomic Indicators of Urban Households^[1] (continued)

Item	Unit	1995	1996	1997	1998	1999	2000 ^[8]	2001	2002	2003	2004	2005	2006
Sample Size	households	35,520	36,370	37,890	39,080	40,044	42,220	43,840	45,317	48,028	50,430	54,496	56,094
Average Household Size	person	3.23	3.2	3.19	3.16	3.14	3.13	3.1	3.04	3.01	3.01	2.96	2.95
Average Number of Employed Persons per Household	person	1.87	1.86	1.83	1.8	1.77	1.68	1.65	1.58	1.58	1.56	1.51	1.53
Percentage of Household Members Employed	percent	57.89%	58.13%	57.41%	56.98%	56.43%	53.67%	53.23%	51.97%	52.49%	52.35%	51.01%	51.86%
Number of Persons Supported per Employed Member	person	1.73	1.72	1.74	1.75	1.77	1.86	1.88	1.92	1.91	1.91	1.96	1.93
Total Annual per Capita Income	yuan	4,288.09	4,844.78	5,188.54	5,458.34	5,888.77	6,295.91	6,907.08	8,177.4	9,061.22	10,128.51	11,320.77	12,719.19
of which Available Income ^[2]	yuan	3,892.94	4,377.15	5,160.32	5,425.05	5,854.02	6,279.98	6,859.58	7,702.8	8,472.20	9,421.61	10,493.03	11,759.45
Annual per Capita Expenditures	yuan	3,537.57	3,919.47	4,185.64	4,331.61	4,615.91	4,998.00	5,309.01	6,029.88	6,510.94	7,182.10	7,942.88	8,696.55
of which Expenditures on Commodities and Services	yuan	3,116.37	3,419.49	3,594.10	3,666.08	4,109.47	4,102.49	4,304.01	4,779.25	5,090.45	5,574.95	6,137.48	6,645.24
Food	yuan	1,766.02	1,904.71	1,942.59	1,926.89	1,932.10	1,958.31	2,014.02	2,271.48	2,416.92	2,709.60	2,914.39	3,111.92
Clothing	yuan	479.20	527.95	520.91	480.86	482.37	500.46	533.66	590.88	637.73	656.79	800.51	901.78
Household Facilities, Articles, and Services ^[3]	yuan	296.94	298.15	316.89	356.83	395.48	439.29	438.92	388.687	410.34	407.37	446.52	498.48
Recreation, Education, and Cultural Services ^[4]	yuan	312.71	374.95	448.38	499.39	567.05	627.82	690.00	902.28	934.38	1,032.80	1,097.46	1,203.03
Books, Newspapers & Magazines ^[4]	yuan												
Medicine and Medical Services	yuan	110.11	143.28	179.68	205.16	245.59	318.07	343.28	430.08	475.98	528.15	600.85	620.54
Fuels ^[7]	yuan					258.09							
of which: gas	yuan												
Other Commodities and Services	yuan	151.39	170.45	185.65	196.95	228.79	258.54	284.13	195.84	215.10	240.24	277.75	309.49
Other Expenditures	yuan	483.72	574.07	681.88	756.54	877.60	1,022.83	1,147.02	1,528.32	1,655.50	1,876.42	2,094.18	2,350.15
Rent	yuan												
Water & Electricity ^[7]	yuan												
Tuition ^[5]	yuan												
Child Care ^[5]	yuan												
Urban Transportation ^[6]	yuan	171.01	199.12	232.90	257.15	310.55	395.01	457.02	626.04	721.12	843.62	996.72	1,147.12
Post & Telecommunications ^[6]	yuan												
Cultural Events & Recreation ^[4]	yuan	312.71	374.95	448.98	499.39	567.05	627.82	690.00	902.28	934.38	1,032.80	1,097.46	1,203.03
Other Noncommercial ^[5]	yuan												

[1] Figures for 1985 and previous years are from sample surveys of urban staff and workers' households. Figures for later years include households of retired staff and workers, independent laborers, households of other professions, and those in county towns.

[2] Available income refers to total family income of family excluding support to family members living in other households, donations, and food expenditures by non-family members living in the household.

[3] This category was formerly termed "Items for daily use".

[4] Before 1995, the category "recreation, education, and cultural services" was termed "Items for recreation". Beginning in 1992, expenditures previously classified in "cultural events and recreation" were assigned to "Items for recreation" and "books, newspapers and magazines".

[5] Beginning in 1992, other noncommercial expenditures includes tuition and child care.

[6] beginning in 1992, "urban transportation" and "post and telecommunications" were combined in one category.

[7] Beginning in 1999 the category "fuels" includes water and electricity.

[8] Since 2000, the objects of urban households surveys are changed from non-farm households to households in the district areas of all city and county towns. The relative data are calculated according to the new standard, and historical data have been adjusted accordingly.

Source: NBS, Yearbook of China's Industrial Economy, 1990; NBS, China Statistical Yearbook, various years; EB, China Social Statistical Materials, NBS.

Figure 10C.1. Gross Output Value, 1952-1992

Figure 10C.2. Sectoral Shares of Gross Output Value, 1952-1992