State Energy Overview

October 1983

Energy Information Administration
Washington, D.C.

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Administrator's Message

The *State Energy Overview* is designed to further the Energy Information Administration's mission to disseminate timely and reliable energy statistics. Here the focus is at the State level of detail, presented against a background of national data. Such data have proved to be indispensable tools for decisionmakers, researchers, educators, and the public who need to understand various aspects of the energy picture. The *State Energy Overview* is a ready reference document that allows quick access to selected State energy information and State rankings for various socioeconomic variables. The scope of this publication is limited to major, nonrenewable fuels spanning the 1970-1982 time period. To provide the most current information, preliminary production and estimated consumption numbers for 1982 have been included for some fuels.

User participation in formulating plans for possible annual updates of the *State Energy Overview* is sincerely solicited. You are urged to transmit comments, and suggestions for improvement, and also to tell us what additional information would be helpful to you.

J. ERICH EVERED
Administrator
Energy Information Administration

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State Energy Overview

October 1983

Energy Information Administration
Office of Energy Markets
and End Use
U.S. Department of Energy
Washington, D.C. 20585

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The *State Energy Overview* is published to provide State-level energy information to decisionmakers in the Executive Branch, Congress, State governments, industry, and the general public. This overview presents production, consumption, reserves, and value of production data for the major nonrenewable energy fuels by State and for the United States. Also included are energy expenditures, fuel prices, and energy-related rankings for the individual States.

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Introduction

This publication presents an overview of selected energy-related data for the United States, for each State, and for the District of Columbia. Included are the quantities of energy produced and consumed, estimates of fuel reserves, the value of nonrenewable fuels produced by type, energy expenditures, and consumer prices. Also provided for each State are selected demographic and energy-related information that have been ranked and expressed as a percent of the national total. This overview provides a ready reference and a quick access to selected State energy information and State rankings for various socioeconomic and energy items.

Every effort has been made to provide consistent information. However, because of various nuances in meanings and the possibility of misinterpretation, users are urged to become familiar with the definitions in the Glossary of this publication prior to forming conclusions. For example, "petroleum production" refers to the production of crude oil, including lease condensate, whereas "petroleum consumption" refers to the consumption of refined petroleum products, including natural gas plant liquids.

Other points to aid users in understanding the data included in this publication are:

- Production, consumption, and reserve data do not include energy forms for which consistent historical series are not available, such as solar energy; wind energy; and geothermal, wood, biomass, and waste energy (other than the amounts consumed at electric utilities).
- All data relating to the production and consumption of energy at the national level are final except 1982 coal and natural gas data which are preliminary. At the State level, all data are final except 1982 coal production and consumption and 1982 natural gas production which are preliminary, and 1982 petroleum and natural gas consumption data which are estimated. Since 1981 is the latest year for which final data are available for all energy sources, rankings and State distributions are shown for that year.
- For energy expenditures, there are no purchased fuel prices for hydropower or geothermal power.

The *State Energy Overview* is arranged in five sections. The first section presents United States totals and an overview of State rankings. The second section depicts data for the 50 States and the District of Columbia. The Glossary presents definitions germane to this publication and the fourth section describes methodology and includes remarks concerning the information and methods used to estimate 1982 consumption numbers. The fifth section presents sources of data and information for this publication. A summary of each section follows.

Introduction

UNITED STATES SECTION

This section presents United States totals and rankings of States for selected items.

Energy-Related Information

Socioeconomic and energy-related information are presented on the first page. Included are population; area; heating and cooling degree-days; the number of operating coal mines; oil wells, gas wells, and electricity generating plants; income; employment; manufacturers' shipments; motor vehicle data; and per capita energy use in the major economic sectors.

Production and Consumption

The four charts appearing on the second page show U.S. production and consumption of coal, petroleum, natural gas, and electricity for the years 1980, 1981, and 1982. Data are in physical units, i.e. short tons, barrels, etc., and charts are scaled proportionally to represent approximately equal Btu content. The 1982 data for coal and natural gas are preliminary.

Ranking of States

The next eight charts show the 1981 State rankings (including the District of Columbia) for the production and consumption of coal, petroleum, natural gas, and electricity. States ranked 36 through 51 are listed in decreasing order.

Energy Expenditures and Price

Four charts provide energy expenditures and prices for purchased fuels and electricity sales for 1970 through 1980 and for selected years during this period. They include a chart on total energy expenditures incurred during each year for 1970 through 1980 by the four major end-use sectors (residential, commercial, industrial, and transportation) including the cost of electricity; a chart on 1980 prices in each of the four major end-use sectors for each fuel; and two charts on expenditures by fuel source for 1970, 1975, and 1980, (one excludes expenditures for fuels used in electricity generation but includes electricity sales, and the other excludes electricity sales to end-use sectors but includes expenditures for fuels purchased by electric utilities).

Introduction

Historical Energy Consumption

This group includes three charts that show a variety of consumption data for 1971, 1976, and 1981. Presented for each year is the share of total energy consumption and electric utility input provided by each fuel source and the share of total petroleum consumption provided by each major source of refined petroleum product.

Estimated Recoverable Reserves

Six charts provide summary data on energy reserves. The first chart depicts total U.S. reserves in Btu and permits comparisons among fuel types. The next four charts show reserves for each fuel (coal, crude oil and lease condensate, natural gas, and uranium) in physical units. Each identifies the quantity and the share of U.S. total within each major State. The final chart in this group compares 1981 production with reserves, and provides reserve-to-production ratios. Because there are differences in the meaning of "reserves" and different dates of measurement (estimation), users are urged to read the "reserve" definitions in the Glossary.

Value of Production

The summary chart in this group shows the 1981 production value of coal, crude oil, natural gas, and uranium for the United States. A separate chart for each of the four fuels shows production value and rankings at the State level. The last pages of the United States section contain pertinent notes.

STATE SECTION

This section consists of 51 subdivisions, one for each State and one for the District of Columbia. The first page of each subdivision lists 21 demographic, climatologic, economic, and energy related variables designed to depict that State's unique position and its relationship to other States by rank and percent of U.S. totals. The following pages of each State subdivision show the 1980, 1981, and 1982 production and consumption of coal, petroleum, natural gas, and electricity in the same format as that used for national totals in the United States section; energy expenditures and prices for purchased fuels and electricity for 1970 through 1980 and for selected years during this period; historical consumption data for 1971, 1976, and 1981; reserves and 1981 production value of coal, crude oil, natural gas, and uranium; and the total consumption of all energy. The last page of each State subdivision shows that State's ranking in the production, consumption, production value, reserves, ex-

Introduction

penditures, and prices for each fuel. Also included are State-specific energy facts which underlie the aggregate data and which may be of interest to the user.

GLOSSARY

Products and terms are defined or explained in this section.

METHODOLOGY SECTION

This section presents remarks concerning the information and methods used to develop estimates throughout the *State Energy Overview*.

DATA SOURCES SECTION

This final section identifies sources of information presented in this overview. This section is a guide to sources that present more detailed information than is shown in the *State Energy Overview*. For example, EIA's *State Energy Data Report* presents a 22-year history of energy consumption at the State level by major economic sectors and by energy sources.

STATE ABBREVIATIONS

Throughout the *State Energy Overview* the term "States" refers to the 50 States plus the District of Columbia. The abbreviations used are:

AL	Alabama	IL	Illinois	MT	Montana	RI	Rhode Island
AK	Alaska	IN	Indiana	NE	Nebraska	SC	South Carolina
AZ	Arizona	IA	Iowa	NV	Nevada	SD	South Dakota
AR	Arkansas	KS	Kansas	NH	New Hampshire	TN	Tennessee
CA	California	KY	Kentucky	NJ	New Jersey	TX	Texas
CO	Colorado	LA	Louisiana	NM	New Mexico	UT	Utah
CT	Connecticut	ME	Maine	NY	New York	VT	Vermont
DE	Delaware	MD	Maryland	NC	North Carolina	VA	Virginia
DC	Dist. of Columbia	MA	Massachusetts	ND	North Dakota	WA	Washington
FL	Florida	MI	Michigan	OH	Ohio	WV	West Virginia
GA	Georgia	MN	Minnesota	OK	Oklahoma	WI	Wisconsin
HI	Hawaii	MS	Mississippi	OR	Oregon	WY	Wyoming
ID	Idaho	MO	Missouri	PA	Pennsylvania	US	United States

United States

Population, 1981 (thousands).....	229,348
Area (square miles).....	3,618,770
Normal Heating Degree-Days, 1951-1980.....	4,694
Normal Cooling Degree-Days, 1951-1980.....	1,173
Operating Coal Mines, 1981.....	5,808
Operating Oil Wells, 1981.....	552,473
Operating Natural Gas Wells, 1981.....	198,839
Operable Electrical Generating Plants, 1981.....	3,064
Per Capita Energy Use, 1981 (million Btu)	
Residential.....	64
Commercial.....	46
Industrial.....	128
Transportation.....	85
Total.....	323
Personal Income, 1981 (millions).....	\$2,406,545
Per Capita Personal Income, 1981.....	\$ 10,493
Nonagricultural Employment, 1981 (thousands)...	91,557
Manufacturing Employment, 1981 (thousands)...	20,216
Shipments by Manufacturers, 1981 (millions).....	\$2,017,543
Motor Vehicle Registrations, 1981 (thousands)....	164,288
Licensed Drivers, 1981 (thousands).....	147,075
Vehicle Miles of Highway Travel, 1981 (millions) ..	1,550,271

Energy Production and Consumption Overview—United States

Note: Charts are scaled to represent approximately equal Btu content.

1981 Coal Production and Consumption Ranking by States

1981 Petroleum Production and Consumption Ranking By States

1981 Natural Gas Production and Consumption Ranking by States

1981 Electricity Production and Consumption Ranking by States

Expenditures for Energy and Energy Prices—United States

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—United States

Expenditures, Excluding Fuel Costs for Electricity Generation¹

Expenditures, Including Fuel Costs for Electricity Generation²

¹Also excludes net imports of coal coke.

²Except nuclear power and wood and waste expenditures for electricity generation. Also excludes net imports of coal coke.

Energy Consumption by Source—United States

1971 A total of 68,299.7 trillion Btu of energy were consumed in 1971.

1976 A total of 74,509.3 trillion Btu of energy were consumed in 1976.

1981 A total of 74,013.9 trillion Btu of energy were consumed in 1981.

¹Includes small amounts of electricity produced at utilities from wood and waste and net imports of coal coke in all years shown.

²Includes small amounts of electricity produced at utilities from geothermal sources in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source—United States

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

¹Includes wood and waste which accounted for less than 0.5 percent of total in all years shown.

²Includes geothermal which accounted for less than 0.5 percent of total in all years shown.

Estimated Recoverable Reserves* —United States Quadrillion Btu

U.S. Total: 5,661 Quadrillion Btu

*Coal is 50 percent of the "Demonstrated Reserve Base" as of January 1, 1980.
Crude Oil (including Lease Condensate) and Natural Gas are "Proved Reserves" as of December 31, 1981.
Uranium is based on the amount of recoverable U_3O_8 at \$30 per pound as of January 1, 1982.
Natural gas proved reserves are the estimates for wet gas after lease separation.

United States Coal Reserves, 1980

Demonstrated Reserve Base
(Million Short Tons)

U.S. Total: 472,714 Million Short Tons

United States Crude Oil and Lease Condensate Reserves, 1981

U.S. Total: 31,006 Million Barrels

United States Natural Gas Reserves,* 1981

U.S. Total: 209,434 Billion Cubic Feet

*Natural gas proved reserves are the estimates for wet gas after lease separation.

United States Uranium (U_3O_8) Reserves, 1981

Recoverable U_3O_8 at \$30 Per Pound
(Thousand Short Tons)

U.S. Total: 205 Thousand Short Tons

Reserve*/Production Ratio for Nonrenewable Fuels— United States, 1981

*Coal reserve is 50 percent of the "Demonstrated Reserve Base" as of January 1, 1980.
 Crude Oil (including Lease Condensate) and Natural Gas are "Proved Reserves" as of December 31, 1981.
 Uranium is the amount of recoverable U_3O_8 at \$30 per pound as of January 1, 1982.
 Natural gas proved reserves are the estimates for wet gas after lease separation.

Value of Production of Nonrenewable Fuels—United States, 1981

Value at Wellhead or Mine-Mouth
(Billion Dollars)

U.S. Total: \$162.8 Billion

¹Including Lease Condensate.

Value of Production, 1981 Coal¹

Million Dollars

¹Excludes the output of mines which produced less than 10,000 short tons of coal during 1981. The total output of such mines accounted for approximately 1 percent of total production.

²Value withheld to avoid disclosure of individual company data. Not necessarily ranked in descending order.

Value of Production, 1981 Crude Oil and Lease Condensate

Value of Production, 1981 Natural Gas¹

Million Dollars

¹Excludes nonhydrocarbon gases. Value derived prior to the extraction of natural gas plant liquids.

²Arizona not available. Production of natural gas in Arizona was less than 0.001 percent of U.S. total.

Value of Production, 1981 Uranium (U_3O_8)

Million Dollars

*Data for these States withheld to avoid disclosure of individual company data. States are listed in alphabetical order.

United States

Coal Production

- Twenty-six States contributed to the total 1981 production of 824 million short tons of coal. The four leading States (Kentucky, West Virginia, Wyoming, and Pennsylvania) accounted for 55 percent of the total.
- Over 61 percent of the coal produced in 1981 was from surface mines in 25 States. Underground mining was conducted in only 16 States.
- Five percent (299) of the 5,808 mines operated in 1981 produced more than 500,000 short tons of coal each, and accounted for 57 percent of the Nation's total output.
- The average production of coal per miner per hour during 1981 was 2.10 short tons, 8.8 percent above the 1980 average of 1.93 short tons.

Petroleum Production

- Thirty-one States contributed to the total 1981 production of 3,129 million barrels of crude oil and lease condensate. The four leading States (Texas, Alaska, Louisiana, and California) accounted for over 76 percent of the total.
- The total of 552,473 producing oil wells on December 31, 1981, was 2 percent higher than the number of producing oil wells a year earlier.
- The average production per well per day dropped from 15.9 barrels in 1980 to 15.4 barrels in 1981.

Natural Gas Production

- Thirty-one States reported natural gas production in 1981. Texas and Louisiana accounted for 69 percent of the Nation's total production of 20.18 trillion cubic feet.
- The 198,839 producing gas wells on December 31, 1981, was 9 percent higher than the number of producing gas wells a year earlier.

Electricity Generation

- Every State contributed to the 1981 total of 2,295 billion kilowatt-hours of electricity generation. The four leading States (Texas, California, Pennsylvania, and Ohio) accounted for 25 percent of the total.
- In 1982, 12.6 percent of electricity generation was from nuclear fuel, an all-time high.
- During 1982, fossil fuels were used to generate electricity in every State; 47 States utilized hydropower; 27 States utilized nuclear fuel; and one State, California, generated commercial electricity from geothermal power.
- During 1982, the share of total electricity generated from petroleum fell to 6.5 percent, the lowest share since 1965.

United States

Coal Consumption

- All States except Hawaii consumed coal during 1981. The four leading States (Ohio, Pennsylvania, Texas, and Indiana) consumed 32 percent of the total 733 million short tons.
- Electric utilities consumed 81 percent (597 million short tons) of the total coal consumed in 1981.

Petroleum Consumption

- The 1982 petroleum consumption of 5,583 million barrels was 5 percent less than 1981 consumption, and marked the fourth consecutive year of decline.
- The four leading petroleum consuming States in 1981 were Texas, California, New York, and Florida. They accounted for 32 percent of the national total.
- The transportation sector (at 59 percent) and the industrial sector (at 27 percent) together accounted for 86 percent of total 1981 consumption. The remaining petroleum was consumed by residential and commercial users and electric utilities.

Natural Gas Consumption

- The estimated 1982 natural gas consumption of 17.87 trillion cubic feet was 8 percent less than 1981 consumption, and marked the third consecutive year of decline.
- The leading natural gas consuming States in 1981 were Texas, California, Louisiana, and Illinois. They accounted for 44 percent of the national total.
- Consumption by industrial users (at 42 percent) and in residences (23 percent) accounted for 65 percent of total 1981 consumption. The remaining natural gas was consumed by utilities, commercial users, and the transportation sector (pipeline fuel).

Electricity Consumption

- Electricity consumption fell 3 percent from 1981 to 1982, the first decline since 1974 and only the second annual decline in the post-World War II period.
- Consumption by industrial users (38 percent) and in residences (34 percent) accounted for 72 percent of the 1981 consumption of 2,146 billion kilowatt-hours. The commercial sector consumed 28 percent, and transportation accounted for less than 0.5 percent.

United States

Nonrenewable Fuel Reserves

- Over 50 percent of the 473-billion-short-ton coal demonstrated reserve base is in three States: Montana (25 percent), Wyoming (15 percent), and Illinois (14 percent).
- Two States, Texas (27 percent) and Alaska (27 percent), accounted for 54 percent of the Nation's 1981 crude oil and lease condensate proved reserves of 31,006 million barrels.
- Nearly one-half of the Nation's 1981 proved natural gas reserve was in two States: Texas (26 percent) and Louisiana (23 percent).
- Over four-fifths of the Nation's 1981 uranium reserve was in two States: New Mexico (55 percent) and Wyoming (26 percent).

Alabama

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	3,920	22	1.71
Area (square miles)	51,705	29	1.43
Normal Heating Degree-Days, 1951-1980	2,828	41	—
Normal Cooling Degree-Days, 1951-1980	1,921	7	—
Operating Coal Mines, 1981	237	6	4.08
Operating Oil Wells, 1981	692	24	0.13
Operating Natural Gas Wells, 1981	385	19	0.19
Operable Electrical Generating Plants, 1981	34	34	1.11
Per Capita Energy Use, 1981 (million Btu)			
Residential	63	32	—
Commercial	36	45	—
Industrial	190	8	—
Transportation	87	23	—
Total	376	13	—
Personal Income, 1981 (millions)	\$32,189	24	1.34
Per Capita Personal Income, 1981	\$ 8,211	48	—
Nonagricultural Employment, 1981 (thousands) ...	1,348	23	1.47
Manufacturing Employment, 1981 (thousands) ...	362	21	1.79
Shipments by Manufacturers, 1981 (millions)	\$30,509	22	1.51
Motor Vehicle Registrations, 1981 (thousands)	3,085	20	1.88
Licensed Drivers, 1981 (thousands)	2,316	22	1.57
Vehicle Miles of Highway Travel, 1981 (millions) ..	27,852	22	1.80

Energy Production and Consumption—Alabama

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Alabama

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Alabama

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Alabama

- 1971 1,413.4 trillion Btu. Excludes 58.0 trillion Btu of net interstate shipments of electricity.
- 1976 1,577.7 trillion Btu. Excludes 50.9 trillion Btu of net interstate shipments of electricity.
- 1981 1,692.1 trillion Btu. Excludes 216.8 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source—Alabama

Energy Inputs at Electric Utilities

Petroleum Consumption By Product Source

*Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

¹Including lease condensate.

Alabama

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	11	17	15	10
Consumption, 1981	10	22	17	16
Value of Production, 1981	8	17	12	NA
Reserves, 1981 ¹	15	12	18	—
Energy Expenditures, 1980	8	23	19	16
Residential Prices, 1980	25	12	19	29

NA-Not available.

¹Coal reserves for 1980.

Notes

- This State ranked second (behind Illinois) in the amount of electricity generated by nuclear power during 1981. The 23.6 billion kilowatt-hours generated by nuclear power in Alabama was 9 percent of the U.S. total nuclear electricity generation.
- Alabama ranked eighth in hydroelectric generation in 1981.
- Wellhead value for natural gas averaged \$4.77 per thousand cubic feet during 1981. This was the highest State average in the United States.
- Alabama ranked 17th in total energy consumption during 1981.
- Alabama ranked 18th in total energy expenditures during 1980.

Alaska

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	416	51	0.18
Area (square miles)	591,004	1	16.33
Normal Heating Degree-Days, 1951-1980	NA	NA	—
Normal Cooling Degree-Days, 1951-1980	NA	NA	—
Operating Coal Mines, 1981	1	26	0.02
Operating Oil Wells, 1981	700	23	0.13
Operating Natural Gas Wells, 1981	79	23	0.04
Operable Electrical Generating Plants, 1981	93	10	3.04
Per Capita Energy Use, 1981 (million Btu)			
Residential	80	2	—
Commercial	77	2	—
Industrial	262	4	—
Transportation	243	1	—
Total	662	3	—
Personal Income, 1981 (millions)	\$ 5,661	50	0.24
Per Capita Personal Income, 1981	\$13,607	1	—
Nonagricultural Employment, 1981 (thousands) ...	184	51	0.20
Manufacturing Employment, 1981 (thousands) ...	13	50	0.06
Shipments by Manufacturers, 1981 (millions)	\$ 1,954	49	0.10
Motor Vehicle Registrations, 1981 (thousands)	298	50	0.18
Licensed Drivers, 1981 (thousands)	228	51	0.16
Vehicle Miles of Highway Travel, 1981 (millions) ..	2,911	51	0.19

NA — Not available.

Energy Production and Consumption—Alaska

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Alaska

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Alaska

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Alaska

Energy Inputs at Utilities and Petroleum Consumption by Source—Alaska

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Alaska

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	23	2	8	49
Consumption, 1981	45	44	35	51
Value of Production, 1981	W	3	16	NA
Reserves, 1981 ¹	13	2	3	—
Energy Expenditures, 1980	44	46	45	51
Residential Prices, 1980	None	41	50	33

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- More than two-thirds of Alaska's generation of electricity was produced by gas turbine and internal combustion units in 1981.
- Of the major natural gas producers, Alaska's wellhead price was the lowest at \$0.62 per thousand cubic feet.
- The total value at wells of crude petroleum production of \$14.09 billion during 1981 ranked third and accounted for 14 percent of the U.S. total.
- The average crude petroleum production per well per day of 2,299 barrels during 1981 was the highest average in the United States. Average wellhead price was \$23.92 per barrel, lowest in the Nation.
- Alaska ranked 43rd in total energy consumption during 1981.
- Alaska ranked 49th in total energy expenditures in 1980.

Arizona

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		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	2,791	29	1.22
Area (square miles).....	114,000	6	3.15
Normal Heating Degree-Days, 1951-1980.....	2,313	46	—
Normal Cooling Degree-Days, 1951-1980.....	2,606	3	—
Operating Coal Mines, 1981.....	5	23	0.09
Operating Oil Wells, 1981.....	35	29	0.01
Operating Natural Gas Wells, 1981.....	1	30	*
Operable Electrical Generating Plants, 1981.....	29	40	0.95
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	50	47	—
Commercial.....	49	20	—
Industrial.....	89	36	—
Transportation.....	96	16	—
Total.....	283	31	—
Personal Income, 1981 (millions).....	\$27,286	28	1.13
Per Capita Personal Income, 1981.....	\$ 9,776	32	—
Nonagricultural Employment, 1981 (thousands)...	1,041	29	1.14
Manufacturing Employment, 1981 (thousands)...	161	33	0.80
Shipments by Manufacturers, 1981 (millions)	\$12,484	34	0.62
Motor Vehicle Registrations, 1981 (thousands)....	2,200	27	1.34
Licensed Drivers, 1981 (thousands).....	2,020	27	1.37
Vehicle Miles of Highway Travel, 1981 (millions) ..	18,570	30	1.20

*Represents small, non-zero value.

Energy Production and Consumption—Arizona

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Arizona

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Arizona

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Arizona

- 1971 532.6 trillion Btu. Excludes 27.1 trillion Btu of net interstate receipts of electricity.
- 1976 721.0 trillion Btu. Excludes 17.5 trillion Btu of net interstate shipments of electricity.
- 1981 887.4 trillion Btu. Excludes 96.2 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source—Arizona

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

* Represents, small, non-zero value.

¹ Including lease condensate.

Arizona

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	16	29	29	21
Consumption, 1981	16	33	27	27
Value of Production, 1981	W	30	NA	NA
Reserves, 1981 ¹	25	W	W	—
Energy Expenditures, 1980	23	33	32	22
Residential Prices, 1980	None	5	20	10

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Arizona ranked seventh nationally in hydroelectricity generation during 1981.
- Arizona is one of the nine States that produced uranium in 1981.
- All 1981 coal production in this State was from surface mines.
- Pipeline fuel accounted for 13 percent of natural gas consumption in 1981.
- Energy consumption in 1981 was higher than the 1980 level in seven States. Arizona, with a 3.1 percent increase, ranked fourth.
- Arizona ranked 32nd in total energy consumption during 1981.
- Arizona ranked 31st in total energy expenditures during 1980.

Arkansas

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	2,293	33	1.00
Area (square miles).....	53,187	27	1.47
Normal Heating Degree-Days, 1951-1980.....	3,327	40	—
Normal Cooling Degree-Days, 1951-1980.....	1,861	8	—
Operating Coal Mines, 1981.....	12	21	0.21
Operating Oil Wells, 1981.....	8,249	13	1.49
Operating Natural Gas Wells, 1981.....	1,600	13	0.80
Operable Electrical Generating Plants, 1981.....	34	34	1.11
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	64	29	—
Commercial.....	39	39	—
Industrial.....	156	15	—
Transportation.....	91	19	—
Total.....	350	18	—
Personal Income, 1981 (millions).....	\$18,460	33	0.77
Per Capita Personal Income, 1981.....	\$ 8,051	49	—
Nonagricultural Employment, 1981 (thousands)...	740	33	0.81
Manufacturing Employment, 1981 (thousands)...	210	28	1.04
Shipments by Manufacturers, 1981 (millions).....	\$18,510	31	0.92
Motor Vehicle Registrations, 1981 (thousands)....	1,691	32	1.03
Licensed Drivers, 1981 (thousands).....	1,532	33	1.04
Vehicle Miles of Highway Travel, 1981 (millions) ..	16,770	33	1.08

Energy Production and Consumption—Arkansas

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Arkansas

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Arkansas

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Arkansas

1971 631.2 trillion Btu. Excludes 41.3 trillion Btu of net interstate receipts of electricity.

1976 723.7 trillion Btu. Excludes 105.0 trillion Btu of net interstate receipts of electricity.

1981 802.5 trillion Btu. Excludes 0.6 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source—Arkansas

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

Crude Oil¹
Proved Reserves

Natural Gas
Proved Reserves

Uranium (U₃O₈)
Reserves

Production Value

Coal
Mine-Mouth

Crude Oil
Wellhead

Natural Gas
Wellhead

Uranium (U₃O₈)
Mine-Mouth

Total Energy Consumption

Percent of U.S. Total

¹Including lease condensate.

Arkansas

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	25	18	16	31
Consumption, 1981	30	32	19	31
Value of Production, 1981	22	18	15	NA
Reserves, 1981 ¹	24	17	13	—
Energy Expenditures, 1980	36	32	23	28
Residential Prices, 1980	27	3	47	29

NA-Not available.

¹Coal reserves for 1980.

Notes

- About 36 percent of the electricity generated in 1981 was from nuclear powered facilities.
- The average mine price of \$37.51 per short ton for coal mined in Arkansas was the third highest average during 1981.
- Average coal production per miner per day was 11.73 short tons, second lowest in the Nation in 1981.
- Arkansas ranked 30th in total energy consumption during 1981.
- Arkansas ranked 32nd in total energy expenditures during 1980.

California

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	24,212	1	10.56
Area (square miles).....	158,706	3	4.39
Normal Heating Degree-Days, 1951-1980.....	2,703	44	—
Normal Cooling Degree-Days, 1951-1980.....	779	29	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	47,362	3	8.57
Operating Natural Gas Wells, 1981.....	1,110	15	0.56
Operable Electrical Generating Plants, 1981.....	230	1	7.51
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	46	48	—
Commercial.....	47	23	—
Industrial.....	67	44	—
Transportation.....	97	14	—
Total.....	257	42	—
Personal Income, 1981 (millions).....	\$289,584	1	12.03
Per Capita Personal Income, 1981.....	\$ 11,960	5	—
Nonagricultural Employment, 1981 (thousands)...	9,996	1	10.92
Manufacturing Employment, 1981 (thousands)...	2,023	1	10.01
Shipments by Manufacturers, 1981 (millions).....	\$192,365	1	9.53
Motor Vehicle Registrations, 1981 (thousands)...	17,530	1	10.67
Licensed Drivers, 1981 (thousands).....	16,046	1	10.91
Vehicle Miles of Highway Travel, 1981 (millions) ..	159,900	1	10.31

Energy Production and Consumption—California

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—California

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—California

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—California

1971 5,300.3 trillion Btu. Excludes 215.0 trillion Btu of net interstate receipts of electricity.

1976 5,391.6 trillion Btu. Excludes 527.5 trillion Btu of net interstate receipts of electricity.

1981 5,684.4 trillion Btu. Excludes 527.6 trillion Btu of net interstate receipts of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in all years shown.

²Includes small amounts of electricity produced at utilities from geothermal sources in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source—California

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹No coal was consumed. Small quantities of wood and waste were used in all years shown.

²Includes geothermal power which generated 1%, 6% and 9% of California's electricity in 1971, 1976 and 1981, respectively.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

California

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	4	7	2
Consumption, 1981	36	2	2	2
Value of Production, 1981	—	4	6	NA
Reserves, 1981 ¹	None	3	8	—
Energy Expenditures, 1980	27	2	2	1
Residential Prices, 1980	14	9	30	13

NA-Not available.

¹Coal reserves for 1980.

Notes

- In 1981, California ranked second in the use of natural gas to generate electricity, third in the use of hydropower to generate electricity, and third in the use of petroleum to generate electricity. Approximately 23 percent of California's electricity generation was with hydropower.
- California was the only State to use geothermal power to generate electricity in 1981. In that year 4 percent of California's total electricity generation was by geothermal power.
- Wellhead value of crude petroleum averaged \$26.72 per barrel in 1981. The only lower averages were Alaska and Nevada.
- California ranked second in total energy consumption during 1981.
- California ranked second in total energy expenditures in 1980.

Colorado

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	2,976	27	1.30
Area (square miles)	104,091	8	2.88
Normal Heating Degree-Days, 1951-1980	7,123	10	—
Normal Cooling Degree-Days, 1951-1980	318	42	—
Operating Coal Mines, 1981	87	11	1.50
Operating Oil Wells, 1981	2,898	19	0.52
Operating Natural Gas Wells, 1981	3,543	10	1.78
Operable Electrical Generating Plants, 1981	62	17	2.02
Per Capita Energy Use, 1981 (million Btu)			
Residential	62	33	—
Commercial	55	10	—
Industrial	83	38	—
Transportation	84	26	—
Total	283	32	—
Personal Income, 1981 (millions)	\$33,257	23	1.38
Per Capita Personal Income, 1981	\$11,175	12	—
Nonagricultural Employment, 1981 (thousands) ...	1,295	24	1.41
Manufacturing Employment, 1981 (thousands) ...	186	32	0.92
Shipments by Manufacturers, 1981 (millions)	\$17,213	32	0.85
Motor Vehicle Registrations, 1981 (thousands)	2,601	25	1.58
Licensed Drivers, 1981 (thousands)	2,104	26	1.43
Vehicle Miles of Highway Travel, 1981 (millions) ..	22,337	26	1.44

Energy Production and Consumption—Colorado

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Colorado

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Colorado

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Colorado

1971 729.4 trillion Btu. Excludes 11.8 trillion Btu of net interstate shipments of electricity.

1976 881.6 trillion Btu. Excludes 11.5 trillion Btu of net interstate shipments of electricity.

1981 844.7 trillion Btu. Excludes 1.2 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source—Colorado

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

W:Withheld to avoid disclosure
of individual company data.

¹Including lease condensate.

Colorado

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	12	14	10	30
Consumption, 1981	18	31	23	29
Value of Production, 1981	10	14	11	NA
Reserves, 1981 ¹	8	15	9	—
Energy Expenditures, 1980	22	31	18	33
Residential Prices, 1980	26	27	33	28

NA-Not available.

¹Coal reserves for 1980.

Notes

- Of the nine States with uranium reserves, Colorado ranked third in 1981.
- About one of every three tons of coal produced during 1981 was from underground mines.
- One of seven States whose average heating content of natural gas consumed was less than 1,000 Btu per cubic foot in 1981.
- One of only nine States reporting uranium production during 1981.
- Colorado ranked 29th in total energy consumption during 1981.
- Colorado ranked 29th in total energy expenditures in 1980.

Connecticut

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	3,136	25	1.37
Area (square miles).....	5,018	48	0.14
Normal Heating Degree-Days, 1951-1980.....	6,146	18	—
Normal Cooling Degree-Days, 1951-1980.....	515	36	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	38	30	1.24
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	68	23	—
Commercial.....	43	29	—
Industrial.....	49	49	—
Transportation.....	58	48	—
Total.....	217	46	—
Personal Income, 1981 (millions).....	\$40,131	21	1.67
Per Capita Personal Income, 1981.....	\$12,797	3	—
Nonagricultural Employment, 1981 (thousands)...	1,439	22	1.57
Manufacturing Employment, 1981 (thousands)...	439	16	2.17
Shipments by Manufacturers, 1981 (millions).....	\$30,027	24	1.49
Motor Vehicle Registrations, 1981 (thousands)...	2,180	28	1.33
Licensed Drivers, 1981 (thousands).....	2,198	23	1.49
Vehicle Miles of Highway Travel, 1981 (millions) ..	19,366	28	1.25

Energy Production and Consumption—Connecticut

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy and Energy Prices—Connecticut

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Connecticut

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Connecticut

1971 771.4 trillion Btu. Excludes 64.4 trillion Btu of net interstate shipments of electricity.

1976 811.3 trillion Btu. Excludes 40.0 trillion Btu of net interstate shipments of electricity.

1981 679.1 trillion Btu. Excludes 2.5 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source—Connecticut

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Connecticut

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	33
Consumption, 1981	49	25	37	32
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	50	25	36	23
Residential Prices, 1980	43	33	3	6

NA-Not available.

¹Coal reserves for 1980.

Notes

- Connecticut was one of 15 States that produced no fuel in 1981.
- One of the smallest users of energy on a per-capita basis, Connecticut ranked 46th in 1981.
- More than 53 percent of Connecticut's electricity was generated from nuclear-fired powerplants in 1981, the third highest percentage in the Nation.
- Connecticut ranked 34th in total energy consumption during 1981.
- Connecticut ranked 27th in total energy expenditures during 1980.

Delaware

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	597	48	0.26
Area (square miles).....	2,044	49	0.06
Normal Heating Degree-Days, 1951-1980.....	4,784	32	—
Normal Cooling Degree-Days, 1951-1980.....	1,026	19	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	10	49	0.33
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	55	44	—
Commercial.....	62	6	—
Industrial.....	118	23	—
Transportation.....	86	25	—
Total.....	321	22	—
Personal Income, 1981 (millions).....	\$ 6,643	47	0.28
Per Capita Personal Income, 1981.....	\$11,128	13	—
Nonagricultural Employment, 1981 (thousands)...	259	46	0.28
Manufacturing Employment, 1981 (thousands)...	71	40	0.35
Shipments by Manufacturers, 1981 (millions).....	\$ 9,050	38	0.45
Motor Vehicle Registrations, 1981 (thousands)....	416	48	0.25
Licensed Drivers, 1981 (thousands).....	429	46	0.29
Vehicle Miles of Highway Travel, 1981 (millions) ..	4,458	48	0.29

Energy Production and Consumption—Delaware

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Delaware

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Delaware

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Delaware

- 1971 207.3 trillion Btu. Excludes 3.0 trillion Btu of net interstate shipments of electricity.
- 1976 216.3 trillion Btu. Excludes 5.4 trillion Btu of net interstate shipments of electricity.
- 1981 218.7 trillion Btu. Excludes 27.1 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source—Delaware

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U_3O_8) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U_3O_8) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

¹Including lease condensate.

Delaware

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	44
Consumption, 1981	39	45	44	47
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	39	43	44	44
Residential Prices, 1980	7	18	16	8

NA-Not available.

¹Coal reserves for 1980.

Notes

- Delaware was one of 15 States that produced no fuel in 1981.
- Delaware's consumption of energy between 1980 and 1981 decreased by 19.8 percent. This was the largest decrease in the Nation.
- Over one-half (56 percent) of the electricity generation in Delaware during 1981 was by coal-fired plants.
- Delaware ranked 47th in total energy consumption during 1981.
- Delaware ranked 44th in total energy expenditures during 1980.

District of Columbia

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	633	47	0.28
Area (square miles).....	69	51	*
Normal Heating Degree-Days, 1951-1980.....	4,811	30	—
Normal Cooling Degree-Days, 1951-1980.....	1,012	20	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	2	51	0.07
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	46	49	—
Commercial.....	77	1	—
Industrial.....	70	43	—
Transportation.....	44	51	—
Total.....	237	45	—
Personal Income, 1981 (millions).....	\$ 8,523	44	0.35
Per Capita Personal Income, 1981.....	\$13,464	2	—
Nonagricultural Employment, 1981 (thousands)...	611	36	0.67
Manufacturing Employment, 1981 (thousands)...	15	49	0.07
Shipments by Manufacturers, 1981 (millions).....	\$ 1,346	51	0.07
Motor Vehicle Registrations, 1981 (thousands)....	279	51	0.17
Licensed Drivers, 1981 (thousands).....	343	50	0.23
Vehicle Miles of Highway Travel, 1981 (millions) ..	3,308	50	0.21

* Represents small, non-zero value.

Energy Production and Consumption—District of Columbia

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices— District of Columbia

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—District of Columbia

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—District of Columbia

1971 174.9 trillion Btu. Excludes 35.0 trillion Btu of net interstate receipts of electricity.

1976 114.1 trillion Btu. Excludes 53.0 trillion Btu of net interstate receipts of electricity.

1981 74.5 trillion Btu. Excludes 75.5 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source—District of Columbia

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

Crude Oil¹ Proved Reserves

Natural Gas Proved Reserves

Uranium (U₃O₈) Reserves

Production Value

Coal Mine-Mouth

Crude Oil Wellhead

Natural Gas Wellhead

Uranium (U₃O₈) Mine-Mouth

Total Energy Consumption

Percent of U.S. Total

¹Including lease condensate.

District of Columbia

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	51
Consumption, 1981	47	51	46	43
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	45	51	43	42
Residential Prices, 1980	7	20	13	43

NA-Not available.

¹Coal reserves for 1980.

Notes

- The District of Columbia was one of 15 States that produced no fuel in 1981.
- Only the District of Columbia and Rhode Island used less petroleum in 1981 than they did in 1960.
- During 1981 the transportation sector's energy use per person in the District of Columbia was the lowest in the Nation.
- Heating degree-days and cooling degree-days for the District of Columbia are the National Oceanic and Atmospheric Administration's average for Maryland.
- All electricity generated in the District of Columbia in 1981 was from petroleum-fired powerplants.
- The District of Columbia ranked 50th in total energy consumption during 1981.
- The District of Columbia ranked 50th in total energy expenditures during 1980.

Florida

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	10,147	7	4.42
Area (square miles).....	58,664	22	1.62
Normal Heating Degree-Days, 1951-1980.....	720	49	—
Normal Cooling Degree-Days, 1951-1980.....	3,348	1	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	117	28	0.02
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	65	16	2.12
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	57	43	—
Commercial.....	41	33	—
Industrial.....	52	46	—
Transportation.....	94	17	—
Total.....	244	43	—
Personal Income, 1981 (millions).....	\$103,502	7	4.30
Per Capita Personal Income, 1981.....	\$ 10,200	27	—
Nonagricultural Employment, 1981 (thousands)....	3,737	7	4.08
Manufacturing Employment, 1981 (thousands)....	472	15	2.33
Shipments by Manufacturers, 1981 (millions).....	\$ 36,799	17	1.82
Motor Vehicle Registrations, 1981 (thousands)....	8,194	4	4.99
Licensed Drivers, 1981 (thousands).....	7,641	4	5.20
Vehicle Miles of Highway Travel, 1981 (millions) ..	76,145	4	4.91

Energy Production and Consumption—Florida

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—Florida

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Florida

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Florida

1971 1,679.5 trillion Btu. Excludes 7.9 trillion Btu of net interstate shipments of electricity.

1976 2,067.1 trillion Btu. Excludes 7.6 trillion Btu of net interstate shipments of electricity.

1981 2,449.5 trillion Btu. Excludes 29.0 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source—Florida

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Florida

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	10	21	7
Consumption, 1981	26	4	13	7
Value of Production, 1981	—	10	19	NA
Reserves, 1981 ¹	None	19	22	—
Energy Expenditures, 1980	19	5	21	6
Residential Prices, 1980	10	2	11	18

NA-Not available.

¹Coal reserves for 1980.

Notes

- Total energy consumption from 1960 to 1981 grew 204 percent. This was the third highest growth in the Nation.
- The average crude petroleum production per well per day of 814 barrels during 1981 was the second highest average in the United States. (Alaska was first.)
- Florida was the leading consumer of petroleum for producing electricity during 1981.
- Small quantities of uranium were produced as a by-product of other mining (usually nitrate) despite the absence of quantifiable uranium reserves.
- Florida ranked ninth in total energy consumption during 1981.
- Florida ranked seventh in total energy expenditures during 1980.

Georgia

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	5,565	12	2.43
Area (square miles).....	58,910	21	1.63
Normal Heating Degree-Days, 1951-1980.....	2,788	42	—
Normal Cooling Degree-Days, 1951-1980.....	1,780	10	—
Operating Coal Mines, 1981.....	2	25	0.03
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	46	25	1.50
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	61	35	—
Commercial.....	39	36	—
Industrial.....	96	32	—
Transportation.....	97	13	—
Total.....	294	29	—
Personal Income, 1981 (millions).....	\$49,803	14	2.07
Per Capita Personal Income, 1981.....	\$ 8,949	38	—
Nonagricultural Employment, 1981 (thousands)...	2,199	12	2.40
Manufacturing Employment, 1981 (thousands)...	525	13	2.60
Shipments by Manufacturers, 1981 (millions).....	\$47,246	14	2.34
Motor Vehicle Registrations, 1981 (thousands)....	3,965	12	2.41
Licensed Drivers, 1981 (thousands).....	3,518	13	2.39
Vehicle Miles of Highway Travel, 1981 (millions) ..	44,843	10	2.89

Energy Production and Consumption—Georgia

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy by Source—Georgia

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Expenditures for Energy and Energy Prices—Georgia

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Georgia

- 1971 1,246.1 trillion Btu. Excludes 71.7 trillion Btu of net interstate receipts of electricity.
- 1976 1,479.0 trillion Btu. Excludes 30.6 trillion Btu of net interstate receipts of electricity.
- 1981 1,665.1 trillion Btu. Excludes 31.7 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source—Georgia

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

*Represents small, non-zero value.

¹Including lease condensate.

Georgia

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	26	None	None	14
Consumption, 1981	13	13	15	14
Value of Production, 1981	26	—	—	NA
Reserves, 1981 ¹	31	None	None	—
Energy Expenditures, 1980	10	13	14	15
Residential Prices, 1980	22	14	26	32

NA-Not available.

¹Coal reserves for 1980.

Notes

- Georgia's coal production was from mines producing less than 10,000 short tons and therefore is excluded from the Value of Production chart in the United States section.
- In descending order of coal production, Georgia ranked 26th and was the smallest producer during 1981.
- All 1981 coal production in this State was from surface mines.
- This State had a 150-percent increase in energy consumption from 1960 to 1981. This was the seventh largest increase for any State.
- Georgia ranked 14th in total energy consumption during 1981.
- Georgia ranked 12th in total energy expenditures during 1980.

Hawaii

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	979	39	0.43
Area (square miles)	6,471	47	0.18
Normal Heating Degree-Days, 1951-1980	NA	NA	—
Normal Cooling Degree-Days, 1951-1980	NA	NA	—
Operating Coal Mines, 1981	0	—	0
Operating Oil Wells, 1981	0	—	0
Operating Natural Gas Wells, 1981	0	—	0
Operable Electrical Generating Plants, 1981	15	48	0.49
Per Capita Energy Use, 1981 (million Btu)			
Residential	24	51	—
Commercial	19	51	—
Industrial	73	42	—
Transportation	127	6	—
Total	242	44	—
Personal Income, 1981 (millions)	\$10,818	38	0.45
Per Capita Personal Income, 1981	\$11,050	15	—
Nonagricultural Employment, 1981 (thousands) ...	405	41	0.44
Manufacturing Employment, 1981 (thousands) ...	23	46	0.11
Shipments by Manufacturers, 1981 (millions)	\$ 3,626	44	0.18
Motor Vehicle Registrations, 1981 (thousands)	588	46	0.36
Licensed Drivers, 1981 (thousands)	535	43	0.36
Vehicle Miles of Highway Travel, 1981 (millions) ..	5,855	44	0.38

NA-Not available.

Energy Production and Consumption—Hawaii

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy and Energy Prices—Hawaii

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source—Hawaii

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Inputs at Utilities and Petroleum Consumption by Source—Hawaii

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹No coal was consumed. Small quantities of wood and waste were used in all years shown.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity—Hawaii

1971 219.2 trillion Btu. No interstate sales of electricity.

1976 224.7 trillion Btu. No interstate sales of electricity.

1981 237.2 trillion Btu. No interstate sales of electricity.

* Less than 0.5 percent.

¹ No coal was consumed. Small amounts of wood and waste were consumed at electric utilities in all years shown.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Hawaii

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	46
Consumption, 1981	None	35	50	44
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	None	36	None	36
Residential Prices, 1980	None	1	None	2

NA-Not available.

¹Coal reserves for 1980.

Notes

- Hawaii was one of 15 States that produced no fuel in 1981.
- The small amount of natural gas consumed is synthetic.
- More than 99 percent of the electricity generated during 1981 was by petroleum-fired plants.
- Hawaii's consumption of energy between 1980 and 1981 decreased by 9.1 percent. This was the second largest decrease in the Nation.
- Hawaii is the only State that consumed no coal in 1981.
- During 1981 the residential and commercial sectors' energy use per person in Hawaii was the lowest in the Nation.
- Hawaii ranked 45th in total energy consumption during 1981.
- Hawaii ranked 39th in total energy expenditures during 1980.

Idaho

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	958	40	0.42
Area (square miles).....	83,564	13	2.31
Normal Heating Degree-Days, 1951-1980.....	6,935	11	—
Normal Cooling Degree-Days, 1951-1980.....	416	41	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	38	30	1.24
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	74	10	—
Commercial.....	68	4	—
Industrial.....	157	14	—
Transportation.....	80	32	—
Total.....	378	12	—
Personal Income, 1981 (millions).....	\$8,573	43	0.36
Per Capita Personal Income, 1981.....	\$8,949	37	—
Nonagricultural Employment, 1981 (thousands)...	328	44	0.36
Manufacturing Employment, 1981 (thousands)...	53	41	0.26
Shipments by Manufacturers, 1981 (millions).....	\$5,005	41	0.25
Motor Vehicle Registrations, 1981 (thousands)....	913	38	0.56
Licensed Drivers, 1981 (thousands).....	643	40	0.44
Vehicle Miles of Highway Travel, 1981 (millions) ..	6,977	40	0.45

Energy Production and Consumption — Idaho

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Idaho

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Sources — Idaho

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Idaho

- 1971 265.8 trillion Btu. Excludes 49.8 trillion Btu of net interstate receipts of electricity.
- 1976 323.9 trillion Btu. Excludes 46.1 trillion Btu of net interstate receipts of electricity.
- 1981 269.7 trillion Btu. Excludes 92.1 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Idaho

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

*Represents small, non-zero value.

¹Including lease condensate.

Idaho

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	42
Consumption, 1981	44	47	42	35
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	30	None	None	—
Energy Expenditures, 1980	43	47	38	45
Residential Prices, 1980	33	26	10	49

NA-Not available.

¹Coal reserves for 1980.

Notes

- Idaho was one of 15 States that produced no fuel in 1981.
- Energy consumption in 1981 was higher than the 1980 level in seven States. Idaho, with a 2.5 percent increase, ranked sixth.
- More than 99 percent of the electricity generated in this State during 1981 was by hydropower. This is the largest hydropower share in the Nation.
- Idaho ranked 39th in total energy consumption during 1981.
- Idaho ranked 42nd in total energy expenditures during 1980.

Illinois

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	11,444	5	4.99
Area (square miles).....	56,345	24	1.56
Normal Heating Degree-Days, 1951-1980.....	6,175	17	—
Normal Cooling Degree-Days, 1951-1980.....	936	22	—
Operating Coal Mines, 1981.....	117	8	2.01
Operating Oil Wells, 1981.....	26,100	6	4.72
Operating Natural Gas Wells, 1981.....	70	24	0.04
Operable Electrical Generating Plants, 1981.....	76	12	2.48
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	73	11	—
Commercial.....	57	9	—
Industrial.....	115	24	—
Transportation.....	68	41	—
Total.....	313	25	—
Personal Income, 1981 (millions).....	\$132,638	4	5.51
Per Capita Personal Income, 1981.....	\$11,590	7	—
Nonagricultural Employment, 1981 (thousands)...	4,732	4	5.17
Manufacturing Employment, 1981 (thousands)...	1,131	5	5.59
Shipments by Manufacturers, 1981 (millions).....	\$126,986	3	6.29
Motor Vehicle Registrations, 1981 (thousands)....	7,903	6	4.81
Licensed Drivers, 1981 (thousands).....	6,863	6	4.67
Vehicle Miles of Highway Travel, 1981 (millions) ..	65,836	7	4.25

Energy Production and Consumption — Illinois

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Illinois

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Illinois

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Illinois

1971 3,703.1 trillion Btu. Excludes 41.3 trillion Btu of net interstate receipts of electricity.

1976 4,065.0 trillion Btu. Excludes 53.7 trillion Btu of net interstate shipments of electricity.

1981 3,566.4 trillion Btu. Excludes 21.1 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Illinois

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U_3O_8)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U_3O_8)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

W: Withheld to avoid disclosure
of individual company data.

¹Including lease condensate.

Illinois

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	5	16	26	8
Consumption, 1981	5	7	4	6
Value of Production, 1981	4	15	26	NA
Reserves, 1981 ¹	3	16	W	—
Energy Expenditures, 1980	4	4	3	5
Residential Prices, 1980	6	45	27	12

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- This State led the Nation in the production of electricity by nuclear power during 1981. The 29.5 billion kilowatt-hours generated was 11 percent of the total electricity generated by nuclear power in the United States.
- Approximately 38 percent of the coal produced in the United States during 1981 was from underground mines. Illinois was one of only five States that had more coal produced from underground than from surface mines.
- More than 99 percent of Illinois' coal production in 1981 was high-volatile bituminous coal.
- Illinois was the sixth largest consumer of coal at electric utilities in 1981.
- Illinois ranked sixth in total energy consumption during 1981.
- Illinois ranked fourth in total energy expenditures during 1980.

Energy Production and Consumption — Indiana

Note: Charts are scaled to represent approximately equal Btu content.

Indiana

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	5,485	13	2.39
Area (square miles).....	36,185	38	1.00
Normal Heating Degree-Days, 1951-1980.....	5,871	23	—
Normal Cooling Degree-Days, 1951-1980.....	919	24	—
Operating Coal Mines, 1981.....	105	9	1.81
Operating Oil Wells, 1981.....	5,715	14	1.03
Operating Natural Gas Wells, 1981.....	720	16	0.36
Operable Electrical Generating Plants, 1981.....	43	27	1.40
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	78	3	—
Commercial.....	39	38	—
Industrial.....	231	5	—
Transportation.....	81	29	—
Total.....	429	5	—
Personal Income, 1981 (millions).....	\$53,185	12	2.21
Per Capita Personal Income, 1981.....	\$ 9,697	33	—
Nonagricultural Employment, 1981 (thousands)...	2,114	14	2.31
Manufacturing Employment, 1981 (thousands)....	653	11	3.23
Shipments by Manufacturers, 1981 (millions)	\$70,292	9	3.48
Motor Vehicle Registrations, 1981 (thousands)....	4,064	11	2.47
Licensed Drivers, 1981 (thousands).....	3,495	14	2.38
Vehicle Miles of Highway Travel, 1981 (millions) ..	38,882	12	2.51

Expenditures for Energy and Energy Prices — Indiana

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures, for Energy by Source — Indiana

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Indiana

1971 2,349.7 trillion Btu. Excludes 72.3 trillion Btu of net interstate shipments of electricity.

1976 2,438.2 trillion Btu. Excludes 15.7 trillion Btu of net interstate receipts of electricity.

1981 2,367.3 trillion Btu. Excludes 15.4 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Indiana

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

Crude Oil¹ Proved Reserves

Natural Gas Proved Reserves

Uranium (U₃O₈) Reserves

Production Value

Coal Mine-Mouth

Crude Oil Wellhead

Natural Gas Wellhead

Uranium (U₃O₈) Mine-Mouth

Total Energy Consumption

Percent of U.S. Total

W: Withheld to avoid disclosure of individual company data.

*Represents small, non-zero value.

¹Including lease condensate.

Indiana

State Ranking

Coal

Petroleum

Natural Gas

Electricity

	Coal	Petroleum	Natural Gas	Electricity
Production, 1981	10	22	28	13
Consumption, 1981	4	12	10	12
Value of Production, 1981	9	22	28	NA
Reserves, 1981 ¹	10	24	W	—
Energy Expenditures, 1980	3	12	10	12
Residential Prices, 1980	19	32	36	34

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- More than 98 percent of the electricity generated during 1981 was by coal-fired plants.
- More than 98 percent of Indiana's 1981 coal production was from surface mines.
- About 95 percent of Indiana's coal production in 1981 was high-volatile bituminous coal.
- Indiana ranked fifth in the consumption of coal at electric utilities in 1981.
- Indiana ranked fifth in per capita energy consumption in 1981.
- Indiana ranked tenth in total energy consumption during 1981.
- Indiana ranked 11th in total energy expenditures during 1980.

Iowa

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	2,914	28	1.27
Area (square miles).....	56,275	25	1.56
Normal Heating Degree-Days, 1951-1980.....	6,932	12	—
Normal Cooling Degree-Days, 1951-1980.....	876	25	—
Operating Coal Mines, 1981.....	15	20	0.26
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	139	5	4.54
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	76	6	—
Commercial.....	47	22	—
Industrial.....	134	21	—
Transportation.....	77	34	—
Total.....	334	20	—
Personal Income, 1981 (millions).....	\$30,373	27	1.26
Per Capita Personal Income, 1981.....	\$10,423	20	—
Nonagricultural Employment, 1981 (thousands)...	1,089	28	1.19
Manufacturing Employment, 1981 (thousands)....	237	24	1.17
Shipments by Manufacturers, 1981 (millions).....	\$33,221	21	1.65
Motor Vehicle Registrations, 1981 (thousands)....	2,590	26	1.58
Licensed Drivers, 1981 (thousands).....	2,122	25	1.44
Vehicle Miles of Highway Travel, 1981 (millions) ..	19,113	29	1.23

Energy Production and Consumption — Iowa

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Iowa

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Iowa

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Iowa

1971 888.8 trillion Btu. Excludes 14.6 trillion Btu of net interstate receipts of electricity.

1976 977.9 trillion Btu. Excludes 43.5 trillion Btu of net interstate receipts of electricity.

1981 925.6 trillion Btu. Excludes 48.7 trillion Btu of net interstate receipts of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source — Iowa

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹ Includes small quantities of wood and waste used in all years shown.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Iowa

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	24	None	None	35
Consumption, 1981	19	26	20	28
Value of Production, 1981	21	—	—	NA
Reserves, 1981 ¹	18	None	None	—
Energy Expenditures, 1980	20	27	20	27
Residential Prices, 1980	17	49	38	21

NA-Not available.

¹Coal reserves for 1980.

Notes

- Nearly 85 percent of the electricity generated in 1981 was from coal-fired plants.
- All of the coal produced in 1981 was high-volatile bituminous coal.
- Iowa ranked 26th in total energy consumption during 1981.
- Iowa ranked 25th in total energy expenditures during 1980.

Kansas

K
A
N
S
A
S

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	2,385	32	1.04
Area (square miles).....	82,277	14	2.27
Normal Heating Degree-Days, 1951-1980.....	4,988	29	—
Normal Cooling Degree-Days, 1951-1980.....	1,546	12	—
Operating Coal Mines, 1981.....	8	22	0.14
Operating Oil Wells, 1981.....	42,402	4	7.67
Operating Natural Gas Wells, 1981.....	15,550	8	7.82
Operable Electrical Generating Plants, 1981.....	102	8	3.33
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	71	13	—
Commercial.....	59	8	—
Industrial.....	163	12	—
Transportation.....	112	8	—
Total.....	404	8	—
Personal Income, 1981 (millions).....	\$25,790	30	1.07
Per Capita Personal Income, 1981.....	\$10,813	16	—
Nonagricultural Employment, 1981 (thousands)...	950	31	1.04
Manufacturing Employment, 1981 (thousands)....	189	31	0.93
Shipments by Manufacturers, 1981 (millions)	\$26,474	26	1.31
Motor Vehicle Registrations, 1981 (thousands)....	2,140	30	1.30
Licensed Drivers, 1981 (thousands).....	1,680	32	1.14
Vehicle Miles of Highway Travel, 1981 (millions) ..	17,470	31	1.13

Energy Production and Consumption — Kansas

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Kansas

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Kansas

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Kansas

1971 930.4 trillion Btu. Excludes 23.9 trillion Btu of net interstate shipments of electricity.

1976 994.3 trillion Btu. Excludes 19.4 trillion Btu of net interstate shipments of electricity.

1981 999.6 trillion Btu. Excludes 35.0 trillion Btu of net interstate shipments of electricity.

*Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Kansas

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Kansas

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	22	8	5	32
Consumption, 1981	22	28	11	33
Value of Production, 1981	20	8	7	NA
Reserves, 1981 ¹	21	8	6	—
Energy Expenditures, 1980	25	26	13	30
Residential Prices, 1980	42	50	49	21

NA-Not available.

¹Coal reserves for 1980.

Notes

- All 1981 coal production in this State was from surface mines.
- Energy consumption in 1981 was 6.7 percent below the 1980 level. This was the sixth largest percentage decline for any State.
- This State ranked eighth in per capita energy consumption in 1981.
- Kansas ranked 27th in total energy consumption during 1981.
- Kansas ranked 26th in total energy expenditures during 1980.

Kentucky

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	3,665	23	1.60
Area (square miles).....	40,409	37	1.12
Normal Heating Degree-Days, 1951-1980.....	4,544	34	—
Normal Cooling Degree-Days, 1951-1980.....	1,215	16	—
Operating Coal Mines, 1981.....	1,618	1	27.86
Operating Oil Wells, 1981.....	14,585	11	2.64
Operating Natural Gas Wells, 1981.....	8,151	9	4.10
Operable Electrical Generating Plants, 1981.....	32	36	1.04
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	68	24	—
Commercial.....	42	31	—
Industrial.....	158	13	—
Transportation.....	88	22	—
Total.....	356	16	—
Personal Income, 1981 (millions).....	\$30,824	26	1.28
Per Capita Personal Income, 1981.....	\$ 8,410	45	—
Nonagricultural Employment, 1981 (thousands)....	1,196	27	1.31
Manufacturing Employment, 1981 (thousands)....	270	23	1.34
Shipments by Manufacturers, 1981 (millions).....	\$30,403	23	1.51
Motor Vehicle Registrations, 1981 (thousands)....	2,658	24	1.62
Licensed Drivers, 1981 (thousands).....	2,147	24	1.46
Vehicle Miles of Highway Travel, 1981 (millions) ..	25,195	23	1.63

Energy Production and Consumption — Kentucky

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Kentucky

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Kentucky

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Kentucky

1971 1,205.6 trillion Btu. Excludes 103.1 trillion Btu of net interstate shipments of electricity.

1976 1,350.9 trillion Btu. Excludes 22.7 trillion Btu of net interstate receipts of electricity.

1981 1,355.6 trillion Btu. Excludes 51.5 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Kentucky

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

¹Including lease condensate.

Kentucky

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	1	21	18	15
Consumption, 1981	8	24	24	17
Value of Production, 1981	1	21	21	NA
Reserves, 1981 ¹	5	23	20	—
Energy Expenditures, 1980	11	22	28	21
Residential Prices, 1980	32	7	42	45

NA-Not available.

¹Coal reserves for 1980.

Notes

- Approximately 51 percent of the coal produced during 1981 was from underground mines. Kentucky was one of only five States that had more coal produced from underground than from surface mines.
- Nearly 95 percent of the electricity generated in Kentucky during 1981 was from coal-fired plants.
- More than 99 percent of Kentucky's coal production in 1981 was high-volatile bituminous coal.
- Kentucky ranked 19th in total energy consumption during 1981.
- Kentucky ranked 21st in total energy expenditures during 1980.

Louisiana

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,295	18	1.87
Area (square miles).....	47,752	31	1.32
Normal Heating Degree-Days, 1951-1980.....	1,794	48	—
Normal Cooling Degree-Days, 1951-1980.....	2,588	4	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	25,320	7	4.58
Operating Natural Gas Wells, 1981.....	17,048	6	8.57
Operable Electrical Generating Plants, 1981.....	41	29	1.34
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	68	25	—
Commercial.....	73	3	—
Industrial.....	521	1	—
Transportation.....	154	3	—
Total.....	815	1	—
Personal Income, 1981 (millions).....	\$40,995	20	1.70
Per Capita Personal Income, 1981.....	\$ 9,545	35	—
Nonagricultural Employment, 1981 (thousands)....	1,631	20	1.78
Manufacturing Employment, 1981 (thousands)....	222	26	1.10
Shipments by Manufacturers, 1981 (millions).....	\$57,796	11	2.86
Motor Vehicle Registrations, 1981 (thousands)....	2,903	22	1.77
Licensed Drivers, 1981 (thousands).....	2,406	20	1.64
Vehicle Miles of Highway Travel, 1981 (millions) ..	24,960	24	1.61

Energy Production and Consumption — Louisiana

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Louisiana

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Louisiana

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Louisiana

1971 [White Bar] 2,608.5 trillion Btu. Excludes 4.7 trillion Btu of net interstate shipments of electricity.

1976 [Dotted Bar] 3,113.9 trillion Btu. Excludes 6.4 trillion Btu of net interstate receipts of electricity.

1981 [Solid Black Bar] 3,313.5 trillion Btu. Excludes 187.8 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Louisiana

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U₃O₈) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U₃O₈) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Louisiana

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	3	2	18
Consumption, 1981	41	5	3	13
Value of Production, 1981	—	2	1	NA
Reserves, 1981 ¹	None	4	2	—
Energy Expenditures, 1980	47	7	6	18
Residential Prices, 1980	27	4	32	40

NA-Not available.

¹Coal reserves for 1980.

Notes

- This State had the highest per capita energy consumption in the Nation in 1981.
- Energy consumption in 1981 was higher than the 1980 level in seven States. Louisiana, with a 6.2 percent increase, ranked third.
- Nearly 91 percent of the electricity generated in Louisiana during 1981 was from natural gas-fired plants.
- Louisiana ranked first in offshore production of natural gas in 1981.
- Small quantities of uranium were produced as a by-product of other mining (usually nitrate) despite the absence of quantifiable uranium reserves.
- Louisiana ranked seventh in total energy consumption during 1981.
- Louisiana ranked tenth in total energy expenditures during 1980.

Maine

M
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		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	1,131	38	0.49
Area (square miles).....	33,265	39	0.92
Normal Heating Degree-Days, 1951-1980.....	7,945	6	—
Normal Cooling Degree-Days, 1951-1980.....	225	47	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	55	22	1.80
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	61	38	—
Commercial.....	31	47	—
Industrial.....	105	28	—
Transportation.....	73	39	—
Total.....	269	40	—
Personal Income, 1981 (millions).....	\$9,663	41	0.40
Per Capita Personal Income, 1981.....	\$8,543	42	—
Nonagricultural Employment, 1981 (thousands)....	419	39	0.46
Manufacturing Employment, 1981 (thousands)....	114	36	0.56
Shipments by Manufacturers, 1981 (millions).....	\$9,127	37	0.45
Motor Vehicle Registrations, 1981 (thousands)....	779	40	0.47
Licensed Drivers, 1981 (thousands).....	753	38	0.51
Vehicle Miles of Highway Travel, 1981 (millions) ..	7,587	38	0.49

Energy Production and Consumption — Maine

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Maine

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Maine

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Maine

- 1971 357.2 trillion Btu. Excludes 0.1 trillion Btu of net interstate shipments of electricity.
- 1976 417.2 trillion Btu. Excludes 40.5 trillion Btu of net interstate shipments of electricity.
- 1981 341.2 trillion Btu. Excludes 36.5 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Maine

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Maine

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	43
Consumption, 1981	46	38	51	41
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	46	39	50	39
Residential Prices, 1980	43	29	2	9

NA-Not available.

¹Coal reserves for 1980.

Notes

- Maine was one of 15 States that produced no fuel in 1981.
- Maine was one of five States in which nuclear power was the principal fuel source for electricity generation during 1981. About 56 percent of the total generation was from nuclear-powered plants.
- The average price of \$6.18 per thousand cubic feet for natural gas consumed was second highest in the United States in 1981.
- Maine ranked 41st in total energy consumption during 1981.
- Maine ranked 38th in total energy expenditures during 1980.

Maryland

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,259	19	1.86
Area (square miles).....	10,460	42	0.29
Normal Heating Degree-Days, 1951-1980.....	4,811	30	—
Normal Cooling Degree-Days, 1951-1980.....	1,012	20	—
Operating Coal Mines, 1981.....	49	13	0.84
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	10	28	0.01
Operable Electrical Generating Plants, 1981.....	20	45	0.65
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	61	37	—
Commercial.....	37	44	—
Industrial.....	92	35	—
Transportation.....	76	36	—
Total.....	266	41	—
Personal Income, 1981 (millions).....	\$48,822	15	2.03
Per Capita Personal Income, 1981.....	\$11,463	9	—
Nonagricultural Employment, 1981 (thousands)....	1,716	19	1.87
Manufacturing Employment, 1981 (thousands)....	232	25	1.15
Shipments by Manufacturers, 1981 (millions).....	\$21,321	28	1.06
Motor Vehicle Registrations, 1981 (thousands)....	2,933	21	1.79
Licensed Drivers, 1981 (thousands).....	2,723	19	1.85
Vehicle Miles of Highway Travel, 1981 (millions) ..	28,617	21	1.85

Energy Production and Consumption — Maryland

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy and Energy Prices — Maryland

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Maryland

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Maryland

1971 1,093.7 trillion Btu. Excludes 29.5 trillion Btu of net interstate receipts of electricity.
1976 1,125.5 trillion Btu. Excludes 20.0 trillion Btu of net interstate receipts of electricity.
1981 1,041.7 trillion Btu. Excludes 89.4 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Maryland

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

*Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

822 Million Short Tons
0.17 Percent of U.S. Total

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

None

31,006 Million Barrels

Natural Gas Proved Reserves

W: Less than 125 Billion Cubic Feet
W: Less than 0.1 Percent of U.S. Total

209,434 Billion Cubic Feet

Uranium (U₃O₈) Reserves

None

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$132 Million
0.61 Percent of U.S. Total

\$21,522 Million

Crude Oil Wellhead

None

\$100,465 Million

Natural Gas Wellhead

* Million
* Percent of U.S. Total

\$39,562 Million

Uranium (U₃O₈) Mine-Mouth

None

\$1,239 Million

Total Energy Consumption

1,131 Trillion Btu
1.53 Percent of U.S. Total

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

W: Withheld to avoid disclosure of individual company data.

* Represents small, non-zero value.

¹ Including lease condensate.

Maryland

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	21	None	30	28
Consumption, 1981	28	18	28	23
Value of Production, 1981	18	—	29	NA
Reserves, 1981 ¹	23	None	W	—
Energy Expenditures, 1980	16	19	24	19
Residential Prices, 1980	20	23	14	16

NA-Not Available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Wellhead value for natural gas averaged \$0.48 per thousand cubic feet during 1981. This was the lowest average in the United States.
- Nuclear power accounted for 38 percent of electricity generation in 1981.
- Maryland ranked 24th in total energy consumption during 1981.
- Maryland ranked 20th in total energy expenditures during 1980.

Massachusetts

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	5,774	11	2.52
Area (square miles).....	8,284	45	0.23
Normal Heating Degree-Days, 1951-1980.....	6,322	16	—
Normal Cooling Degree-Days, 1951-1980.....	451	38	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	66	14	2.15
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	60	40	—
Commercial.....	45	27	—
Industrial.....	41	51	—
Transportation.....	62	46	—
Total.....	209	48	—
Personal Income, 1981 (millions).....	\$64,244	10	2.67
Per Capita Personal Income, 1981.....	\$11,126	14	—
Nonagricultural Employment, 1981 (thousands)...	2,668	10	2.91
Manufacturing Employment, 1981 (thousands)...	669	10	3.31
Shipments by Manufacturers, 1981 (millions).....	\$47,905	13	2.37
Motor Vehicle Registrations, 1981 (thousands)....	3,876	14	2.36
Licensed Drivers, 1981 (thousands).....	3,593	11	2.44
Vehicle Miles of Highway Travel, 1981 (millions) ..	35,948	14	2.32

Energy Production and Consumption — Massachusetts

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Massachusetts

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Massachusetts

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Massachusetts

1971 1,522.8 trillion Btu. Excludes 5.0 trillion Btu of net interstate shipments of electricity.

1976 1,488.5 trillion Btu. Excludes 22.9 trillion Btu of net interstate receipts of electricity.

1981 1,147.3 trillion Btu. Excludes 56.7 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Massachusetts

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Massachusetts

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	25
Consumption, 1981	42	11	26	26
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	38	11	16	14
Residential Prices, 1980	43	35	6	5

NA-Not available.

¹Coal reserves for 1980.

Notes

- Massachusetts was one of 15 States that produced no fuel in 1981.
- Massachusetts was the fourth largest consumer of petroleum for producing electricity during 1981. About 77 percent of the electricity generated was from petroleum-fired plants.
- Ranked 48th in energy consumption per capita during 1981; only Rhode Island, New Hampshire, and New York used less energy per person.
- Massachusetts ranked 22nd in total energy consumption during 1981.
- Massachusetts ranked 15th in total energy expenditures during 1980.

Michigan

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	9,215	8	4.02
Area (square miles).....	58,527	23	1.62
Normal Heating Degree-Days, 1951-1980.....	6,823	13	—
Normal Cooling Degree-Days, 1951-1980.....	577	34	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	4,417	16	0.80
Operating Natural Gas Wells, 1981.....	448	18	0.23
Operable Electrical Generating Plants, 1981.....	150	3	4.90
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	74	9	—
Commercial.....	43	28	—
Industrial.....	99	30	—
Transportation.....	65	45	—
Total.....	281	33	—
Personal Income, 1981 (millions).....	\$99,017	8	4.11
Per Capita Personal Income, 1981.....	\$10,745	18	—
Nonagricultural Employment, 1981 (thousands)...	3,364	8	3.67
Manufacturing Employment, 1981 (thousands)...	979	7	4.84
Shipments by Manufacturers, 1981 (millions)	\$105,175	7	5.21
Motor Vehicle Registrations, 1981 (thousands)....	6,410	8	3.90
Licensed Drivers, 1981 (thousands).....	6,450	7	4.39
Vehicle Miles of Highway Travel, 1981 (millions) ..	62,090	8	4.01

Energy Production and Consumption — Michigan

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Michigan

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Michigan

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Michigan

- 1971 2,799.8 trillion Btu. Excludes 42.5 trillion Btu of net interstate receipts of electricity.
- 1976 2,952.2 trillion Btu. Excludes 26.8 trillion Btu of net interstate receipts of electricity.
- 1981 2,643.1 trillion Btu. Excludes 54.0 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Michigan

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

¹Including lease condensate.

Michigan

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	12	12	9
Consumption, 1981	7	10	6	10
Value of Production, 1981	—	11	10	NA
Reserves, 1981 ¹	27	10	16	—
Energy Expenditures, 1980	6	10	7	8
Residential Prices, 1980	9	21	39	17

NA-Not available.

¹Coal reserves for 1980.

Notes

- Over 70 percent of the electricity generation in Michigan during 1981 was by coal-fired plants.
- Michigan ranked 6th in the production of electricity by nuclear power during 1981.
- Michigan ranked eighth in total energy consumption during 1981.
- Michigan ranked eighth in total energy expenditures during 1980.

Minnesota

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,113	21	1.79
Area (square miles).....	84,402	12	2.33
Normal Heating Degree-Days, 1951-1980.....	8,771	2	—
Normal Cooling Degree-Days, 1951-1980.....	476	37	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	139	5	4.54
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	68	22	—
Commercial.....	37	43	—
Industrial.....	108	27	—
Transportation.....	77	35	—
Total.....	290	30	—
Personal Income, 1981 (millions).....	\$44,060	19	1.83
Per Capita Personal Income, 1981.....	\$10,712	19	—
Nonagricultural Employment, 1981 (thousands)...	1,763	17	1.93
Manufacturing Employment, 1981 (thousands)....	364	20	1.80
Shipments by Manufacturers, 1981 (millions).....	\$35,504	20	1.76
Motor Vehicle Registrations, 1981 (thousands)....	3,336	18	2.03
Licensed Drivers, 1981 (thousands).....	2,383	21	1.62
Vehicle Miles of Highway Travel, 1981 (millions) ..	28,678	20	1.85

Energy Production and Consumption — Minnesota

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Minnesota

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Minnesota

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Minnesota

1971 1,116.9 trillion Btu. Excludes 62.1 trillion Btu of net interstate receipts of electricity.

1976 1,317.5 trillion Btu. Excludes 5.9 trillion Btu of net interstate receipts of electricity.

1981 1,142.3 trillion Btu. Excludes 52.3 trillion Btu of net interstate receipts of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in 1971 and 1976.

Energy Inputs at Utilities and Petroleum Consumption by Source — Minnesota

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹Includes small quantities of wood and waste used in 1971 and 1976.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U_3O_8) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U_3O_8) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

Minnesota

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	27
Consumption, 1981	17	20	18	24
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	21	21	17	25
Residential Prices, 1980	5	44	35	36

NA-Not available.

¹Coal reserves for 1980.

Notes

- Minnesota was one of 15 States that produced no fuel in 1981.
- Nearly two-thirds (64 percent) of the electricity generation in Minnesota during 1981 was by coal-fired plants. Most of the remainder (32 percent) was generated at nuclear plants.
- Minnesota ranked 23rd in total energy consumption during 1981.
- Minnesota ranked 22nd in total energy expenditures during 1980.

Mississippi

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	2,536	31	1.11
Area (square miles)	47,689	32	1.32
Normal Heating Degree-Days, 1951-1980	2,510	45	—
Normal Cooling Degree-Days, 1951-1980	2,163	5	—
Operating Coal Mines, 1981	0	—	0
Operating Oil Wells, 1981	3,154	18	0.57
Operating Natural Gas Wells, 1981	470	17	0.24
Operable Electrical Generating Plants, 1981	19	47	0.62
Per Capita Energy Use, 1981 (million Btu)			
Residential	58	42	—
Commercial	42	30	—
Industrial	113	26	—
Transportation	102	12	—
Total	315	24	—
Personal Income, 1981 (millions)	\$18,752	32	0.78
Per Capita Personal Income, 1981	\$ 7,394	51	—
Nonagricultural Employment, 1981 (thousands) ...	819	32	0.89
Manufacturing Employment, 1981 (thousands) ...	220	27	1.09
Shipments by Manufacturers, 1981 (millions)	\$19,811	29	0.98
Motor Vehicle Registrations, 1981 (thousands)	1,605	33	0.98
Licensed Drivers, 1981 (thousands)	1,699	31	1.16
Vehicle Miles of Highway Travel, 1981 (millions) ..	16,952	32	1.09

Energy Production and Consumption — Mississippi

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Mississippi

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Mississippi

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Mississippi

1971 684.0 trillion Btu. Excludes 62.9 trillion Btu of net interstate receipts of electricity.

1976 671.0 trillion Btu. Excludes 78.0 trillion Btu of net interstate receipts of electricity.

1981 704.3 trillion Btu. Excludes 93.6 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Mississippi

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

None

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

222 Million Barrels
0.72 Percent of U.S. Total

31,006 Million Barrels

Natural Gas Proved Reserves

2,042 Billion Cubic Feet
0.98 Percent of U.S. Total

209,434 Billion Cubic Feet

Uranium (U₃O₈) Reserves

None

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

None

\$21,522 Million

Crude Oil Wellhead

\$1,126 Million
1.12 Percent of U.S. Total

\$100,465 Million

Natural Gas Wellhead

\$582 Million
1.47 Percent of U.S. Total

\$39,562 Million

Uranium (U₃O₈) Mine-Mouth

None

\$1,239 Million

Total Energy Consumption

798 Trillion Btu
1.08 Percent of U.S. Total

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

Mississippi

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	11	9	40
Consumption, 1981	35	27	21	30
Value of Production, 1981	—	12	8	NA
Reserves, 1981 ¹	None	12	11	—
Energy Expenditures, 1980	30	29	22	29
Residential Prices, 1980	27	6	29	31

NA-Not available.

¹Coal reserves for 1980.

Notes

- Per capita energy consumption was slightly under the Nation's average of 323 million Btu in 1981.
- During 1981, 45 percent of the electricity generation in Mississippi was by coal-fired plants and 43 percent by natural gas-fired plants.
- Wellhead value for natural gas averaged \$3.21 per thousand cubic feet in 1981, second only to Alabama.
- Wellhead value for crude petroleum in 1981 averaged \$32.72 per barrel, fifth lowest in the Nation.
- Mississippi ranked 31st in total energy consumption during 1981.
- Mississippi ranked 30th in total energy expenditures during 1980.

Missouri

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,940	15	2.15
Area (square miles).....	69,697	19	1.93
Normal Heating Degree-Days, 1951-1980.....	5,091	28	—
Normal Cooling Degree-Days, 1951-1980.....	1,335	15	—
Operating Coal Mines, 1981.....	22	17	0.38
Operating Oil Wells, 1981.....	421	26	0.08
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	91	11	2.97
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	70	15	—
Commercial.....	46	26	—
Industrial.....	81	40	—
Transportation.....	81	31	—
Total.....	278	35	—
Personal Income, 1981 (millions).....	\$47,697	16	1.98
Per Capita Personal Income, 1981.....	\$ 9,655	34	—
Nonagricultural Employment, 1981 (thousands)...	1,956	15	2.14
Manufacturing Employment, 1981 (thousands)...	428	17	2.12
Shipments by Manufacturers, 1981 (millions).....	\$41,206	16	2.04
Motor Vehicle Registrations, 1981 (thousands)....	3,439	17	2.09
Licensed Drivers, 1981 (thousands).....	3,281	15	2.23
Vehicle Miles of Highway Travel, 1981 (millions) ..	35,178	15	2.27

Energy Production and Consumption — Missouri

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Missouri

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Missouri

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Missouri

1971 1,354.7 trillion Btu. Excludes 15.4 trillion Btu of net interstate shipments of electricity.

1976 1,530.5 trillion Btu. Excludes 61.6 trillion Btu of net interstate shipments of electricity.

1981 1,393.5 trillion Btu. Excludes 20.6 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Missouri

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Missouri

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	19	30	None	17
Consumption, 1981	11	16	16	19
Value of Production, 1981	19	29	—	NA
Reserves, 1981 ¹	14	W	None	—
Energy Expenditures, 1980	13	16	15	17
Residential Prices, 1980	39	47	34	24

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Approximately 97 percent of the electricity generated during 1981 was from coal-fired plants.
- The average wellhead price of \$34.38 per barrel of crude petroleum was the ninth lowest in the Nation.
- All 1981 coal production in the State was from surface mines and all was high-volatile bituminous coal.
- Missouri ranked 18th in total energy consumption during 1981.
- Missouri ranked 17th in total energy expenditures during 1980.

Montana

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		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	795	44	0.35
Area (square miles).....	147,046	4	4.06
Normal Heating Degree-Days, 1951-1980.....	8,260	3	—
Normal Cooling Degree-Days, 1951-1980.....	240	46	—
Operating Coal Mines, 1981.....	23	16	0.40
Operating Oil Wells, 1981.....	3,968	17	0.72
Operating Natural Gas Wells, 1981.....	2,140	12	1.08
Operable Electrical Generating Plants, 1981.....	31	37	1.01
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	69	19	—
Commercial.....	54	12	—
Industrial.....	193	7	—
Transportation.....	105	11	—
Total.....	421	6	—
Personal Income, 1981 (millions).....	\$7,460	45	0.31
Per Capita Personal Income, 1981.....	\$9,383	36	—
Nonagricultural Employment, 1981 (thousands)...	282	45	0.31
Manufacturing Employment, 1981 (thousands)....	23	45	0.11
Shipments by Manufacturers, 1981 (millions)	\$4,290	42	0.21
Motor Vehicle Registrations, 1981 (thousands)....	774	41	0.47
Licensed Drivers, 1981 (thousands).....	484	44	0.33
Vehicle Miles of Highway Travel, 1981 (millions) ..	7,002	39	0.45

Energy Production and Consumption — Montana

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Montana

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Montana

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Montana

1971 330.2 trillion Btu. Excludes 8.7 trillion Btu of net interstate shipments of electricity.

1976 415.7 trillion Btu. Excludes 54.6 trillion Btu of net interstate shipments of electricity.

1981 385.7 trillion Btu. Excludes 51.3 trillion Btu of net interstate shipments of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source — Montana

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹Includes small quantities of wood and waste used in all years shown.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

Montana

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U_3O_8)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U_3O_8)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

Montana

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	8	13	19	36
Consumption, 1981	34	41	41	38
Value of Production, 1981	11	13	17	NA
Reserves, 1981 ¹	1	14	14	—
Energy Expenditures, 1980	41	42	40	43
Residential Prices, 1980	31	42	41	50

NA-Not available.

¹Coal reserves for 1980.

Notes

- Energy consumption in 1981 was 8.8 percent below the 1980 level. This was the third largest decline shown for any State.
- This State ranked sixth in per capita energy consumption in 1981.
- About 99 percent of the coal production during 1981 was ranked as sub-bituminous; the remainder was lignite production.
- The average 12.97 short tons of coal produced per miner per hour was the highest State productivity average during 1981. All coal produced was from surface mines.
- Montana ranked fifth nationally in hydroelectricity generation during 1981. More than two-thirds (68 percent) of the electricity generation in this State was by hydropower.
- Montana ranked 40th in total energy consumption during 1981.
- Montana ranked 43rd in total energy expenditures during 1980.

Nebraska

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	1,577	35	0.69
Area (square miles).....	77,355	15	2.14
Normal Heating Degree-Days, 1951-1980.....	6,435	15	—
Normal Cooling Degree-Days, 1951-1980.....	1,085	18	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	1,870	21	0.34
Operating Natural Gas Wells, 1981.....	25	27	0.01
Operable Electrical Generating Plants, 1981.....	98	9	3.20
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	74	8	—
Commercial.....	62	5	—
Industrial.....	101	29	—
Transportation.....	83	27	—
Total.....	321	23	—
Personal Income, 1981 (millions).....	\$16,344	34	0.68
Per Capita Personal Income, 1981.....	\$10,364	22	—
Nonagricultural Employment, 1981 (thousands)...	623	35	0.68
Manufacturing Employment, 1981 (thousands)...	95	38	0.47
Shipments by Manufacturers, 1981 (millions).....	\$15,412	33	0.76
Motor Vehicle Registrations, 1981 (thousands)....	1,261	35	0.77
Licensed Drivers, 1981 (thousands).....	1,088	35	0.74
Vehicle Miles of Highway Travel, 1981 (millions) ..	11,504	34	0.74

Energy Production and Consumption — Nebraska

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Nebraska

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Nebraska

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Nebraska

- 1971 482.6 trillion Btu. Excludes 32.3 trillion Btu of net interstate receipts of electricity.
- 1976 589.5 trillion Btu. Excludes 7.0 trillion Btu of net interstate shipments of electricity.
- 1981 518.6 trillion Btu. Excludes 13.1 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Nebraska

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

*Less than 0.5 percent

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U_3O_8) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U_3O_8) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Nebraska

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	20	24	37
Consumption, 1981	32	37	33	36
Value of Production, 1981	—	20	25	NA
Reserves, 1981 ¹	None	20	W	—
Energy Expenditures, 1980	33	35	34	35
Residential Prices, 1980	23	51	44	41

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Over 37 percent of electricity generation in 1981 was from nuclear-powered plants.
- Nebraska's per capita energy consumption was slightly below the national average of 323 million Btu in 1981.
- Nebraska ranked 35th in total energy consumption during 1981.
- Nebraska ranked 35th in total energy expenditures during 1980.

Nevada

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	846	43	0.37
Area (square miles).....	110,561	7	3.06
Normal Heating Degree-Days, 1951-1980.....	4,263	36	—
Normal Cooling Degree-Days, 1951-1980.....	1,547	11	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	27	30	*
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	22	42	0.72
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	67	26	—
Commercial.....	41	34	—
Industrial.....	97	31	—
Transportation.....	136	5	—
Total.....	341	19	—
Personal Income, 1981 (millions).....	\$ 9,787	39	0.41
Per Capita Personal Income, 1981.....	\$11,569	8	—
Nonagricultural Employment, 1981 (thousands)...	411	40	0.45
Manufacturing Employment, 1981 (thousands)...	20	47	0.10
Shipments by Manufacturers, 1981 (millions).....	\$ 1,558	50	0.08
Motor Vehicle Registrations, 1981 (thousands)....	718	42	0.44
Licensed Drivers, 1981 (thousands).....	642	41	0.44
Vehicle Miles of Highway Travel, 1981 (millions) ..	6,515	42	0.42

*Represents small, non-zero value.

Energy Production and Consumption — Nevada

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Nevada

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Nevada

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Nevada

1971 220.3 trillion Btu. Excludes 19.3 trillion Btu of net interstate shipments of electricity.

1976 315.0 trillion Btu. Excludes 63.8 trillion Btu of net interstate shipments of electricity.

1981 342.5 trillion Btu. Excludes 54.1 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Nevada

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

0 5 10 15 20

Percent of U.S. Total

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Nevada

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	28	None	39
Consumption, 1981	33	43	39	39
Value of Production, 1981	—	28	—	NA
Reserves, 1981 ¹	None	W	None	—
Energy Expenditures, 1980	35	41	39	37
Residential Prices, 1980	1	10	21	26

NA-Not available

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Nevada was one of nine States with uranium reserves in 1981.
- The average value of \$23.96 per barrel for crude oil production was the second lowest in the Nation, after Alaska.
- This State ranked 17th in the generation of electricity by hydroelectric plants during 1981. More than 60 percent of the electricity generated was from coal-fired plants.
- Nevada ranked 42nd in total energy consumption during 1981.
- Nevada ranked 40th in total energy expenditures during 1980.

New Hampshire

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	937	42	0.41
Area (square miles).....	9,279	44	0.26
Normal Heating Degree-Days, 1951-1980.....	7,599	9	—
Normal Cooling Degree-Days, 1951-1980.....	290	44	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	20	45	0.65
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	61	39	—
Commercial.....	27	49	—
Industrial.....	51	47	—
Transportation.....	60	47	—
Total.....	199	50	—
Personal Income, 1981 (millions).....	\$9,367	42	0.39
Per Capita Personal Income, 1981.....	\$9,997	30	—
Nonagricultural Employment, 1981 (thousands)...	395	43	0.43
Manufacturing Employment, 1981 (thousands)...	117	35	0.58
Shipments by Manufacturers, 1981 (millions).....	\$7,259	40	0.36
Motor Vehicle Registrations, 1981 (thousands)....	816	39	0.50
Licensed Drivers, 1981 (thousands).....	665	39	0.45
Vehicle Miles of Highway Travel, 1981 (millions) ..	6,570	41	0.42

Energy Production and Consumption — New Hampshire

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — New Hampshire

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — New Hampshire

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

*Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — New Hampshire

1971 205.3 trillion Btu. Excludes 5.8 trillion Btu of net interstate shipments of electricity.

1976 215.6 trillion Btu. Excludes 7.9 trillion Btu of net interstate receipts of electricity.

1981 178.0 trillion Btu. Excludes 8.2 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — New Hampshire

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U_3O_8) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U_3O_8) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

¹Including lease condensate.

New Hampshire

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	47
Consumption, 1981	43	46	48	45
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	37	45	48	41
Residential Prices, 1980	43	17	12	7

NA-Not available.

¹Coal reserves for 1980.

Notes

- New Hampshire was one of 15 States that produced no fuel in 1981.
- The State ranked 50th in per capita energy consumption in 1981.
- New Hampshire ranked 48th in total energy consumption during 1981.
- New Hampshire ranked 45th in total energy expenditures during 1980.

New Jersey

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	7,421	9	3.24
Area (square miles)	7,787	46	0.22
Normal Heating Degree-Days, 1951-1980	5,424	25	—
Normal Cooling Degree-Days, 1951-1980	784	28	—
Operating Coal Mines, 1981	0	—	0
Operating Oil Wells, 1981	0	—	0
Operating Natural Gas Wells, 1981	0	—	0
Operable Electrical Generating Plants, 1981	30	38	0.98
Per Capita Energy Use, 1981 (million Btu)			
Residential	64	30	—
Commercial	49	18	—
Industrial	82	39	—
Transportation	83	28	—
Total	278	36	—
Personal Income, 1981 (millions)	\$90,001	9	3.74
Per Capita Personal Income, 1981	\$12,128	4	—
Nonagricultural Employment, 1981 (thousands) ...	3,098	9	3.38
Manufacturing Employment, 1981 (thousands) ...	771	9	3.81
Shipments by Manufacturers, 1981 (millions)	\$73,035	8	3.62
Motor Vehicle Registrations, 1981 (thousands)	4,803	9	2.92
Licensed Drivers, 1981 (thousands)	5,155	9	3.51
Vehicle Miles of Highway Travel, 1981 (millions) ..	51,328	9	3.31

Energy Production and Consumption — New Jersey

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — New Jersey

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — New Jersey

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — New Jersey

1971 1,909.7 trillion Btu. Excludes 59.4 trillion Btu of net interstate receipts of electricity.

1976 1,805.0 trillion Btu. Excludes 243.6 trillion Btu of net interstate receipts of electricity.

1981 1,841.1 trillion Btu. Excludes 221.2 trillion Btu of net interstate receipts of electricity.

* Small net losses resulted because the energy expended to pump water to elevated reservoirs during off-peak electric consumption periods was greater than the hydroelectric power generated during peak electricity consumption periods. The losses were less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — New Jersey

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

¹Net losses resulted because the energy expended to pump water to elevated reservoirs during off-peak electric consumption periods was greater than the hydroelectric power generated during peak electricity consumption periods.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U_3O_8)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U_3O_8)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

¹Including lease condensate.

New Jersey

State Ranking

	Coal	Petroleum	Natural Gas	Electricity
Production, 1981	None	None	None	26
Consumption, 1981	37	9	12	18
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	28	9	9	9
Residential Prices, 1980	11	38	8	1

NA-Not available.
¹Coal reserves for 1980.

Notes

- New Jersey was one of 15 States that produced no fuel in 1981.
- Energy consumption during 1981 was higher than the 1980 level in seven States. New Jersey, with a 0.3 percent increase, ranked seventh.
- New Jersey was the only State to indicate a net loss in electricity generation by hydropower during 1981. The net loss is the result of a high utilization of pumped storage, e.g., pumping water to higher elevated storage reservoirs during off peak electricity consumption periods to use for hydro-electricity generation during peak consumption periods.
- New Jersey ranked 11th in total energy consumption during 1981.
- New Jersey ranked ninth in total energy expenditures during 1980.

Energy Production and Consumption — New Mexico

Note: Charts are scaled to represent approximately equal Btu content.

New Mexico

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	1,333	37	0.58
Area (square miles)	121,593	5	3.36
Normal Heating Degree-Days, 1951-1980	4,756	33	—
Normal Cooling Degree-Days, 1951-1980	919	23	—
Operating Coal Mines, 1981	17	19	0.29
Operating Oil Wells, 1981	16,289	9	2.95
Operating Natural Gas Wells, 1981	15,560	7	7.83
Operable Electrical Generating Plants, 1981	22	42	0.72
Per Capita Energy Use, 1981 (million Btu)			
Residential	42	50	—
Commercial	50	17	—
Industrial	125	22	—
Transportation	144	4	—
Total	361	15	—
Personal Income, 1981 (millions)	\$11,298	37	0.47
Per Capita Personal Income, 1981	\$ 8,475	43	—
Nonagricultural Employment, 1981 (thousands) ...	476	38	0.52
Manufacturing Employment, 1981 (thousands) ...	34	43	0.17
Shipments by Manufacturers, 1981 (millions)	\$ 3,230	45	0.16
Motor Vehicle Registrations, 1981 (thousands) ...	1,100	36	0.67
Licensed Drivers, 1981 (thousands)	914	36	0.62
Vehicle Miles of Highway Travel, 1981 (millions) ..	11,470	35	0.74

Expenditures for Energy and Energy Prices — New Mexico

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — New Mexico

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — New Mexico

1971 563.6 trillion Btu. Excludes 102.2 trillion Btu of net interstate shipments of electricity.

1976 638.0 trillion Btu. Excludes 132.0 trillion Btu of net interstate shipments of electricity.

1981 631.7 trillion Btu. Excludes 150.5 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — New Mexico

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

New Mexico

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	13	7	4	34
Consumption, 1981	24	34	25	40
Value of Production, 1981	13	7	4	NA
Reserves, 1981 ¹	16	7	5	—
Energy Expenditures, 1980	31	37	29	40
Residential Prices, 1980	33	28	37	11

NA-Not available.

¹Coal reserves for 1980.

Notes

- New Mexico ranked first in 1981 among the nine States with uranium reserves.
- Three-fifths of New Mexico's coal production in 1981 was subbituminous coal; the remainder was high-volatile bituminous coal.
- More than three-fourths (78 percent) of New Mexico's electricity generation was from coal-fired units in 1981.
- New Mexico ranked 36th in total energy consumption during 1981.
- New Mexico ranked 36th in total energy expenditures during 1980.

New York

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	17,598	2	7.67
Area (square miles).....	49,108	30	1.36
Normal Heating Degree-Days, 1951-1980.....	5,943	20	—
Normal Cooling Degree-Days, 1951-1980.....	666	32	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	5,300	15	0.96
Operating Natural Gas Wells, 1981.....	2,636	11	1.33
Operable Electrical Generating Plants, 1981.....	177	2	5.78
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	53	46	—
Commercial.....	49	19	—
Industrial.....	49	48	—
Transportation.....	54	50	—
Total.....	204	49	—
Personal Income, 1981 (millions).....	\$201,707	2	8.38
Per Capita Personal Income, 1981.....	\$ 11,462	10	—
Nonagricultural Employment, 1981 (thousands)...	7,287	2	7.96
Manufacturing Employment, 1981 (thousands)...	1,433	2	7.09
Shipments by Manufacturers, 1981 (millions)	\$119,301	5	5.91
Motor Vehicle Registrations, 1981 (thousands)....	8,310	3	5.06
Licensed Drivers, 1981 (thousands).....	9,249	3	6.29
Vehicle Miles of Highway Travel, 1981 (millions) ..	79,130	3	5.10

Energy Production and Consumption — New York

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — New York

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — New York

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — New York

1971 4,403.0 trillion Btu. Excludes 65.3 trillion Btu of net interstate shipments of electricity.

1976 4,347.5 trillion Btu. Excludes 50.9 trillion Btu of net interstate shipments of electricity.

1981 3,631.1 trillion Btu. Excludes 35.7 trillion Btu of net interstate shipments of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in 1981.

Energy Inputs at Utilities and Petroleum Consumption by Source — New York

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹Includes small quantities of wood and waste used in 1981.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

New York

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	27	22	5
Consumption, 1981	21	3	8	4
Value of Production, 1981	—	27	22	NA
Reserves, 1981 ¹	None	W	21	—
Energy Expenditures, 1980	14	3	4	3
Residential Prices, 1980	12	37	9	3

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- This State ranked fourth nationally in the use of hydropower to generate electricity during 1981. The 26-billion kilowatt-hours of electricity generated was more than four times the hydroelectric generation in any other State east of the Rocky Mountains. During 1981, this State ranked fourth in the generation of electricity by nuclear power. Approximately 16 percent of the electricity generation in New York was by nuclear power. This State was the second largest consumer of petroleum for producing electricity during 1981.
- New York was one of only three petroleum producing States whose crude petroleum production averaged less than one barrel per well per day during 1981. The wellhead value of \$36.56 per barrel was the second highest average in the Nation.
- New York ranked fifth in total energy consumption during 1981.
- New York ranked third in total energy expenditures during 1980.

North Carolina

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		Rank	Percent of U.S. Total
Population, 1931 (thousands).....	5,952	10	2.60
Area (square miles).....	52,669	28	1.46
Normal Heating Degree-Days, 1951-1980.....	3,481	39	—
Normal Cooling Degree-Days, 1951-1980.....	1,390	14	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	60	18	1.96
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	63	31	—
Commercial.....	38	41	—
Industrial.....	96	33	—
Transportation.....	75	37	—
Total.....	272	39	—
Personal Income, 1981 (millions).....	\$51,534	13	2.14
Per Capita Personal Income, 1981.....	\$ 8,658	41	—
Nonagricultural Employment, 1981 (thousands)...	2,392	11	2.61
Manufacturing Employment, 1981 (thousands)....	821	8	4.06
Shipments by Manufacturers, 1981 (millions)	\$62,193	10	3.08
Motor Vehicle Registrations, 1981 (thousands)....	4,661	10	2.84
Licensed Drivers, 1981 (thousands).....	3,831	10	2.60
Vehicle Miles of Highway Travel, 1981 (millions) ..	42,059	11	2.71

Energy Production and Consumption — North Carolina

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices—North Carolina

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — North Carolina

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — North Carolina

- 1971 1,412.5 trillion Btu. Excludes 19.1 trillion Btu of net interstate shipments of electricity.
- 1976 1,504.7 trillion Btu. Excludes 42.7 trillion Btu of net interstate receipts of electricity.
- 1981 1,578.0 trillion Btu. Excludes 39.7 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — North Carolina

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U_3O_8) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U_3O_8) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

*Represents small, non-zero value.

¹Including lease condensate.

North Carolina

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	12
Consumption, 1981	9	14	29	11
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	29	None	None	—
Energy Expenditures, 1980	9	15	30	13
Residential Prices, 1980	21	31	17	36

NA-Not available.

¹Coal reserves for 1980.

Notes

- North Carolina was one of 15 States that produced no fuel in 1981.
- More than 87 percent of the electricity generated during 1981 was by coal-fired plants. The State ranked seventh in coal consumption at electric utilities in 1981.
- North Carolina ranked 15th in total energy consumption during 1981.
- North Carolina ranked 14th in total energy expenditures in 1980.

North Dakota

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	660	46	0.29
Area (square miles).....	70,702	17	1.95
Normal Heating Degree-Days, 1951-1980.....	9,481	1	—
Normal Cooling Degree-Days, 1951-1980.....	444	39	—
Operating Coal Mines, 1981.....	27	15	0.46
Operating Oil Wells, 1981.....	2,570	20	0.47
Operating Natural Gas Wells, 1981.....	65	25	0.03
Operable Electrical Generating Plants, 1981.....	30	38	0.98
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	76	5	—
Commercial.....	46	25	—
Industrial.....	165	11	—
Transportation.....	109	9	—
Total.....	397	9	—
Personal Income, 1981 (millions).....	\$ 6,741	46	0.28
Per Capita Personal Income, 1981.....	\$10,213	26	—
Nonagricultural Employment, 1981 (thousands)...	249	47	0.27
Manufacturing Employment, 1981 (thousands)...	15	48	0.07
Shipments by Manufacturers, 1981 (millions).....	\$ 2,362	48	0.12
Motor Vehicle Registrations, 1981 (thousands)....	673	43	0.41
Licensed Drivers, 1981 (thousands).....	425	47	0.29
Vehicle Miles of Highway Travel, 1981 (millions) ..	5,352	46	0.35

Energy Production and Consumption — North Dakota

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — North Dakota

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — North Dakota

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — North Dakota

1971 280.0 trillion Btu. Excludes 67.8 trillion Btu of net interstate shipments of electricity.

1976 301.2 trillion Btu. Excludes 77.6 trillion Btu of net interstate shipments of electricity.

1981 420.1 trillion Btu. Excludes 158.1 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — North Dakota

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U₃O₈) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U₃O₈) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

North Dakota

State Ranking

	Coal	Petroleum	Natural Gas	Electricity
Production, 1981	14	9	20	38
Consumption, 1981	20	42	43	46
Value of Production, 1981	17	9	20	NA
Reserves, 1981 ¹	11	11	19	—
Energy Expenditures, 1980	32	44	46	48
Residential Prices, 1980	38	39	24	44

NA-Not available.

¹Coal reserves for 1980.

Notes

- All of the coal production in North Dakota during 1981 was lignite from surface mines. This State ranked second in production of lignite.
- Energy consumption during 1981 was higher than the 1980 level in seven States. North Dakota, with a 7.4 percent increase, ranked first.
- The average 9.33 short tons of coal produced per miner per hour was the third highest State productivity average during 1981.
- The average mine price of \$7.86 per short ton for lignite was the lowest average price for coal during 1981.
- The average value of \$32.92 per barrel for crude petroleum production during 1981 was the sixth lowest average in the United States.
- North Dakota ranked 44th in total energy consumption during 1981.
- North Dakota ranked 46th in total energy expenditures during 1980.

		Rank	Percent of U.S. Total
Population, 1981 (thousands)	10,793	6	4.71
Area (square miles)	41,330	35	1.14
Normal Heating Degree-Days, 1951-1980	5,897	21	—
Normal Cooling Degree-Days, 1951-1980	769	30	—
Operating Coal Mines, 1981	274	5	4.72
Operating Oil Wells, 1981	22,441	8	4.06
Operating Natural Gas Wells, 1981	19,405	4	9.76
Operable Electrical Generating Plants, 1981	57	20	1.86
Per Capita Energy Use, 1981 (million Btu)			
Residential	76	4	—
Commercial	46	24	—
Industrial	177	9	—
Transportation	71	40	—
Total	370	14	—
Personal Income, 1981 (millions)	\$111,186	6	4.62
Per Capita Personal Income, 1981	\$ 10,302	24	—
Nonagricultural Employment, 1981 (thousands) ...	4,318	6	4.72
Manufacturing Employment, 1981 (thousands) ...	1,233	4	6.10
Shipments by Manufacturers, 1981 (millions)	\$122,287	4	6.06
Motor Vehicle Registrations, 1981 (thousands)	8,009	5	4.87
Licensed Drivers, 1981 (thousands)	6,337	8	4.31
Vehicle Miles of Highway Travel, 1981 (millions) ..	71,728	5	4.63

Energy Production and Consumption — Ohio

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Ohio

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Ohio

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Ohio

1971 3,753.6 trillion Btu. Excludes 156.2 trillion Btu of net interstate receipts of electricity.

1976 3,999.3 trillion Btu. Excludes 189.0 trillion Btu of net interstate receipts of electricity.

1981 3,852.0 trillion Btu. Excludes 145.3 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

¹Includes small amounts of electricity produced at utilities from wood and waste in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source — Ohio

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹Includes small quantities of wood and waste used in all years shown.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	7	19	13	4
Consumption, 1981	1	6	5	3
Value of Production, 1981	7	19	13	NA
Reserves, 1981 ¹	7	18	17	—
Energy Expenditures, 1980	2	8	5	7
Residential Prices, 1980	18	46	28	20

NA-Not available.

¹Coal reserves for 1980.

Notes

- This State was the largest consumer of coal for generating electricity and was the only State to generate more than 100 billion kilowatt-hours of electricity in coal-fired plants during 1981. During that year, 96 percent of electricity generation was from coal-fired units.
- About 29 percent of the coal produced during 1981 was from underground mines.
- Ohio ranked third in total energy consumption during 1981.
- Ohio ranked sixth in total energy expenditures during 1980.

Oklahoma

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	3,104	26	1.35
Area (square miles).....	69,956	18	1.93
Normal Heating Degree-Days, 1951-1980.....	3,571	38	—
Normal Cooling Degree-Days, 1951-1980.....	2,010	6	—
Operating Coal Mines, 1981.....	55	12	0.95
Operating Oil Wells, 1981.....	82,639	2	14.96
Operating Natural Gas Wells, 1981.....	18,451	5	9.28
Operable Electrical Generating Plants, 1981.....	42	28	1.37
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	75	7	—
Commercial.....	55	11	—
Industrial.....	170	10	—
Transportation.....	106	10	—
Total.....	405	7	—
Personal Income, 1981 (millions).....	\$31,753	25	1.32
Per Capita Personal Income, 1981.....	\$10,230	25	—
Nonagricultural Employment, 1981 (thousands)...	1,202	25	1.31
Manufacturing Employment, 1981 (thousands)...	200	30	0.99
Shipments by Manufacturers, 1981 (millions).....	\$25,311	27	1.25
Motor Vehicle Registrations, 1981 (thousands)...	2,746	23	1.67
Licensed Drivers, 1981 (thousands).....	1,953	29	1.33
Vehicle Miles of Highway Travel, 1981 (millions) ..	28,780	19	1.86

Energy Production and Consumption — Oklahoma

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Oklahoma

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditure for Energy by Source — Oklahoma

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Oklahoma

1971 991.0 trillion Btu. Excludes 55.8 trillion Btu of net interstate shipments of electricity.

1976 1,215.0 trillion Btu. Excludes 70.8 trillion Btu of net interstate shipments of electricity.

1981 1,313.0 trillion Btu. Excludes 55.1 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Oklahoma

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Oklahoma

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	18	5	3	19
Consumption, 1981	27	23	9	25
Value of Production, 1981	16	5	3	NA
Reserves, 1981 ¹	19	5	4	—
Energy Expenditures, 1980	29	24	11	26
Residential Prices, 1980	33	30	48	39

NA-Not available.

¹Coal reserves for 1980.

Notes

- Oklahoma's per capita energy consumption in 1981 was 405 million Btu. This was the seventh largest for any State.
- Energy consumption during 1981 was higher than the 1980 level in seven States. Oklahoma, with a 2.8 percent increase, ranked fifth.
- Two-thirds of the electricity generation in 1981 was by natural gas-fired plants.
- In 1981, more than 99 percent of the coal production in this State was from surface mines.
- Oklahoma ranked 21st in total energy consumption during 1981.
- Oklahoma ranked 24th in total energy expenditures during 1980.

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	2,663	30	1.16
Area (square miles).....	97,073	10	2.68
Normal Heating Degree-Days, 1951-1980.....	5,255	26	—
Normal Cooling Degree-Days, 1951-1980.....	203	48	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	9	29	*
Operable Electrical Generating Plants, 1981.....	60	18	1.96
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	70	16	—
Commercial.....	50	16	—
Industrial.....	114	25	—
Transportation.....	94	18	—
Total.....	328	21	—
Personal Income, 1981 (millions).....	\$26,529	29	1.10
Per Capita Personal Income, 1981.....	\$ 9,962	31	—
Nonagricultural Employment, 1981 (thousands)...	1,018	30	1.11
Manufacturing Employment, 1981 (thousands)...	203	29	1.00
Shipments by Manufacturers, 1981 (millions).....	\$18,835	30	0.93
Motor Vehicle Registrations, 1981 (thousands)....	2,172	29	1.32
Licensed Drivers, 1981 (thousands).....	1,984	28	1.35
Vehicle Miles of Highway Travel, 1981 (millions) ..	19,516	27	1.26

*Represents small, non-zero value.

Energy Production and Consumption — Oregon

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy and Energy Prices — Oregon

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Oregon

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Oregon

1971 800.2 trillion Btu. Excludes 41.7 trillion Btu of net interstate shipments of electricity.

1976 825.1 trillion Btu. Excludes 16.0 trillion Btu of net interstate receipts of electricity.

1981 864.8 trillion Btu. Excludes 7.9 trillion Btu of net interstate receipts of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source — Oregon

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹No coal was consumed in 1971 and 1976. Small quantities of wood and waste were used in all years shown.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

472,714 Million Short Tons

Crude Oil¹ Proved Reserves

31,006 Million Barrels

Natural Gas Proved Reserves

209,434 Billion Cubic Feet

Uranium (U₃O₈) Reserves

205 Thousand Short Tons

Production Value

Coal Mine-Mouth

\$21,522 Million

Crude Oil Wellhead

\$100,465 Million

Natural Gas Wellhead

\$39,562 Million

Uranium (U₃O₈) Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

W: Withheld to avoid disclosure of individual company data.

* Represents small, non-zero value.

¹ Including lease condensate.

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	31	22
Consumption, 1981	40	30	38	22
Value of Production, 1981	—	—	30	NA
Reserves, 1981 ¹	28	None	W	—
Energy Expenditures, 1980	42	30	35	32
Residential Prices, 1980	14	25	5	48

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- This State ranked second in the use of hydropower to generate electricity during 1981. About 80 percent of the State's total electricity generation was from hydropower.
- Of the Nation's 31 producers of natural gas in 1981, Oregon produced the least.
- Oregon ranked 28th in total energy consumption during 1981.
- Oregon ranked 33rd in total energy expenditures during 1980.

Pennsylvania

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	11,875	4	5.18
Area (square miles).....	45,308	33	1.25
Normal Heating Degree-Days, 1951-1980.....	5,881	22	—
Normal Cooling Degree-Days, 1951-1980.....	689	31	—
Operating Coal Mines, 1981.....	1,046	3	18.01
Operating Oil Wells, 1981.....	26,138	5	4.73
Operating Natural Gas Wells, 1981.....	21,500	3	10.81
Operable Electrical Generating Plants, 1981.....	70	13	2.28
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	71	14	—
Commercial.....	39	40	—
Industrial.....	138	18	—
Transportation.....	65	44	—
Total.....	312	26	—
Personal Income, 1981 (millions).....	\$123,057	5	5.11
Per Capita Personal Income, 1981.....	\$ 10,363	23	—
Nonagricultural Employment, 1981 (thousands)...	4,729	5	5.17
Manufacturing Employment, 1981 (thousands)...	1,299	3	6.43
Shipments by Manufacturers, 1981 (millions).....	\$115,182	6	5.71
Motor Vehicle Registrations, 1981 (thousands)....	7,235	7	4.40
Licensed Drivers, 1981 (thousands).....	7,252	5	4.93
Vehicle Miles of Highway Travel, 1981 (millions) ..	71,508	6	4.61

Energy Production and Consumption — Pennsylvania

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Pennsylvania

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Pennsylvania

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Pennsylvania

- 1971 4,123.1 trillion Btu. Excludes 33.4 trillion Btu of net interstate shipments of electricity.
- 1976 4,315.7 trillion Btu. Excludes 124.4 trillion Btu of net interstate shipments of electricity.
- 1981 3,772.9 trillion Btu. Excludes 62.7 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Pennsylvania

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

Crude Oil¹ Proved Reserves

Natural Gas Proved Reserves

Uranium (U₃O₈) Reserves

Production Value

Coal Mine-Mouth

Crude Oil Wellhead

Natural Gas Wellhead

Uranium (U₃O₈) Mine-Mouth

Total Energy Consumption

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

Pennsylvania

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	4	23	14	3
Consumption, 1981	2	8	7	5
Value of Production, 1981	3	23	14	NA
Reserves, 1981 ¹	6	21	15	—
Energy Expenditures, 1980	1	6	8	4
Residential Prices, 1980	24	43	22	13

NA-Not available.

¹Coal reserves for 1980.

Notes

- Pennsylvania was the only State to produce anthracite in 1981. During that year, anthracite production accounted for 6 percent of the State's total coal output.
- This State was the second largest consumer of coal for generating electricity during 1981. About four out of five kilowatt-hours of electricity generated was from coal-fired plants.
- The average production of 0.39 barrels per well per day of crude petroleum during 1981 was the lowest average in the United States
- The average price of \$44.28 per short ton for anthracite coal produced during 1981 was the highest average for all types of coal.
- Pennsylvania ranked fourth in total energy consumption during 1981.
- Pennsylvania ranked fifth in total energy expenditures during 1980.

Rhode Island

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	955	41	0.42
Area (square miles).....	1,212	50	0.03
Normal Heating Degree-Days, 1951-1980.....	5,968	19	—
Normal Cooling Degree-Days, 1951-1980.....	438	40	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	7	50	0.23
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	54	45	—
Commercial.....	34	46	—
Industrial.....	46	50	—
Transportation.....	54	49	—
Total.....	188	51	—
Personal Income, 1981 (millions).....	\$ 9,678	40	0.40
Per Capita Personal Income, 1981.....	\$10,134	28	—
Nonagricultural Employment, 1981 (thousands)...	401	42	0.44
Manufacturing Employment, 1981 (thousands)....	128	34	0.63
Shipments by Manufacturers, 1981 (millions).....	\$ 7,574	39	0.38
Motor Vehicle Registrations, 1981 (thousands)....	620	45	0.38
Licensed Drivers, 1981 (thousands).....	593	42	0.40
Vehicle Miles of Highway Travel, 1981 (millions) ..	5,575	45	0.36

Energy Production and Consumption — Rhode Island

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy and Energy Prices — Rhode Island

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Rhode Island

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

* Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Rhode Island

1971 213.2 trillion Btu. Excludes 30.5 trillion Btu of net interstate receipts of electricity.

1976 174.5 trillion Btu. Excludes 49.5 trillion Btu of net interstate receipts of electricity.

1981 131.6 trillion Btu. Excludes 47.5 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Rhode Island

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated Reserve Base (1980)

U.S. Total

Crude Oil¹ Proved Reserves

Natural Gas Proved Reserves

Uranium (U_3O_8) Reserves

Production Value

Coal Mine-Mouth

Crude Oil Wellhead

Natural Gas Wellhead

Uranium (U_3O_8) Mine-Mouth

Total Energy Consumption

Percent of U.S. Total

¹Including lease condensate.

Rhode Island

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	50
Consumption, 1981 ^{NA}	50	49	45	48
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	49	49	42	43
Residential Prices, 1980	43	34	4	4

NA-Not available.

¹Coal reserves for 1980.

Notes

- Rhode Island was one of 15 States that produced no fuel in 1981.
- Rhode Island's 1981 per capita energy consumption of 188 million Btu was the Nation's lowest.
- Only Rhode Island and the District of Columbia used less petroleum in 1981 than in 1960.
- Nearly 74 percent of the electricity generated during 1981 was from petroleum-fired plants.
- Rhode Island ranked 49th in total energy consumption during 1981.
- Rhode Island ranked 47th in total energy expenditures during 1980.

South Carolina

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	3,170	24	1.38
Area (square miles).....	31,113	40	0.86
Normal Heating Degree-Days, 1951-1980.....	2,743	43	—
Normal Cooling Degree-Days, 1951-1980.....	1,830	9	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	48	24	1.57
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	59	41	—
Commercial.....	39	37	—
Industrial.....	135	20	—
Transportation.....	78	33	—
Total.....	311	27	—
Personal Income, 1981 (millions).....	\$25,456	31	1.06
Per Capita Personal Income, 1981.....	\$ 8,030	50	—
Nonagricultural Employment, 1981 (thousands)...	1,196	26	1.31
Manufacturing Employment, 1981 (thousands)...	390	19	1.93
Shipments by Manufacturers, 1981 (millions).....	\$27,878	25	1.38
Motor Vehicle Registrations, 1981 (thousands)...	2,013	31	1.23
Licensed Drivers, 1981 (thousands).....	1,949	30	1.33
Vehicle Miles of Highway Travel, 1981 (millions) ..	23,054	25	1.49

Energy Production and Consumption — South Carolina

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — South Carolina

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — South Carolina

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — South Carolina

1971 718.3 trillion Btu. Excludes 49.8 trillion Btu of net interstate receipts of electricity.

1976 975.0 trillion Btu. Excludes 24.5 trillion Btu of net interstate shipments of electricity.

1981 964.2 trillion Btu. Excludes 21.2 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — South Carolina

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

South Carolina

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	20
Consumption, 1981	23	29	32	20
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	18	28	33	24
Residential Prices, 1980	13	16	18	35

NA-Not available.

¹Coal reserves for 1980.

Notes

- South Carolina was one of 15 States that produced no fuel in 1981.
- This State ranked 5th in the generation of electricity by nuclear power during 1981.
- South Carolina ranked 25th in total energy consumption during 1981.
- South Carolina ranked 28th in total energy expenditures during 1980.

South Dakota

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	690	45	0.30
Area (square miles).....	77,116	16	2.13
Normal Heating Degree-Days, 1951-1980.....	7,714	7	—
Normal Cooling Degree-Days, 1951-1980.....	811	26	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	120	27	0.02
Operating Natural Gas Wells, 1981.....	39	26	0.02
Operable Electrical Generating Plants, 1981.....	38	30	1.24
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	68	21	—
Commercial.....	37	42	—
Industrial.....	88	37	—
Transportation.....	87	24	—
Total.....	280	34	—
Personal Income, 1981 (millions).....	\$6,059	48	0.25
Per Capita Personal Income, 1981.....	\$8,781	39	—
Nonagricultural Employment, 1981 (thousands)....	236	48	0.26
Manufacturing Employment, 1981 (thousands)....	26	44	0.13
Shipments by Manufacturers, 1981 (millions).....	\$2,926	47	0.15
Motor Vehicle Registrations, 1981 (thousands)....	651	44	0.40
Licensed Drivers, 1981 (thousands).....	476	45	0.32
Vehicle Miles of Highway Travel, 1981 (millions) ..	6,029	43	0.39

Energy Production and Consumption — South Dakota

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — South Dakota

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — South Dakota

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — South Dakota

- 1971 240.4 trillion Btu. Excludes 56.7 trillion Btu of net interstate shipments of electricity.
- 1976 266.2 trillion Btu. Excludes 58.9 trillion Btu of net interstate shipments of electricity.
- 1981 223.2 trillion Btu. Excludes 30.1 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — South Dakota

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

South Dakota

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	25	27	45
Consumption, 1981	38	48	47	49
Value of Production, 1981	—	26	27	NA
Reserves, 1981 ¹	26	W	W	—
Energy Expenditures, 1980	40	48	47	47
Residential Prices, 1980	2	48	40	42

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- South Dakota was one of nine States with uranium reserves in 1981.
- During 1981, two-thirds of South Dakota's electricity was generated by hydropower.
- South Dakota ranked 46th in total energy consumption during 1981.
- South Dakota ranked 48th in total energy expenditures during 1980.

Tennessee

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,624	17	2.02
Area (square miles).....	42,144	34	1.16
Normal Heating Degree-Days, 1951-1980.....	3,954	37	—
Normal Cooling Degree-Days, 1951-1980.....	1,392	13	—
Operating Coal Mines, 1981.....	160	7	2.75
Operating Oil Wells, 1981.....	489	25	0.09
Operating Natural Gas Wells, 1981.....	255	21	0.13
Operable Electrical Generating Plants, 1981.....	38	30	1.24
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	73	12	—
Commercial.....	51	15	—
Industrial.....	141	17	—
Transportation.....	88	21	—
Total.....	354	17	—
Personal Income, 1981 (millions).....	\$38,969	22	1.62
Per Capita Personal Income, 1981.....	\$ 8,428	44	—
Nonagricultural Employment, 1981 (thousands)...	1,757	18	1.92
Manufacturing Employment, 1981 (thousands)...	509	14	2.52
Shipments by Manufacturers, 1981 (millions).....	\$41,258	15	2.04
Motor Vehicle Registrations, 1981 (thousands)...	3,617	15	2.20
Licensed Drivers, 1981 (thousands).....	2,838	17	1.93
Vehicle Miles of Highway Travel, 1981 (millions) ..	34,729	16	2.24

Energy Production and Consumption — Tennessee

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Tennessee

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Tennessee

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Tennessee

1971 1,158.1 trillion Btu. Excludes 175.8 trillion Btu of net interstate receipts of electricity.

1976 1,449.9 trillion Btu. Excludes 232.0 trillion Btu of net interstate receipts of electricity.

1981 1,407.7 trillion Btu. Excludes 227.5 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Tennessee

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

W: Withheld to avoid disclosure
of individual company data.

¹Including lease condensate.

Tennessee

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	17	26	25	16
Consumption, 1981	12	19	22	9
Value of Production, 1981	15	25	24	NA
Reserves, 1981 ¹	22	W	W	—
Energy Expenditures, 1980	12	18	25	10
Residential Prices, 1980	30	11	43	46

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- During 1981, 82 percent of the electricity generated in Tennessee was from coal-fired plants. Hydropower accounted for only 10 percent of the electricity generated.
- Tennessee ranked 13th in total energy consumption during 1981.
- Tennessee ranked 16th in total energy expenditures during 1980.

Texas

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	14,724	3	6.42
Area (square miles).....	266,807	2	7.37
Normal Heating Degree-Days, 1951-1980.....	2,035	47	—
Normal Cooling Degree-Days, 1951-1980.....	2,682	2	—
Operating Coal Mines, 1981.....	18	18	0.31
Operating Oil Wells, 1981.....	180,627	1	32.69
Operating Natural Gas Wells, 1981.....	40,612	1	20.42
Operable Electrical Generating Plants, 1981.....	141	4	4.60
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	61	36	—
Commercial.....	53	13	—
Industrial.....	325	3	—
Transportation.....	124	7	—
Total.....	564	4	—
Personal Income, 1981 (millions).....	\$158,462	3	6.58
Per Capita Personal Income, 1981.....	\$ 10,762	17	—
Nonagricultural Employment, 1981 (thousands)...	6,180	3	6.75
Manufacturing Employment, 1981 (thousands)...	1,115	6	5.52
Shipments by Manufacturers, 1981 (millions).....	\$180,328	2	8.94
Motor Vehicle Registrations, 1981 (thousands)....	11,461	2	6.98
Licensed Drivers, 1981 (thousands).....	9,674	2	6.58
Vehicle Miles of Highway Travel, 1981 (millions) ..	120,084	2	7.75

Energy Production and Consumption — Texas

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Texas

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Texas

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Texas

1971 6,743.0 trillion Btu. Excludes 5.5 trillion Btu of net interstate shipments of electricity.

1976 7,154.4 trillion Btu. Excludes 20.0 trillion Btu of net interstate shipments of electricity.

1981 8,383.1 trillion Btu. Excludes 84.2 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

¹Includes small amounts of electricity produced at utilities from wood and waste in all years shown.

Energy Inputs at Utilities and Petroleum Consumption by Source — Texas

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹Includes small quantities of wood and waste used in all years shown.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U₃O₈)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U₃O₈)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

Percent of U.S. Total

¹Including lease condensate.

Texas

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	9	1	1	1
Consumption, 1981	3	1	1	1
Value of Production, 1981	14	1	2	NA
Reserves, 1981 ¹	9	1	1	—
Energy Expenditures, 1980	5	1	1	2
Residential Prices, 1980	33	19	31	24

NA-Not available.

¹Coal reserves for 1980.

Notes

- Texas ranked fourth among the nine States with uranium reserves in 1981.
- The 1981 total wellhead value of crude petroleum of \$33.6 billion ranked first in the Nation and accounted for 33 percent of the U.S. total.
- All coal production in 1981 was from surface mines, and virtually all was lignite. Texas was the Nation's leader in lignite production, accounting for 64 percent of the total.
- Texas was the largest consumer of natural gas to produce electricity during 1981 and accounted for 39 percent of the Nation's electricity generated by natural gas-fired plants.
- This State ranked fourth in the generation of electricity from coal in 1981.
- Texas was the leading energy consuming State during 1981.
- Texas led the Nation in energy expenditures during 1980.

Utah

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	1,516	36	0.66
Area (square miles).....	84,899	11	2.35
Normal Heating Degree-Days, 1951-1980.....	6,555	14	—
Normal Cooling Degree-Days, 1951-1980.....	649	33	—
Operating Coal Mines, 1981.....	47	14	0.81
Operating Oil Wells, 1981.....	1,543	22	0.28
Operating Natural Gas Wells, 1981.....	226	22	0.11
Operable Electrical Generating Plants, 1981.....	56	21	1.83
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	66	27	—
Commercial.....	27	50	—
Industrial.....	137	19	—
Transportation.....	81	30	—
Total.....	311	28	—
Personal Income, 1981 (millions).....	\$12,632	36	0.52
Per Capita Personal Income, 1981.....	\$ 8,333	47	—
Nonagricultural Employment, 1981 (thousands)....	558	37	0.61
Manufacturing Employment, 1981 (thousands)....	90	39	0.45
Shipments by Manufacturers, 1981 (millions).....	\$ 9,815	36	0.49
Motor Vehicle Registrations, 1981 (thousands)....	1,100	37	0.67
Licensed Drivers, 1981 (thousands).....	889	37	0.60
Vehicle Miles of Highway Travel, 1981 (millions) ..	10,732	36	0.69

Energy Production and Consumption — Utah

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Utah

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Utah

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Utah

- 1971** 399.4 trillion Btu. Excludes 30.0 trillion Btu of net interstate receipts of electricity.
- 1976** 481.0 trillion Btu. Excludes 47.9 trillion Btu of net interstate receipts of electricity.
- 1981** 458.1 trillion Btu. Excludes 13.1 trillion Btu of net interstate receipts of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Utah

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Utah

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	15	15	17	41
Consumption, 1981	29	40	36	37
Value of Production, 1981	12	16	18	NA
Reserves, 1981 ¹	12	9	10	—
Energy Expenditures, 1980	24	38	37	38
Residential Prices, 1980	33	8	46	19

NA-Not available.

¹Coal reserves for 1980.

Notes

- Utah was one of nine States with uranium production in 1981.
- This was the only coal producing State whose entire reported production for 1981 was from underground mine operations.
- More than 92 percent of Utah's electricity generation was by coal-fired plants in 1981.
- The average 1981 wellhead price for crude petroleum of \$34.30 per barrel was the eighth lowest in the country.
- Utah ranked 37th in total energy consumption during 1981.
- Utah ranked 37th in total energy expenditures during 1980.

Vermont

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		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	515	49	0.22
Area (square miles).....	9,614	43	0.27
Normal Heating Degree-Days, 1951-1980.....	7,979	5	—
Normal Cooling Degree-Days, 1951-1980.....	283	45	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	55	22	1.80
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	68	20	—
Commercial.....	30	48	—
Industrial.....	53	45	—
Transportation.....	66	43	—
Total.....	217	47	—
Personal Income, 1981 (millions).....	\$4,499	51	0.19
Per Capita Personal Income, 1981.....	\$8,735	40	—
Nonagricultural Employment, 1981 (thousands)...	204	50	0.22
Manufacturing Employment, 1981 (thousands)....	51	42	0.25
Shipments by Manufacturers, 1981 (millions)	\$3,645	43	0.18
Motor Vehicle Registrations, 1981 (thousands)....	366	49	0.22
Licensed Drivers, 1981 (thousands).....	349	49	0.24
Vehicle Miles of Highway Travel, 1981 (millions) ..	3,835	49	0.25

Energy Production and Consumption — Vermont

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value

Expenditures for Energy and Energy Prices — Vermont

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Vermont

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

*Less than \$500,000.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Vermont

1971 90.0 trillion Btu. Excludes 23.1 trillion Btu of net interstate receipt of electricity.

1976 134.4 trillion Btu. Excludes 7.1 trillion Btu of net interstate shipments of electricity.

1981 120.5 trillion Btu. Excludes 8.6 trillion Btu of net interstate shipments of electricity.

* Less than 0.5 percent.

¹Includes small amounts of electricity produced at utilities from wood and waste in 1981.

Energy Inputs at Utilities and Petroleum Consumption by Source — Vermont

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

¹ Includes small quantities of wood and waste used in 1981.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Vermont

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	48
Consumption, 1981	48	50	49	50
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	48	50	49	49
Residential Prices, 1980	43	13	1	23

NA-Not available.

¹Coal reserves for 1980.

Notes

- Vermont was one of 15 States that produced no fuel in 1981.
- Vermont was one of five States in which nuclear power was the principal fuel source for electricity generation during 1981. About 78 percent of the electricity generated was from nuclear plants.
- The average price of \$6.22 per thousand cubic feet for natural gas consumed was the highest in the United States in 1981.
- This State ranked 47th in per capita energy consumption in 1981.
- Vermont ranked 51st in total energy consumption during 1981.
- Vermont ranked 51st in total energy expenditures during 1980.

Virginia

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	5,425	14	2.37
Area (square miles).....	40,767	36	1.13
Normal Heating Degree-Days, 1951-1980.....	4,327	35	—
Normal Cooling Degree-Days, 1951-1980.....	1,093	17	—
Operating Coal Mines, 1981.....	700	4	12.05
Operating Oil Wells, 1981.....	11	31	*
Operating Natural Gas Wells, 1981.....	288	20	0.14
Operable Electrical Generating Plants, 1981.....	44	26	1.44
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	61	34	—
Commercial.....	48	21	—
Industrial.....	73	41	—
Transportation.....	90	20	—
Total.....	272	38	—
Personal Income, 1981 (millions).....	\$56,267	11	2.34
Per Capita Personal Income, 1981.....	\$10,372	21	—
Nonagricultural Employment, 1981 (thousands)...	2,161	13	2.36
Manufacturing Employment, 1981 (thousands)...	414	18	2.05
Shipments by Manufacturers, 1981 (millions).....	\$35,910	19	1.78
Motor Vehicle Registrations, 1981 (thousands)....	3,929	13	2.39
Licensed Drivers, 1981 (thousands).....	3,570	12	2.43
Vehicle Miles of Highway Travel, 1981 (millions) ..	38,432	13	2.48

* Represents small, non-zero value.

Energy Production and Consumption — Virginia

Note: Charts are scaled to represent approximately equal Btu content.

* Represents small, non-zero value.

Expenditures for Energy and Energy Prices — Virginia

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Virginia

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Virginia

1971 1,240.8 trillion Btu. Excludes 67.0 trillion Btu of net interstate receipts of electricity.

1976 1,310.8 trillion Btu. Excludes 99.7 trillion Btu of net interstate receipts of electricity.

1981 1,297.0 trillion Btu. Excludes 178.7 trillion Btu of net interstate receipts of electricity.

* Less than 0.5 percent.

Energy Inputs at Utilities and Petroleum Consumption by Source — Virginia

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

* Represents small, non-zero value.

¹ Including lease condensate.

Virginia

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	6	31	23	23
Consumption, 1981	25	15	30	15
Value of Production, 1981	5	31	23	NA
Reserves, 1981 ¹	17	W	W	—
Energy Expenditures, 1980	17	14	27	11
Residential Prices, 1980	4	22	15	15

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Virginia is one of five States in which nuclear power was the principal energy source for electricity generation during 1981.
- About 48 percent of the electricity generated in Virginia during 1981 was from nuclear-powered plants.
- The average mine price of \$34.96 per short ton of coal was the fourth highest in the Nation in 1981.
- One of three States that produced more than three-fourths of the coal from underground operations in 1981.
- Virginia ranked 16th in total energy consumption during 1981.
- Virginia ranked 13th in total energy expenditures during 1980.

Washington

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,220	20	1.84
Area (square miles).....	68,139	20	1.88
Normal Heating Degree-Days, 1951-1980.....	5,637	24	—
Normal Cooling Degree-Days, 1951-1980.....	175	49	—
Operating Coal Mines, 1981.....	5	23	0.09
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	66	14	2.15
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	90	1	—
Commercial.....	59	7	—
Industrial.....	147	16	—
Transportation.....	96	15	—
Total.....	392	11	—
Personal Income, 1981 (millions).....	\$47,546	18	1.98
Per Capita Personal Income, 1981.....	\$11,267	11	—
Nonagricultural Employment, 1981 (thousands)...	1,612	21	1.76
Manufacturing Employment, 1981 (thousands)....	303	22	1.50
Shipments by Manufacturers, 1981 (millions)	\$36,790	18	1.82
Motor Vehicle Registrations, 1981 (thousands)....	3,477	16	2.12
Licensed Drivers, 1981 (thousands).....	2,733	18	1.86
Vehicle Miles of Highway Travel, 1981 (millions) ..	30,268	18	1.95

Energy Production and Consumption — Washington

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Washington

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Washington

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Washington

- 1971 1,443.5 trillion Btu. Excludes 217.6 trillion Btu of net interstate shipments of electricity.
- 1976 1,774.1 trillion Btu. Excludes 368.5 trillion Btu of net interstate shipments of electricity.
- 1981 1,882.5 trillion Btu. Excludes 228.2 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Washington

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

W: Withheld to avoid disclosure of individual company data.

¹Including lease condensate.

Washington

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	20	None	None	6
Consumption, 1981	31	17	34	8
Value of Production, 1981	W	—	—	NA
Reserves, 1981 ¹	20	None	W	—
Energy Expenditures, 1980	34	17	26	31
Residential Prices, 1980	14	24	7	51

NA-Not available.

¹Coal reserves for 1980.

W-Withheld to avoid disclosure of individual company data.

Notes

- Energy consumption during 1981 was higher than the 1980 level in seven States. Washington, with a 6.8 percent increase, ranked second.
- This State was the leader in generation of electricity by hydropower during 1981. The 94 billion kilowatt-hours generated was 36 percent of the total hydroelectric generation in the United States.
- Washington was one of nine States that produced uranium in 1981.
- All coal production in this State during 1981 was from surface mines.
- Per capita energy consumption in the residential sector in Washington was the highest in the Nation in 1981.
- Washington ranked 12th in total energy consumption during 1981.
- Washington ranked 23rd in total energy expenditures during 1980.

West Virginia

		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	1,946	34	0.85
Area (square miles).....	24,231	41	0.67
Normal Heating Degree-Days, 1951-1980.....	5,250	27	—
Normal Cooling Degree-Days, 1951-1980.....	796	27	—
Operating Coal Mines, 1981.....	1,060	2	18.25
Operating Oil Wells, 1981.....	14,700	10	2.66
Operating Natural Gas Wells, 1981.....	27,200	2	13.68
Operable Electrical Generating Plants, 1981.....	22	42	0.72
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	70	17	—
Commercial.....	40	35	—
Industrial.....	210	6	—
Transportation.....	74	38	—
Total.....	393	10	—
Personal Income, 1981 (millions).....	\$16,336	35	0.68
Per Capita Personal Income, 1981.....	\$ 8,395	46	—
Nonagricultural Employment, 1981 (thousands)...	629	34	0.69
Manufacturing Employment, 1981 (thousands)....	112	37	0.55
Shipments by Manufacturers, 1981 (millions).....	\$11,928	35	0.59
Motor Vehicle Registrations, 1981 (thousands)....	1,390	34	0.85
Licensed Drivers, 1981 (thousands).....	1,488	34	1.01
Vehicle Miles of Highway Travel, 1981 (millions) ..	10,440	37	0.67

Energy Production and Consumption — West Virginia

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — West Virginia

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — West Virginia

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — West Virginia

1971 991.2 trillion Btu. Excludes 205.4 trillion Btu of net interstate shipments of electricity.

1976 1,258.4 trillion Btu. Excludes 443.3 trillion Btu of net interstate shipments of electricity.

1981 1,252.2 trillion Btu. Excludes 487.1 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — West Virginia

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

Crude Oil¹
Proved Reserves

Natural Gas
Proved Reserves

Uranium (U₃O₈)
Reserves

Production Value

Coal
Mine-Mouth

Crude Oil
Wellhead

Natural Gas
Wellhead

Uranium (U₃O₈)
Mine-Mouth

Total Energy Consumption

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

West Virginia

State Ranking

Coal

Petroleum

Natural Gas

Electricity

	Coal	Petroleum	Natural Gas	Electricity
Production, 1981	2	24	11	11
Consumption, 1981	6	36	31	34
Value of Production, 1981	2	24	9	NA
Reserves, 1981 ¹	4	22	12	—
Energy Expenditures, 1980	7	34	31	34
Residential Prices, 1980	3	15	25	38

NA-Not available.

¹Coal reserves for 1980.

Notes

- One of three States that produced more than three-fourths of the coal from underground operations in 1981. About eight out of every 10 tons of coal produced was from underground mines.
- Average coal production of 11.12 short tons per miner per day was the lowest in the Nation.
- Wellhead value for natural gas averaged \$3.00 per thousand cubic feet during 1981. This was the third highest average value in the United States.
- Wellhead value of crude petroleum in 1981 of \$36.63 per barrel was the highest average of any State.
- This State was one of only three States whose average crude petroleum production during 1981 was less than one barrel per well per day.
- West Virginia ranked 33rd in total energy consumption during 1981.
- West Virginia ranked 34th in total energy expenditures during 1980.

Wisconsin

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		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	4,740	16	2.07
Area (square miles).....	56,153	26	1.55
Normal Heating Degree-Days, 1951-1980.....	7,665	8	—
Normal Cooling Degree-Days, 1951-1980.....	518	35	—
Operating Coal Mines, 1981.....	0	—	0
Operating Oil Wells, 1981.....	0	—	0
Operating Natural Gas Wells, 1981.....	0	—	0
Operable Electrical Generating Plants, 1981.....	136	7	4.44
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	69	18	—
Commercial.....	41	32	—
Industrial.....	94	34	—
Transportation.....	68	42	—
Total.....	273	37	—
Personal Income, 1981 (millions).....	\$47,617	17	1.98
Per Capita Personal Income, 1981.....	\$10,046	29	—
Nonagricultural Employment, 1981 (thousands)...	1,920	16	2.10
Manufacturing Employment, 1981 (thousands)....	543	12	2.69
Shipments by Manufacturers, 1981 (millions)	\$54,723	12	2.71
Motor Vehicle Registrations, 1981 (thousands)....	3,302	19	2.01
Licensed Drivers, 1981 (thousands).....	3,027	16	2.06
Vehicle Miles of Highway Travel, 1981 (millions) ..	33,611	17	2.17

Energy Production and Consumption — Wisconsin

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Wisconsin

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Wisconsin

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Wisconsin

1971 1,330.4 trillion Btu. Excludes 11.2 trillion Btu of net interstate shipments of electricity.

1976 1,378.4 trillion Btu. Excludes 8.1 trillion Btu of net interstate shipments of electricity.

1981 1,263.8 trillion Btu. Excludes 27.9 trillion Btu of net interstate receipts of electricity.

¹Includes small amounts of electricity produced at utilities from wood and waste in 1981.

Energy Inputs at Utilities and Petroleum Consumption by Source — Wisconsin

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

¹Includes small quantities of wood and waste used in 1981.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Coal Demonstrated
Reserve Base (1980)

U.S. Total

472,714
Million Short Tons

Crude Oil¹
Proved Reserves

31,006
Million Barrels

Natural Gas
Proved Reserves

209,434
Billion Cubic Feet

Uranium (U_3O_8)
Reserves

205
Thousand Short Tons

Production Value

Coal
Mine-Mouth

\$21,522 Million

Crude Oil
Wellhead

\$100,465 Million

Natural Gas
Wellhead

\$39,562 Million

Uranium (U_3O_8)
Mine-Mouth

\$1,239 Million

Total Energy Consumption

74,014 Trillion Btu

0 5 10 15 20

Percent of U.S. Total

¹Including lease condensate.

Wisconsin

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	None	None	None	24
Consumption, 1981	15	21	14	21
Value of Production, 1981	—	—	—	NA
Reserves, 1981 ¹	None	None	None	—
Energy Expenditures, 1980	15	20	12	20
Residential Prices, 1980	40	40	23	27

NA-Not available.

¹Coal reserves for 1980.

Notes

- Wisconsin was one of 15 States that produced no fuel in 1981.
- This State ranked 13th in generation of electricity by nuclear power and 15th in generation of electricity by hydropower during 1981.
- Two-thirds of the State's electricity generation was from coal-fired plants in 1981.
- Wisconsin ranked 20th in total energy consumption during 1981.
- Wisconsin ranked 19th in total energy expenditures during 1980.

Wyoming

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		Rank	Percent of U.S. Total
Population, 1981 (thousands).....	490	50	0.21
Area (square miles).....	97,809	9	2.70
Normal Heating Degree-Days, 1951-1980.....	8,023	4	—
Normal Cooling Degree-Days, 1951-1980.....	310	43	—
Operating Coal Mines, 1981.....	98	10	1.69
Operating Oil Wells, 1981.....	11,574	12	2.09
Operating Natural Gas Wells, 1981.....	1,243	14	0.63
Operable Electrical Generating Plants, 1981.....	25	41	0.82
Per Capita Energy Use, 1981 (million Btu)			
Residential.....	65	28	—
Commercial.....	51	14	—
Industrial.....	491	2	—
Transportation.....	180	2	—
Total.....	786	2	—
Personal Income, 1981 (millions).....	\$ 5,771	49	0.24
Per Capita Personal Income, 1981.....	\$11,778	6	—
Nonagricultural Employment, 1981 (thousands)...	224	49	0.24
Manufacturing Employment, 1981 (thousands)....	10	51	0.05
Shipments by Manufacturers, 1981 (millions).....	\$ 3,164	46	0.16
Motor Vehicle Registrations, 1981 (thousands)....	510	47	0.31
Licensed Drivers, 1981 (thousands).....	363	48	0.25
Vehicle Miles of Highway Travel, 1981 (millions) ..	5,222	47	0.34

Energy Production and Consumption — Wyoming

Note: Charts are scaled to represent approximately equal Btu content.

Expenditures for Energy and Energy Prices — Wyoming

Total Energy Expenditures, 1970-1980

Energy Prices by Sector and Fuel Source, 1980

Expenditures for Energy by Source — Wyoming

Expenditures, Excluding Fuel Costs for Electricity Generation

Expenditures, Including Fuel Costs for Electricity Generation¹

¹Except nuclear power and wood and waste expenditures for electricity generation, if any.

Energy Consumption by Source, Excluding Net Interstate Sales of Electricity — Wyoming

1971 299.3 trillion Btu. Excludes 31.6 trillion Btu of net interstate shipments of electricity.

1976 429.4 trillion Btu. Excludes 113.0 trillion Btu of net interstate shipments of electricity.

1981 595.7 trillion Btu. Excludes 210.4 trillion Btu of net interstate shipments of electricity.

Energy Inputs at Utilities and Petroleum Consumption by Source — Wyoming

Energy Inputs at Electric Utilities

Petroleum Consumption by Product Source

* Less than 0.5 percent.

Energy Reserves, Production Value, and Consumption, 1981

Reserves

Production Value

Total Energy Consumption

¹Including lease condensate.

Wyoming

State Ranking

Coal

Petroleum

Natural Gas

Electricity

Production, 1981	3	6	6	29
Consumption, 1981	14	39	40	42
Value of Production, 1981	6	6	5	NA
Reserves, 1981 ¹	2	6	7	—
Energy Expenditures, 1980	26	40	41	50
Residential Prices, 1980	41	36	45	47

NA-Not available.

¹Coal reserves for 1980.

Notes

- Wyoming ranked second in 1981 among the nine States with uranium reserves.
- Per capita energy consumption of 786 million Btu was the second highest rate in 1981.
- Wyoming was second only to Alaska in per capita energy consumption in the transportation sector in 1981.
- The wellhead value for crude petroleum of \$32.49 was the fourth lowest in the Nation for 1981.
- The average 9.86 short tons of coal produced per miner per hour was the second highest State productivity average during 1981.
- Wyoming ranked 38th in total energy consumption during 1981.
- Wyoming ranked 41st in total energy expenditures during 1980.

■ Glossary

This section provides definitions for products and terms used in the *State Energy Overview*. For more detailed definitions, refer to the source documents shown in the Data Sources section.

Aviation Fuel. Includes all special grades of gasoline for use in aviation reciprocating engines, as given in American Society for Testing and Materials (ASTM) Specification D910 and both naphtha-type and kerosene-type jet fuel for use in aviation turbine engines, as given in ASTM Specification D1655.

Coal. Includes all ranks of coal: anthracite, bituminous coal (including subbituminous coal), and lignite conforming to American Society for Testing and Materials Specification D388.

Coal Consumption. A calculated number based on surveys of all electric utilities, all coal coke plants, 75 percent of the industrial and large commercial establishments, and 25 percent of the retail dealers. The remaining data on industrial and large commercial establishments are estimated based on factors updated every 5 years from a Bureau of the Census publication. The remaining data on retail dealers are estimated based on the balance of supply and disposition.

Coal Demonstrated Reserve Base. Known in-place coals of all rank that are technically and economically minable as of January 1, 1980. The demonstrated reserve base includes measured and indicated coal resources. (See **Indicated Resources, Coal**; and **Measured Resources, Coal**.) It is estimated that at least one-half of the known in-place coals can be recovered.

Coal Production. The quantity of coal, whether raw, crushed, screened, or mechanically cleaned, that is disposed from a mining operation either on a first-sale basis, consumed at the mining operation, transferred to a parent or subsidiary company, or stockpiled.

Coal Production Value. Calculated by multiplying coal production by the average free on board (f.o.b.) mine price. Does not include output of mines that produced less than 10,000 short tons of coal during 1981. The total output of these small mines accounted for approximately 1 percent of total production.

Coal Reserve/Production Ratio. Calculated by dividing one-half of the 1980 coal demonstrated reserve base by 1981 coal production.

Glossary

Commercial Sector. Energy consumed by nonmanufacturing business establishments. Included are motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises, as well as health, social, and educational institutions and the energy consumed by Federal, State, and local governments.

Cooling Degree-Days. (See **Degree-Days.**)

Crude Oil. A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. In this report, crude oil includes lease condensate. (See **Lease Condensate.**)

Crude Oil, Proved Reserves. The estimated quantities of all liquids statistically defined as crude oil and lease condensate which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic operating conditions as of December 31, 1981. (See **Lease Condensate Proved Reserves.**)

Crude Oil Reserve/Production Ratio. Calculated by dividing the 1981 proved reserves of crude oil (including lease condensate) by 1981 crude oil production (including lease condensate).

Crude Oil Wellhead Production Value. The total value at the wells of crude oil (including lease condensate) produced in 1981 as reported by Independent Petroleum Association of America in *The Oil Producing Industry in Your State-1982*.

Crude Petroleum. (See **Crude Oil.**)

Degree-Days. Relative measurements of outdoor air temperature. Cooling degree-days are defined as deviations of the mean daily temperature at a sampling station above a base temperature equal to 65 degrees Fahrenheit. Heating degree-days are deviations of the mean daily temperature below 65 degrees Fahrenheit. For example, if a weather station recorded a mean daily temperature of 78 degrees Fahrenheit, cooling degree-days for that station would be 13 (and heating degree-days, 0). A weather station recording a mean daily temperature of 40 degrees Fahrenheit would report 25 heating degree-days (and 0 cooling degree-days). Temperature information recorded at more than 8,000 weather stations is used to calculate degree-days for State climatic divisions which are then weighted by population and combined to yield degree-day readings for each State.

Glossary

Distillate Fuel Oil. A light fuel oil distilled during the refinery process. Included are No. 1 and No. 2 heating oil, diesel oils, and No. 4 fuel oil, which conform to either ASTM Specification D396 or D975. Products are used primarily for space heating and on- and off-highway diesel engine fuel, including railroad engine fuel and agricultural fuel.

Electricity Consumption. Electricity sales by electric utilities to ultimate consumers and industrial consumption of autogen-erated hydropower. This is gross electricity production minus powerplant use, minus transmission and distribution losses, plus imports, and minus exports.

Electricity Production. Net electricity output (gross electricity measured at generator terminals minus powerplant use). Includes electricity generated by public and privately-owned electric utilities and industrial autogeneration of hydropower only.

Energy Expenditures, Excluding Expenditures for Fuels Used in Electricity Generation. Total expenditures by ultimate consumers for energy consumed in each of the four major economic sectors: residential, commercial, industrial, and transportation. Included are expenditures for all major energy sources: coal, natural gas, petroleum (refined products), and electricity. Excluded are expenditures by electric utilities for fuels consumed to generate electricity.

Energy Expenditures, Including Expenditures for Fuels Used in Electricity Generation. Total expenditures by ultimate consumers for fuels consumed in each of the four major economic sectors: residential, commercial, industrial, and transportation, plus expenditures by the electric utilities for fuels used to generate electricity. Excluded are expenditures for electricity sales. There are no fuel-associated expenditures for hydropower and geothermal power.

Energy Prices. Energy prices are quantity-weighted averages for each major energy source: coal, natural gas, petroleum (refined products), electricity, and all energy used by ultimate consumers in each of the four major end-use sectors (residential, commercial, industrial, and transportation). Average energy prices for each source in each sector are derived by dividing total expenditures (in dollars) by total quantities consumed (in million Btu).

Free on Board (f.o.b.). A term used in sales price quotations meaning, in general, that the seller assumes all responsibility and costs up to the specific point of delivery and that the buyer takes over responsibility and costs at that same point.

Heating Degree-Days. (See Degree-Days.)

Glossary

Indicated Resources, Coal. Coal resources for which estimates of rank and quantity have been computed partly from sample analyses and measurements and partly from reasonable geologic projections. (See **Coal Demonstrated Reserve Base.**)

Industrial Sector. Energy consumed by manufacturing, construction, mining, agriculture, fishing, and forestry establishments.

Lease Condensate. A natural gas liquid recoverable from gas-well gas in lease separators or field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. Generally, lease condensate is blended with crude oil for refining.

Lease Condensate Proved Reserves. The volumes (as of December 31, 1981) of lease condensate expected to be recoverable in future years in conjunction with the production of natural gas based on the recovery efficiency of lease and/or field separation facilities installed. These reserves are included in crude oil proved reserves.

Licensed Drivers. The total number of licensed drivers on December 31, 1981, as reported by the States to the Federal Highway Administration.

Manufacturing Employment. Same as nonagricultural employment but limited to Standard Industrial Classification (S.I.C.) manufacturing industries S.I.C. 20 through S.I.C. 39 (See **Nonagricultural Employment.**)

Measured Resources, Coal. Coal resources for which estimates of the quality and quantity have been computed, within a margin of error of less than 20 percent, by analyzing measurements taken from closely spaced geologically well-known sample sites. (See **Coal Demonstrated Reserve Base.**)

Motor Vehicle Registrations. The total number of automobiles, buses, trucks, and motorcycles as reported for the calendar year by the States to the Federal Highway Administration.

Natural Gas. A mixture of hydrocarbon compounds and small quantities of nonhydrocarbons existing in the gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.

Natural Gas Consumption. Quantities of natural gas, including supplemental gaseous supplies, delivered to ultimate consumers. Included is gas consumed by pipeline compressors, in lease operations, and at natural gas processing plants.

Glossary

Natural Gas Production. Marketed production is gross withdrawals of natural gas from gas and oil wells less gas used for repressuring and vented and flared gas. It includes nonhydrocarbon gases and the volume of gas converted to natural gas plant liquids.

Natural Gas Production Value. Imputed wellhead value of marketed production excluding nonhydrocarbon gases. Each State is requested to report the value of marketed production (excluding nonhydrocarbon gases). If the total value is not available, the States are to report the available value and corresponding production figure in order to derive the imputed value of marketed production.

Natural Gas Proved Reserves. In this report, natural gas proved reserves are the estimates for wet gas after lease separation. These reserves are the estimated quantities of natural gas that analyses of geologic and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions as of December 31, 1981. Excluded are quantities of natural gas proved reserves estimated to be recovered as lease condensate. (See **Lease Condensate, Proved Reserves.**)

Natural Gas Reserves/Production Ratio. Calculated by dividing the 1981 natural gas proved reserves by 1981 natural gas production.

Nonagricultural Employment. The number of persons on nonagricultural payrolls, excluding the Armed Forces, self-employed, unpaid family workers, and domestic workers in households. The data, collected by the Bureau of Labor Statistics, are annual averages of 12 monthly reports. (See **Manufacturing Employment.**)

Operating Coal Mines. The number of individual mine properties for which respondents with a unique Federal identification number reported worktime data to the U.S. Department of Labor's Mine Safety and Health Administration during calendar year 1981. This mandatory survey is conducted quarterly and includes contractors working on mine properties.

Operable Electricity Generating Plants. The number of operating or operable electricity generating plants as of December 1981 reported to the Energy Information Administration by utilities.

Operating Natural Gas Wells. The number of producing natural gas and gas condensate wells as of December 31, 1981.

Glossary

Operating Oil Wells. The number of producing oil wells as of December 31, 1981. Excludes 4,536 wells beyond State limits in offshore Federal waters.

Per Capita Personal Income. Total personal income divided by the resident population as of July 1, 1981.

Personal Income. The total of wages, salaries, and other labor income, income of unincorporated enterprises, dividends, transfer payments from governments to persons (such as social security), interest, and rental income of persons. Excluded are personal contributions to social insurance such as retirement plans.

Petroleum Consumption. The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports; then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

Petroleum Production. The amount of crude oil and lease condensate produced from natural underground reservoirs. Petroleum production is generally established by measurement of volumes withdrawn from storage tanks on producing properties.

Population. The total resident population of the United States as of July 1, 1981. Included are persons in institutions and Armed Forces personnel in the United States. Excluded are U.S. citizens and Armed Forces personnel abroad.

Residential Sector. Energy consumed by private household establishments primarily for space heating, water heating, air conditioning, cooking, lighting, and clothes drying.

Residual Fuel Oil. The heavier oils that remain after lighter fuel oils and other hydrocarbons have been distilled during the refinery process. Included are No. 5 and No. 6 fuel oil that conform to ASTM Specification 395, Navy Special and Bunker C fuel oil, and acid sludge and pitch used as refinery fuel. Residual fuel oil is used primarily for electric power generation, space heating, vessel bunkering, and various industrial purposes.

Shipments by Manufacturers. The received or receivable net selling values (f.o.b. plant) of all Standard Industrial Classification (S.I.C.) manufacturing industries S.I.C. 20 through S.I.C. 39. Excludes freight and taxes of products shipped by manufacturers.

Glossary

States. Throughout the *State Energy Overview* the term "States" refers to the 50 States plus the District of Columbia. The abbreviations used are:

AL	Alabama	IL	Illinois	MT	Montana	RI	Rhode Island
AK	Alaska	IN	Indiana	NE	Nebraska	SC	South Carolina
AZ	Arizona	IA	Iowa	NV	Nevada	SD	South Dakota
AR	Arkansas	KS	Kansas	NH	New Hampshire	TN	Tennessee
CA	California	KY	Kentucky	NJ	New Jersey	TX	Texas
CO	Colorado	LA	Louisiana	NM	New Mexico	UT	Utah
CT	Connecticut	ME	Maine	NY	New York	VT	Vermont
DE	Delaware	MD	Maryland	NC	North Carolina	VA	Virginia
DC	Dist. of Columbia	MA	Massachusetts	ND	North Dakota	WA	Washington
FL	Florida	MI	Michigan	OH	Ohio	WV	West Virginia
GA	Georgia	MN	Minnesota	OK	Oklahoma	WI	Wisconsin
HI	Hawaii	MS	Mississippi	OR	Oregon	WY	Wyoming
ID	Idaho	MO	Missouri	PA	Pennsylvania	US	United States

Transportation Sector. Energy consumed to move people and commodities in both the public and private sectors. Included are military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.

United States. The 50 States and the District of Columbia.

Uranium Production. The output of uranium mills that process uranium-bearing ores and produce the uranium oxide concentrate U_3O_8 .

Uranium Production Value. Obtained by multiplying the quantity of uranium oxide (U_3O_8) produced during 1981 by a price of \$32.20 per pound. This price was compiled from a survey as of July 1, 1981, and represents an average of prices to be paid in contracts as of that date.

Uranium Reserves. Uranium deposits that, as of January 1, 1982, are minable at a forward production cost of \$30.00 per pound of U_3O_8 . The estimates are derived from drill-hole and other data made available by uranium companies.

Uranium Reserves/Production Ratio. Obtained by dividing January 1, 1982, uranium oxide (U_3O_8) reserves by 1981 uranium oxide (U_3O_8) production.

Vehicle Miles of Highway Travel. Travel in 1981 by passenger cars, motorcycles, buses, and trucks on the Interstate System, arterial rural roads, other rural roads, and urban streets as estimated by the Federal Highway Administration.

Methodology

Data development methodologies unique to the *State Energy Overview* are listed below. Methodologies used to develop data used in this report, but obtained from other reports, are not included. Reference should be made to the methodology sections of those publications.

Rounding

All computations were performed using the most exact figures available which were then rounded to the number of digits shown. Because of this independent rounding, totals shown may not equal the sum of the components shown.

Ranking

State rankings are always shown in descending order with the highest State assigned the rank of 1 and the lowest State assigned the rank of 51 (or the lowest of the number of States making up the universe). For example, 31 States had operating oil wells as of December 31, 1981. Texas ranked 1 (180,627 wells), and Virginia ranked 31 (11 wells).

In some instances, rankings were performed on data having more decimal places than are shown in this publication. Consequently, States may appear to have identical data and yet have different ranks. In the event that the most exact data resulted in a tie between two States, both States were assigned the contending rank and the next lower State was assigned a rank equal to the contending rank plus two.

In various source documents, some States were grouped into "other" categories, or data were withheld to avoid disclosure. In these instances, only those States for which data were published were ranked, and "other" States and States for which data were withheld were not included in the rankings.

Degree-days shown for the District of Columbia are the National Oceanic and Atmospheric Administration's average for Maryland. Heating and cooling degree data were not available for Alaska and Hawaii. Thus, the rankings of degree-days apply to the conterminous 48 States and the District of Columbia.

Energy expenditure rankings for coal, petroleum, and natural gas are based on total expenditures, including expenditures by electric utilities for coal, petroleum, and natural gas used to generate electricity. Electricity expenditure rankings are based on sales of electricity to ultimate consumers.

Methodology

Conversion Factors for Fuel Reserves

To meaningfully compare the Nation's coal, crude oil, natural gas, and uranium reserves, physical units of each energy source were converted to British thermal units (Btu). The factors used to make these conversions follow:

- Anthracite 25.4 million Btu/short ton
- Bituminous Coal 24.0 million Btu/short ton
- Subbituminous Coal 21.0 million Btu/short ton
- Lignite 14.0 million Btu/short ton
- Crude Oil (Including Lease Condensate) 5.8 million Btu/barrel
- Natural Gas, wet 1,091 Btu/cubic foot
- Uranium see **Uranium Reserves** below

Uranium Reserves

The Nation's 205,000-short-ton uranium reserve was converted to a Btu equivalent by assuming that the entire reserve would be used to generate electricity in a prototype nuclear powerplant as described in *Volume IX: Reactor and Fuel Cycle Descriptions* of D.O.E./NE-001: *Nuclear Proliferation and Civilian Nuclear Power*. The kilowatt-hours thus produced were then converted to Btu by a factor of 10,388 Btu/kilowatt-hour (the prevailing heat rate factor for fossil fuel steam electric plants). The cited plant is a pressurized water reactor operated at 75 percent of average capacity over a 30-year period. The cumulative U_3O_8 requirement of such a plant over a 30-year period would be 6,040 short tons per gigawatt of electricity capacity.

1982 Petroleum Consumption

Estimates of 1982 petroleum consumption for each State were made from known preliminary 1982 components and the ratio that existed in 1981 between these components and total 1981 consumption. For each State, preliminary 1982 consumption data were available for motor gasoline, residual fuel oil, distillate fuel oil, and liquefied petroleum gases and ethane. These data were summed and assumed to relate to the 1982 total in the same ratio that the sum of the same components in 1981 were to total 1981 consumption in each State. The known preliminary 1982 components represented 81 percent of total 1981 consumption.

Data Sources

	Production				Consumption				Value of Production and Reserves				Price & Expenditure Data

Weekly Coal Production, DOE/EIA-0218 (83/05) Quarterly Coal Report, DOE/EIA-0121 (82/4Q) Form EIA-7A, "Coal Production Report"
Petroleum Supply Annual, DOE/EIA-0108 (81) and unpublished DOE/EIA data The Oil Producing Industry in Your State - 1982, Independent Petroleum Association of America
Natural Gas Annual, 1980 DOE/EIA-0131 (80) Natural Gas Annual, 1981 DOE/EIA-0131 (81) Natural Gas Monthly (Dec. 1982) DOE/EIA-0130 (82/12)
"Monthly Power Plant Report," DOE/EIA Form 759
State Energy Data Report, 1960 through 1981 DOE/EIA-0214 (81) and unpublished DOE/EIA data
Demonstrated Reserve Base of Coal in the United States on January 1, 1980, DOE/EIA-0180 (80)
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report DOE/EIA-0216 (81)
Statistical Data of the Uranium Industry, January 1, 1982 DOE/GJO-100 (82)
Energy Price and Expenditure Data Report, 1970-1980 (State and U.S. Total) DOE/EIA-0376

Data Sources

	Popu- lation	Area	Degree- Days	Operating			Per- Capita Energy Use	Personal Income and Per-Capita Income	Employ- ment Data	Value of Mfr's Ship- ments	Vehicle, Driver, & Highway Data
				Coal Mines	Oil & Gas Wells	Electric Plants					
Dept. of Commerce, Bureau of the Census, <i>Population Estimates and Projections</i> Series P-25, No. 927											
Dept. of Commerce, Bureau of the Census, <i>Statistical Abstract of the United States</i> , 1982-83											
Dept. of Commerce, National Oceanic and Atmospheric Administration, <i>Historical</i> <i>Climatology Series 5-1 and 5-2</i>											
Dept. of Labor, Mine Safety and Health Administration, <i>Injury Experience in</i> <i>Coal Mining</i> , 1981 Information Report IR1138											
Gulf Publishing Company <i>World Oil</i> , February 15, 1982 Natural Gas Annual, DOE/EIA-0131 (81)											
<i>Electric Power Annual</i> , DOE/EIA-0348 (81)											
<i>State Energy Data Report</i> , DOE/EIA-0214 (81)											
Dept. of Commerce, News Release BEA 83-21, unpublished D.O.C. data											
Dept. of Labor, Bureau of Labor Statistics, <i>Employment and Earnings</i> , May, 1983											
Dept. of Commerce, 1980 Annual Survey of Manufacturers, <i>Origin of Manufactured</i> <i>Products</i> , May 1983											
Dept. of Transportation, <i>Highway</i> <i>Statistics</i> , 1981											

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