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**Geothermal Resource Base of the World:
A Revision of the Electrical Power
Research Institute's Estimate**

University of California

LOS ALAMOS SCIENTIFIC LABORATORY

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**M. J. Aldrich
A. W. Laughlin
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GEOTHERMAL RESOURCE BASE OF THE WORLD:
A REVISION OF THE ELECTRICAL POWER RESEARCH INSTITUTE'S ESTIMATE

by

M. J. Aldrich
A. W. Laughlin
D. T. Gambill

ABSTRACT

Review of the Electrical Power Research Institute's (EPRI) method for calculating the geothermal resource base of a country shows that modifications are needed for several of the assumptions used in the calculation. These modifications include: (1) separating geothermal belts into volcanic types with a geothermal gradient of $50^{\circ}\text{C}/\text{km}$ and complex types in which 80% of the area has a temperature gradient of $30^{\circ}\text{C}/\text{km}$ and 20% has a gradient of $45^{\circ}\text{C}/\text{km}$, (2) using the actual mean annual temperature of a country rather than an assumed 15°C average ambient temperature, and (3) making separate calculations for the resource stored in water/brine and that stored in rock. Comparison of this method (Revised EPRI) for calculating a geothermal resource base with other resource base estimates made from a heat flow map of Europe indicates that the technique yields reasonable values.

The calculated geothermal resource bases, stored in water and rock to a depth of 5 km, for each country in the world are given. Approximately five times as much energy is stored in rock as is stored in water.

I. INTRODUCTION

The Electrical Power Research Institute (EPRI 1978) report "Geothermal Energy Prospects for the Next 50 Years" assesses the geothermal potential of the member nations of the World Energy Conference and a number of nonmember nations. It includes calculated estimates of each country's (1) geothermal

resource base, (2) hydrothermal electricity potential, (3) projected non-electric applications of geothermal energy, and (4) worldwide geothermal energy use.

In this paper the methodology of the geothermal resource base calculations is reviewed, and several of the assumptions made in the EPRI report are modified. The study is part of a review and augmentation of the report requested by the Technical Panel on Geothermal Energy, United Nations Conference on New and Renewable Sources of Energy, at its first meeting in December 1979.

II. RESOURCE BASE CALCULATIONS

A. General Methodology

As has been discussed recently by Muffler and Cataldi (1977, pp. 155-162), there are four general methods for assessing the magnitude of geothermal resources: (1) surface thermal flux, (2) volume, (3) planar fracture, and (4) magmatic heat budget. They conclude that the volume method is most useful because "(1) it is applicable to virtually any geologic environment, (2) the required parameters can in principle be measured or estimated, (3) the inevitable errors are in part compensated, and (4) the major uncertainties (recoverability and resupply) are amenable to resolution in the foreseeable future." It is this method that is employed in the EPRI report for assessing the worldwide geothermal resource base. It should be noted, however, that this "worldwide geothermal resource" corresponds to the "accessible resource base" of Muffler and Cataldi (1977).

Although the volume method is the most useful, it is difficult to apply in a worldwide geothermal assessment. As utilized in the EPRI report, the volume method requires knowledge of geothermal gradients throughout the world and of the surface areas for which they are representative. The writers of the EPRI report divided the area of each country (A) into two parts: one fraction corresponding to the area within a geothermal belt (X) and the other corresponding to areas of "normal" (25°C/km) gradient (1-X). The portions within the geothermal belts are further divided into a high-grade fraction 0.1X assumed to have a gradient of 80°C/km and a lower-grade fraction of 0.9X with an assumed gradient of 40°C/km.

Recent advances in geology, particularly as related to plate tectonics, probably provide sufficient data for logically estimating the fractions of countries within the geothermal belts (X). Fractions characterized by

"normal" gradients (1-X) are thus reasonably well known. Similarly, large numbers of heat flow and gradient measurements made over a number of years probably document sufficiently the 25°C/km gradient used in the EPRI report for the "normal" areas. We, thus, have no serious disagreements with the accessible resource base calculated for "normal" areas.

For a number of reasons, resource calculations within the geothermal belts are open to question. First, these areas are geologically complex, which leads to large errors in estimating average gradients and the fractional area they represent.

Complex geology leads to complex hydrology, which may either mask or accentuate high heat flow. Take for example the geothermal system beneath the Jemez Mountains, New Mexico, USA. At this site the heat source is thought to be centered beneath a large resurgent dome on the west side of the 1.1-Myr-old Valles Caldera (Fig. 1). This heat source warms waters recharged

Fig. 1.
Simplified model of the Jemez Mountains geothermal system.

on the dome itself or from the high peaks making up the rim of the caldera. West of the caldera (case 1), heat flows in the volcanic and sedimentary rocks overlaying the Precambrian basement are apparently enhanced by warm waters moving up along ring faults and then down-dip away from the caldera along the Precambrian-Phanerozoic unconformable contact. Gradients as high as $274^{\circ}\text{C}/\text{km}$ have been measured in drill holes in these younger rocks and values are typically greater than $120^{\circ}\text{C}/\text{km}$. When holes are drilled into the basement rocks, gradients drop off to approximately 50 to $60^{\circ}\text{C}/\text{km}$. The reverse effect is exhibited in case 2, which holds true in the eastern portion of the Valles Caldera and on the eastern flanks beyond the rim. Here, near-surface, cold recharge water from the high peaks masks any high heat flows and gradients range from 21 to $44^{\circ}\text{C}/\text{km}$. Similar masking effects of recharge water have been reported for parts of the Long Valley Caldera, California, USA and are suspected in the vicinity of the San Francisco Peaks, Arizona, USA.

Complex hydrology also leads to extremely variable gradients within a single borehole. Reiter et al. (1976) report values of $138^{\circ}\text{C}/\text{km}$, $125^{\circ}\text{C}/\text{km}$, $95^{\circ}\text{C}/\text{km}$, and $47^{\circ}\text{C}/\text{km}$ for the 785-m-deep well, GT-1, on the west side of the Valles Caldera. The value of $47^{\circ}\text{C}/\text{km}$ was measured over the interval 640 to 720 m immediately below the Precambrian unconformity. With the exception of the $47^{\circ}\text{C}/\text{km}$ interval, gradient changes do not correlate with changes in lithology, indicating that hydrology, not lithologic variations, is responsible for the gradient changes. Similar results have been reported for areas near many other high temperature geothermal systems. Such variability within a single borehole makes averaging of gradients to a reasonable number difficult, if not impossible.

A major problem in obtaining average gradients and representative data within geothermal belts is the scarcity of data. As reported by Rowley (in preparation), there are only about 3000 geothermal wells throughout the world, of which perhaps 1500 are productive. Gradient measurements in these wells are supplemented by more conventional gradient measurements obtained for scientific purposes. Even so, the data base is small and it is difficult to either average or determine the area that the "average" represents.

B. Assumptions for Calculating Resource Base

This section reviews in detail the various assumptions (underlined) used in the EPRI (1978; pp 2-5, 2-12, 2-13) report for calculating the geothermal

resource base. Changes or modifications are made for several of the assumptions.

1. "All 'normal' areas of the world have a vertical temperature gradient of 25°C/km depth."

This assumption is considered to be reasonable; therefore, no change is suggested.

2. "There are certain geothermal belts in the world where the vertical temperature gradient is higher than normal. Either part or all of any country may lie in a geothermal belt. Let A denote the total area of a country, of which a fraction X lies in a geothermal belt. X may range from 0 to 1."

No change is suggested for this assumption. Estimates of the percent area of each country that is classified as geothermal (temperature gradient $>30^{\circ}\text{C/km}$) were made using Meidav's (1974, Fig. 4) map showing the location of geothermal regions throughout the world.

For the European countries, the Heat Flow Map of Europe compiled by Cermák and Hurtig (1979) was used to obtain a better estimate of the resource base. Heat flow values on the map were converted to gradients using an estimated thermal conductivity of $2.1 \text{ Wm}^{-1} \text{ K}^{-1}$ (Cermák 1979). The percentages of a country occurring within each heat flow contour interval were determined with a planimeter and then a weighted average temperature gradient calculated for the entire country. These average gradient values were used to compute the resource base.

3. "Of the geothermal area (XA) in a country, 90% (0.9 XA) is assumed to have a temperature gradient of 40°C/km depth and 10% (0.1 XA) is assumed to have a temperature gradient of 80°C/km."

The validity of this assumption is highly suspect since geothermal belts may be characterized by variable geology. The belts can range from simply young volcanic islands to regions with complex geology including folded and faulted mountain ranges, areas of relatively undeformed rocks, volcanic fields of different ages, rift valleys, and/or deep basins. Because of this, we define two broad types of geothermal areas.

- Volcanic. These geothermal areas are located entirely on active island arcs, ocean ridges, or over "hotspots"

(e.g., Iceland; Martinique; Cape Verde Islands). A temperature gradient of $50^{\circ}\text{C}/\text{km}$ depth is assumed for the entire area. This value was selected as a somewhat conservative average gradient since similar gradients (50 to $60^{\circ}\text{C}/\text{km}$) have been measured in the Precambrian basement rocks beneath the geologically young Valles Caldera, New Mexico, USA. Also, the heat flow data for Iceland (from the map by Cermák and Hurtig 1979) were used to calculate an average gradient of $53^{\circ}\text{C}/\text{km}$ for the island, a value that is very close to the assumed $50^{\circ}\text{C}/\text{km}$ value.

- Complex. This category includes all geothermal areas not placed in the "volcanic" category. Complex geothermal areas may have a variety of different geologic features such as folded mountains, thrust belts, volcanic fields, deep basins, and/or rift valleys (e.g., western United States, eastern China, New Zealand, eastern Africa).

Selecting a geothermal gradient for such areas is very difficult, not only because the geology within these areas is so variable but also because it varies from one area to another. In order to have some basis for selecting gradients for complex areas, a map of temperature gradients in the western United States (Kron and Heiken 1980) was statistically analyzed for the percent area of five gradient classes: ≤ 29 , 30 to 34, 35 to 39, 40 to 79, and $> 80^{\circ}\text{C}/\text{km}$. These data were combined and generalized into two classes in which 80% of the total geothermal area has a temperature gradient of $30^{\circ}\text{C}/\text{km}$ and 20% has a temperature gradient of $45^{\circ}\text{C}/\text{km}$. These two classes are assumed to be applicable to all complex type areas.

4. "The average ambient temperatures of all countries is assumed to be 15°C ."

The mean annual temperatures (T_0) of countries vary over a range of approximately 30°C (-1 to 29°C). This variation is significant, and therefore the assumption is not acceptable.

5. "For the purposes of this report, the geothermal resource base of a country is defined as the total heat contained in subsurface rocks and fluids to a depth of 3 km and at temperatures above 15°C."

The 3-km depth is changed to 5 km to conform to the requirements of the Technical Panel on Geothermal Energy, United Nations Conference on New and Renewable Sources of Energy (1979).

Compilers of the EPRI report calculated the resource base of each country to an assumed average surface temperature of 15°C. In this paper, however, the geothermal resource base is calculated to the average surface temperature of each country following the methodology of Brook et al. (1979).

6. "Four temperature classes are considered: Class 1: <100°C, Class 2: 100 to 150°C, Class 3: 150 to 250°C, Class 4: >250°C."

Classes 1 and 2 are retained because they are useful subdivisions. Resources within Class 1 are below the boiling point of water, and those within Class 2 are above the boiling point but are generally not suitable for electrical power production. Class 3 is changed to >150°C. Class 4 is eliminated since a temperature of 250°C can be reached only with the highest assumed temperature gradient (50°C/km) and at the bottom (5-km depth) of the resource base.

7. "Although the heat capacity of rock depends on lithology, porosity, and water content, an average volumetric specific heat (C_v) of 2.5 J/cm³/°C is an acceptable value for most areas."

This assumption is considered to be sufficiently accurate, but was not required in the resource base calculations made in this paper.

8. "The resource base, Q, associated with a particular temperature class is given by

$$Q = (A)(H)(C_v)(T-15) \quad , \quad (1)$$

where A denotes the area underlain by the resource, H the thickness (depth range) of the resource, C_v the volumetric specific heat of the subsurface material, and T the average temperature of the resource. Taking A in cm², H in cm, $C_v = 2.5 \text{ J/cm}^3/\text{°C}$, and T in °C.

$$Q = (2.5)(A)(H)(T-15) \text{ Joules.} \quad (2)$$

In this report separate calculations were made for the resource stored in water/brine and that stored in rock.

Resource stored in rock:

$$Q = (1-\emptyset)(C_r)(A)(H)(T_r - T_o) \text{ Joules} \quad (3)$$

where: $\emptyset$ = porosity, C_r = specific heat of rock, T_r = average temperature of resource, and T_o = mean annual temperature.

The specific heat of rock is estimated to be $2.45 \text{ J/cm}^3/\text{°C}$. This estimate is based on the average specific heat of granitic rocks at 100°C (Lindroth et al. 1971).

Resource stored in water/brine:

$$Q = (\emptyset)(C_w)(A)(H)(T_r - T_o) \text{ Joules} \quad (4)$$

where: C_w = specific heat of water/brine. The specific heat of water/brine is assumed to be $3.9 \text{ J/cm}^3/\text{°C}$, the average of a brine ($3.7 \text{ J/cm}^3/\text{°C}$) with 10% salt (Wahl 1977, p. 52) and pure water taken at $4.2 \text{ J/cm}^3/\text{°C}$.

C. Calculation of Resource Base

The resource base for each country (Appendix) was calculated using Eqs. (3) and (4) and the following data:

- Surface areas of the countries were obtained from The Statesman's Year-Book (Paxton 1979) and The Europa Year Book (1979).
- The type (volcanic or complex) and percentage of geothermal belt in each country was determined from Fig. 2. This was not done for the European countries, however, since the geothermal gradients of those countries (except Portugal and Spain) were more accurately determined from the Heat Flow Map of Europe (Cermák and Hurtig 1979).
- The mean annual temperature (T_o) of each country was determined by averaging the data from Plate I (mean temperatures in January) and Plate II (mean temperatures in July) of Haurwitz et al. (1944).
- Porosities of columns of rock within the three temperature classes were determined by using the assumption that porosity decreases uniformly with depth from 20% at the surface to 2%

Fig. 2.
Geothermal regions of the world (after Meidav, 1974, Fig. 4).

at 5 km. This assumption is based on the porosities of rock cited in Daly et al. (1966) (Table 4-4) and on the fact that sedimentary rocks crop out over 75% of the total land area (Pettijohn 1957). The average of the porosity at the top and bottom of each column was used in Eqs. (3) and (4).

III. DISCUSSION

The "Revised EPRI Method" of calculating resource base used in this paper gives only an approximation of the actual geothermal energy that may be accessible. The largest error in the calculation may come from Assumption 3 (geothermal gradient values determined or estimated for each country). For example, France has no geothermal belt, according to Fig. 2, and therefore is assumed to have an overall geothermal gradient of 25°C/km and a total resource base of 5.21×10^{23} Joules. However, using the Heat Flow Map of Europe (Cermák and Hurtig 1979), 77% of France has a gradient of 30°C/km, 14% of France a gradient of 40°C/km, and the total resource base is 6.79×10^{23} Joules. The larger base value (by 33%) is considered to be more accurate because of the better quality of gradient data that went into the calculation.

Within the complex geothermal belts, estimating the geothermal gradient is also a major problem. The geology of the belts is so variable that no single set of temperature gradients can correctly represent all of them. Also, estimating the percentage of geothermal belt in a country can be subjective. In spite of this, the "Revised EPRI Method" seems to give reasonable answers. Table I, which compares the total resource base calculated using Assumption 3 (Revised EPRI Method) with the total base calculated using temperature gradients and areas determined from the Heat Flow Map of Europe (Map Method), shows that the differences between the total resource base values are small.

A very important factor not included in the resource base calculations is the resupply of heat to geothermal systems. Muffler and Cataldi (1977, p. 197) point out that "resupply heat can be greater than 10% of the recoverable heat calculated from storage above" and therefore should not be neglected.

TABLE I
COMPARISON OF RESOURCE BASE CALCULATION METHODS

Country	Method	Percent of Country in Geothermal Belt	Total Resource Base (J)	Percent Difference
Greece	Revised EPRI	0.50	1.22×10^{23}	4
	Map		1.17×10^{23}	
Italy	Revised EPRI	0.50	3.52×10^{23}	4
	Map		3.65×10^{23}	
Turkey	Revised EPRI	1.00	1.00×10^{24}	9
	Map		1.10×10^{24}	

IV. CONCLUSIONS

- Comparison of geothermal resource base estimates, calculated with the Revised EPRI Method and those calculated from more accurate and complete map data, indicates that the Revised EPRI Method yields good estimates in most instances.
- The EPRI Method yields a total geothermal resource base of 4.32×10^{25} J for 107 countries. The Revised EPRI Method estimate for these same countries is 1.29×10^{26} J.
- The Revised EPRI Method yields a total world-wide estimate of 1.46×10^{26} J to a depth of 5 km.
- The Revised EPRI Method indicates that the total world-wide geothermal resource base stored in rock (1.25×10^{26} J) is about five times greater than the amount stored in water (0.21×10^{26} J).

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APPENDIX

CALCULATED WORLDWIDE GEOTHERMAL RESOURCE

Afganistan

Area of Country $6.36 \times 10^5 \text{ km}^2$
Mean Annual Temperature 23.0°C
Fraction of Country in Geothermal Belt 0.500
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.23×10^{23}	3.14×10^{23}	1.38×10^{23}	$6.75 \times 10^{23} \text{ J}$
Resource Stored in Water	6.31×10^{22}	3.66×10^{22}	1.06×10^{22}	$1.10 \times 10^{23} \text{ J}$
Total	2.86×10^{23}	3.51×10^{23}	1.49×10^{23}	$7.86 \times 10^{23} \text{ J}$

Albania

Area of Country $2.87 \times 10^4 \text{ km}^2$
Mean Annual Temperature 16.0°C
100% of the Country has a Gradient of 20°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.50×10^{22}	5.87×10^{21}	0	$2.09 \times 10^{22} \text{ J}$
Resource Stored in Water	3.43×10^{21}	3.36×10^{20}	0	$3.76 \times 10^{21} \text{ J}$
Total	1.84×10^{22}	6.20×10^{21}	0	$2.46 \times 10^{22} \text{ J}$

Algeria

Area of Country $2.38 \times 10^6 \text{ km}^2$
Mean Annual Temperature 23.0°C
Fraction of Country in Geothermal Belt 0.020
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.40×10^{23}	1.31×10^{24}	2.07×10^{22}	$2.27 \times 10^{24} \text{ J}$
Resource Stored in Water	2.56×10^{23}	1.22×10^{23}	1.59×10^{21}	$3.80 \times 10^{23} \text{ J}$
Total	1.20×10^{24}	1.43×10^{24}	2.23×10^{22}	$2.65 \times 10^{24} \text{ J}$

APPENDIX CONTINUED

American Samoa

Area of Country $1.97 \times 10^2 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.74×10^{19}	5.26×10^{19}	2.40×10^{20}	$3.30 \times 10^{20} \text{ J}$
Resource Stored in Water	1.26×10^{19}	1.24×10^{19}	2.68×10^{19}	$5.18 \times 10^{19} \text{ J}$
Total	5.00×10^{19}	6.50×10^{19}	2.67×10^{20}	$3.82 \times 10^{20} \text{ J}$

Andorra

Area of Country $4.64 \times 10^2 \text{ km}^2$
 Mean Annual Temperature 13.0°C
 50% of the Country has a Gradient of $35^\circ\text{C}/\text{km}$
 50% of the Country has a Gradient of $40^\circ\text{C}/\text{km}$

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.26×10^{20}	1.73×10^{20}	2.55×10^{20}	$5.54 \times 10^{20} \text{ J}$
Resource Stored in Water	3.80×10^{19}	2.80×10^{19}	1.93×10^{19}	$8.53 \times 10^{19} \text{ J}$
Total	1.64×10^{20}	2.01×10^{20}	2.74×10^{20}	$6.39 \times 10^{20} \text{ J}$

Angola

Area of Country $1.25 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.87×10^{23}	7.22×10^{23}	1.81×10^{22}	$1.23 \times 10^{24} \text{ J}$
Resource Stored in Water	1.35×10^{23}	7.07×10^{22}	6.14×10^{20}	$2.06 \times 10^{23} \text{ J}$
Total	6.22×10^{23}	7.92×10^{23}	1.87×10^{22}	$1.43 \times 10^{24} \text{ J}$

Argentina

Area of Country $2.78 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 17.0°C
 Fraction of Country in Geothermal Belt 0.300
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.06×10^{24}	1.29×10^{24}	2.97×10^{23}	$2.64 \times 10^{24} \text{ J}$
Resource Stored in Water	2.85×10^{23}	1.27×10^{23}	2.21×10^{22}	$4.34 \times 10^{23} \text{ J}$
Total	1.34×10^{24}	1.41×10^{24}	3.19×10^{23}	$3.08 \times 10^{24} \text{ J}$

APPENDIX CONTINUED

Australia

Area of Country $7.68 \times 10^6 \text{ km}^2$
Mean Annual Temperature 22.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.07×10^{24}	4.13×10^{24}	0	$7.20 \times 10^{24} \text{ J}$
Resource Stored in Water	8.28×10^{23}	3.78×10^{23}	0	$1.21 \times 10^{24} \text{ J}$
Total	3.89×10^{24}	4.51×10^{24}	0	$8.41 \times 10^{24} \text{ J}$

Austria

Area of Country $8.39 \times 10^4 \text{ km}^2$
Mean Annual Temperature 8.0°C
56% of the Country has a Gradient of $31^\circ\text{C}/\text{km}$
44% of the Country has a Gradient of $43^\circ\text{C}/\text{km}$

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.45×10^{22}	3.35×10^{22}	3.45×10^{22}	$9.26 \times 10^{22} \text{ J}$
Resource Stored in Water	7.06×10^{21}	4.55×10^{21}	2.66×10^{21}	$1.43 \times 10^{22} \text{ J}$
Total	3.16×10^{22}	3.81×10^{22}	3.72×10^{22}	$1.07 \times 10^{23} \text{ J}$

Bahamas

Area of Country $1.39 \times 10^4 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.49×10^{21}	7.85×10^{21}	0	$1.33 \times 10^{22} \text{ J}$
Resource Stored in Water	1.50×10^{21}	7.39×10^{20}	0	$2.24 \times 10^{21} \text{ J}$
Total	6.99×10^{21}	8.59×10^{21}	0	$1.56 \times 10^{22} \text{ J}$

Bahrain

Area of Country $6.69 \times 10^2 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.62×10^{20}	3.87×10^{20}	0	$6.49 \times 10^{20} \text{ J}$
Resource Stored in Water	7.22×10^{19}	3.69×10^{19}	0	$1.09 \times 10^{20} \text{ J}$
Total	3.35×10^{20}	4.24×10^{20}	0	$7.58 \times 10^{20} \text{ J}$

APPENDIX CONTINUED

Bangladesh

Area of Country $1.44 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.68×10^{22}	8.13×10^{22}	0	$1.38 \times 10^{23} \text{ J}$
Resource Stored in Water	1.55×10^{22}	7.65×10^{21}	0	$2.32 \times 10^{22} \text{ J}$
Total	7.24×10^{22}	8.90×10^{22}	0	$1.61 \times 10^{23} \text{ J}$

Barbados

Area of Country $4.30 \times 10^2 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	8.17×10^{19}	1.15×10^{20}	5.23×10^{20}	$7.20 \times 10^{20} \text{ J}$
Resource Stored in Water	2.75×10^{19}	2.71×10^{19}	5.85×10^{19}	$1.13 \times 10^{20} \text{ J}$
Total	1.09×10^{20}	1.42×10^{20}	5.82×10^{20}	$8.33 \times 10^{20} \text{ J}$

Belgium

Area of Country $3.05 \times 10^4 \text{ km}^2$
Mean Annual Temperature 14.0°C
97% of the Country has a Gradient of 30°C/km
3% of the Country has a Gradient of 35°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.04×10^{22}	1.45×10^{22}	5.57×10^{21}	$3.04 \times 10^{22} \text{ J}$
Resource Stored in Water	2.91×10^{21}	1.68×10^{21}	2.70×10^{20}	$4.85 \times 10^{21} \text{ J}$
Total	1.33×10^{22}	1.61×10^{22}	5.84×10^{21}	$3.52 \times 10^{22} \text{ J}$

Belize

Area of Country $2.30 \times 10^4 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.500
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.97×10^{21}	1.17×10^{22}	5.30×10^{21}	$2.49 \times 10^{22} \text{ J}$
Resource Stored in Water	2.28×10^{21}	1.39×10^{21}	4.13×10^{20}	$4.08 \times 10^{21} \text{ J}$
Total	1.03×10^{22}	1.30×10^{22}	5.71×10^{21}	$2.90 \times 10^{22} \text{ J}$

APPENDIX CONTINUED

Benin

Area of Country $1.13 \times 10^5 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

		Class 1	Class 2	Class 3	Total	
Resource	Stored in Rock	4.38×10^{22}	6.51×10^{22}	3.27×10^{21}	1.12×10^{23}	J
Resource	Stored in Water	1.22×10^{22}	6.55×10^{21}	1.15×10^{20}	1.88×10^{22}	J
Total		5.59×10^{22}	7.17×10^{22}	3.39×10^{21}	1.31×10^{23}	J

Bermuda

Area of Country $5.33 \times 10^1 \text{ km}^2$
Mean Annual Temperature 18.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

		Class 1	Class 2	Class 3	Total	
Resource	Stored in Rock	2.17×10^{19}	2.59×10^{19}	0	4.76×10^{19}	J
Resource	Stored in Water	5.73×10^{18}	2.24×10^{18}	0	7.96×10^{18}	J
Total		2.74×10^{19}	2.81×10^{19}	0	5.56×10^{19}	J

Bhutan

Area of Country $4.77 \times 10^4 \text{ km}^2$
Mean Annual Temperature 22.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

		Class 1	Class 2	Class 3	Total	
Resource	Stored in Rock	1.46×10^{22}	2.09×10^{22}	2.01×10^{22}	5.55×10^{22}	J
Resource	Stored in Water	4.32×10^{21}	3.01×10^{21}	1.54×10^{21}	8.87×10^{21}	J
Total		1.89×10^{22}	2.39×10^{22}	2.16×10^{22}	6.44×10^{22}	J

Bolivia

Area of Country $1.10 \times 10^6 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.700
Type of Geothermal Belt Complex

		Class 1	Class 2	Class 3	Total	
Resource	Stored in Rock	3.63×10^{23}	5.22×10^{23}	3.45×10^{23}	1.23×10^{24}	J
Resource	Stored in Water	1.05×10^{23}	6.74×10^{22}	2.67×10^{22}	1.99×10^{23}	J
Total		4.69×10^{23}	5.90×10^{23}	3.71×10^{23}	1.43×10^{24}	J

APPENDIX CONTINUED

Botswana

Area of Country $6.00 \times 10^5 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.35×10^{23}	3.47×10^{23}	0	$5.82 \times 10^{23} \text{ J}$
Resource Stored in Water	6.47×10^{23}	3.31×10^{22}	0	$9.78 \times 10^{22} \text{ J}$
Total	3.00×10^{23}	3.80×10^{23}	0	$6.80 \times 10^{23} \text{ J}$

Brazil

Area of Country $8.51 \times 10^6 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.050
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.32×10^{24}	4.75×10^{24}	1.90×10^{23}	$8.26 \times 10^{24} \text{ J}$
Resource Stored in Water	9.11×10^{23}	4.57×10^{23}	1.48×10^{22}	$1.38 \times 10^{24} \text{ J}$
Total	4.23×10^{22}	5.21×10^{24}	2.05×10^{23}	$9.64 \times 10^{24} \text{ J}$

Brunei

Area of Country $5.77 \times 10^3 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.28×10^{21}	3.26×10^{21}	0	$5.54 \times 10^{21} \text{ J}$
Resource Stored in Water	6.23×10^{20}	3.07×10^{20}	0	$9.29 \times 10^{20} \text{ J}$
Total	2.90×10^{21}	3.57×10^{21}	0	$6.47 \times 10^{21} \text{ J}$

Bulgaria

Area of Country $1.11 \times 10^5 \text{ km}^2$
Mean Annual Temperature 16.0°C
70% of the Country has a Gradient of 20°C/km
30% of the Country has a Gradient of 34°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.05×10^{22}	2.96×10^{22}	1.39×10^{22}	$9.40 \times 10^{22} \text{ J}$
Resource Stored in Water	1.22×10^{22}	2.95×10^{21}	9.12×10^{20}	$1.61 \times 10^{22} \text{ J}$
Total	6.27×10^{22}	3.26×10^{22}	1.49×10^{22}	$1.10 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Burma

Area of Country $6.77 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.400
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.42×10^{23}	3.48×10^{23}	1.21×10^{23}	$7.11 \times 10^{23} \text{ J}$
Resource Stored in Water	6.83×10^{22}	3.91×10^{22}	9.39×10^{21}	$1.17 \times 10^{23} \text{ J}$
Total	3.11×10^{23}	3.87×10^{23}	1.31×10^{23}	$8.28 \times 10^{23} \text{ J}$

Burundi

Area of Country $2.78 \times 10^4 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	8.21×10^{21}	1.21×10^{22}	1.39×10^{22}	$3.42 \times 10^{22} \text{ J}$
Resource Stored in Water	2.49×10^{21}	1.90×10^{21}	1.11×10^{21}	$5.50 \times 10^{21} \text{ J}$
Total	1.07×10^{22}	1.40×10^{22}	1.50×10^{22}	$3.97 \times 10^{22} \text{ J}$

Cameroon

Area of Country $4.75 \times 10^5 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.200
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.77×10^{23}	2.61×10^{23}	5.05×10^{22}	$4.88 \times 10^{23} \text{ J}$
Resource Stored in Water	4.95×10^{22}	2.78×10^{22}	3.73×10^{21}	$8.11 \times 10^{22} \text{ J}$
Total	2.26×10^{23}	2.89×10^{23}	5.43×10^{22}	$5.69 \times 10^{23} \text{ J}$

Canada

Area of Country $9.98 \times 10^6 \text{ km}^2$
Mean Annual Temperature -1.0°C
Fraction of Country in Geothermal Belt 0.100
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.17×10^{24}	2.72×10^{24}	1.43×10^{23}	$7.03 \times 10^{24} \text{ J}$
Resource Stored in Water	9.88×10^{23}	1.84×10^{23}	1.20×10^{22}	$1.18 \times 10^{24} \text{ J}$
Total	5.15×10^{24}	2.90×10^{24}	1.55×10^{23}	$8.21 \times 10^{24} \text{ J}$

APPENDIX CONTINUED

Cape Verde Islands

Area of Country $4.03 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 22.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	7.78×10^{20}	1.08×10^{21}	4.76×10^{21}	6.62×10^{21}	J
Resource Stored in Water	2.60×10^{20}	2.50×10^{20}	5.23×10^{20}	1.03×10^{21}	J
Total	1.04×10^{21}	1.33×10^{21}	5.28×10^{21}	7.65×10^{21}	J

Central African Empire

Area of Country $6.23 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 28.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.40×10^{23}	3.59×10^{23}	2.71×10^{22}	6.25×10^{23}	J
Resource Stored in Water	6.70×10^{22}	3.70×10^{22}	9.89×10^{20}	1.05×10^{23}	J
Total	3.07×10^{23}	3.96×10^{23}	2.81×10^{22}	7.30×10^{23}	J

Chad

Area of Country $1.28 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.100
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	4.87×10^{23}	7.21×10^{23}	7.73×10^{22}	1.29×10^{24}	J
Resource Stored in Water	1.36×10^{23}	7.37×10^{22}	5.34×10^{21}	2.15×10^{23}	J
Total	6.23×10^{23}	7.94×10^{23}	8.27×10^{22}	1.50×10^{24}	J

Chile

Area of Country $7.57 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 15.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.39×10^{23}	3.34×10^{23}	2.50×10^{23}	8.23×10^{23}	J
Resource Stored in Water	6.87×10^{22}	4.31×10^{22}	1.85×10^{22}	1.30×10^{23}	J
Total	3.08×10^{23}	3.77×10^{23}	2.68×10^{23}	9.53×10^{23}	J

APPENDIX CONTINUED

China

Area of Country $9.56 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 18.0°C
 Fraction of Country in Geothermal Belt 0.300
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.62×10^{24}	4.51×10^{24}	1.06×10^{24}	$9.19 \times 10^{24} \text{ J}$
Resource Stored in Water	9.80×10^{23}	4.52×10^{23}	7.91×10^{22}	$1.51 \times 10^{24} \text{ J}$
Total	4.60×10^{24}	4.96×10^{24}	1.14×10^{24}	$1.07 \times 10^{25} \text{ J}$

Colombia

Area of Country $1.14 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 27.0°C
 Fraction of Country in Geothermal Belt 0.300
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.11×10^{23}	6.09×10^{23}	1.90×10^{23}	$1.21 \times 10^{24} \text{ J}$
Resource Stored in Water	1.17×10^{23}	6.93×10^{22}	1.40×10^{22}	$2.00 \times 10^{23} \text{ J}$
Total	5.27×10^{23}	6.78×10^{23}	2.04×10^{23}	$1.41 \times 10^{24} \text{ J}$

Comoros (& Mayotte)

Area of Country $2.17 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.10×10^{20}	5.79×10^{20}	2.67×10^{21}	$3.66 \times 10^{21} \text{ J}$
Resource Stored in Water	1.38×10^{20}	1.38×10^{20}	3.00×10^{20}	$5.76 \times 10^{20} \text{ J}$
Total	5.48×10^{20}	7.17×10^{20}	2.97×10^{21}	$4.23 \times 10^{21} \text{ J}$

Congo

Area of Country $3.42 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 27.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.32×10^{23}	1.97×10^{23}	9.90×10^{21}	$3.40 \times 10^{23} \text{ J}$
Resource Stored in Water	3.68×10^{22}	1.98×10^{22}	3.49×10^{20}	$5.70 \times 10^{22} \text{ J}$
Total	1.69×10^{23}	2.17×10^{23}	1.03×10^{22}	$3.97 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Costa Rica

Area of Country $5.07 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.63×10^{21}	1.35×10^{22}	6.17×10^{22}	$8.49 \times 10^{22} \text{ J}$
Resource Stored in Water	3.24×10^{21}	3.20×10^{21}	6.90×10^{21}	$1.33 \times 10^{22} \text{ J}$
Total	1.29×10^{22}	1.67×10^{22}	6.86×10^{22}	$9.82 \times 10^{22} \text{ J}$

Cuba

Area of Country $1.16 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.55×10^{22}	6.71×10^{22}	0	$1.13 \times 10^{23} \text{ J}$
Resource Stored in Water	1.25×10^{22}	6.40×10^{21}	0	$1.89 \times 10^{22} \text{ J}$
Total	5.80×10^{22}	7.35×10^{22}	0	$1.31 \times 10^{23} \text{ J}$

Cyprus

Area of Country $9.25 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 20.0°C
 100% of the Country has a Gradient of 15°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.80×10^{21}	0	0	$5.80 \times 10^{21} \text{ J}$
Resource Stored in Water	1.15×10^{21}	0	0	$1.15 \times 10^{21} \text{ J}$
Total	6.95×10^{21}	0	0	$6.95 \times 10^{21} \text{ J}$

Czechoslovakia

Area of Country $1.28 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 9.0°C/km
 82% of the Country has a Gradient of 29°C/km
 18% of the Country has a Gradient of 38°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.39×10^{22}	6.08×10^{22}	1.74×10^{22}	$1.22 \times 10^{23} \text{ J}$
Resource Stored in Water	1.20×10^{22}	6.34×10^{21}	1.08×10^{21}	$1.94 \times 10^{22} \text{ J}$
Total	5.59×10^{22}	6.71×10^{22}	1.85×10^{22}	$1.41 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Denmark

Area of Country $4.31 \times 10^4 \text{ km}^2$
Mean Annual Temperature 7.0°C
49% of the Country has a Gradient of $26^\circ\text{C}/\text{km}$
51% of the Country has a Gradient of $31^\circ\text{C}/\text{km}$

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.59×10^{22}	1.85×10^{22}	3.16×10^{21}	3.76×10^{22}	J
Resource Stored in Water	4.19×10^{21}	1.74×10^{21}	1.41×10^{20}	6.07×10^{21}	J
Total	2.01×10^{22}	2.02×10^{22}	3.31×10^{21}	4.37×10^{22}	J

Djibouti, Republic of

Area of Country $2.30 \times 10^4 \text{ km}^2$
Mean Annual Temperature 29.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	6.75×10^{21}	9.97×10^{21}	1.18×10^{22}	2.86×10^{22}	J
Resource Stored in Water	2.06×10^{21}	1.59×10^{21}	9.52×10^{20}	4.60×10^{21}	J
Total	8.81×10^{21}	1.16×10^{22}	1.28×10^{22}	3.32×10^{22}	J

Dominican Republic

Area of Country $4.84 \times 10^4 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.250
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.65×10^{22}	2.42×10^{22}	1.47×10^{22}	5.55×10^{22}	J
Resource Stored in Water	4.69×10^{21}	2.77×10^{21}	1.65×10^{21}	9.10×10^{21}	J
Total	2.12×10^{22}	2.70×10^{22}	1.64×10^{22}	6.46×10^{22}	J

Ecuador

Area of Country $2.83 \times 10^5 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	8.42×10^{22}	1.23×10^{23}	1.38×10^{23}	3.45×10^{23}	J
Resource Stored in Water	2.55×10^{22}	1.91×10^{22}	1.09×10^{22}	5.55×10^{22}	J
Total	1.10×10^{23}	1.42×10^{23}	1.49×10^{23}	4.01×10^{23}	J

APPENDIX CONTINUED

Egypt

Area of Country $1.00 \times 10^6 \text{ km}^2$
Mean Annual Temperature 23.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.97×10^{23}	5.51×10^{23}	0	$9.48 \times 10^{23} \text{ J}$
Resource Stored in Water	1.08×10^{23}	5.12×10^{22}	0	$1.59 \times 10^{23} \text{ J}$
Total	5.05×10^{23}	6.03×10^{23}	0	$1.11 \times 10^{24} \text{ J}$

El Salvador

Area of Country $2.10 \times 10^4 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.99×10^{21}	5.61×10^{21}	2.56×10^{22}	$3.52 \times 10^{22} \text{ J}$
Resource Stored in Water	1.34×10^{21}	1.32×10^{21}	2.86×10^{21}	$5.52 \times 10^{21} \text{ J}$
Total	5.33×10^{21}	6.93×10^{21}	2.84×10^{22}	$4.07 \times 10^{22} \text{ J}$

Equatorial Guinea

Area of Country $2.81 \times 10^4 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.10×10^{22}	1.62×10^{22}	4.06×10^{20}	$2.76 \times 10^{22} \text{ J}$
Resource Stored in Water	3.03×10^{21}	1.59×10^{21}	1.38×10^{19}	$4.63 \times 10^{21} \text{ J}$
Total	1.40×10^{22}	1.78×10^{22}	4.20×10^{20}	$3.22 \times 10^{22} \text{ J}$

Ethiopia

Area of Country $1.22 \times 10^6 \text{ km}^2$
Mean Annual Temperature 29.0°C
Fraction of Country in Geothermal Belt 0.600
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.01×10^{23}	5.98×10^{23}	4.05×10^{23}	$1.40 \times 10^{24} \text{ J}$
Resource Stored in Water	1.18×10^{23}	8.03×10^{22}	3.14×10^{22}	$2.30 \times 10^{23} \text{ J}$
Total	5.19×10^{23}	6.78×10^{23}	4.37×10^{23}	$1.63 \times 10^{24} \text{ J}$

APPENDIX CONTINUED

Faeroe Islands

Area of Country $1.40 \times 10^3 \text{ km}^2$
Mean Annual Temperature 7.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.92×10^{20}	4.87×10^{20}	0	$1.08 \times 10^{21} \text{ J}$
Resource Stored in Water	1.46×10^{20}	3.53×10^{19}	0	$1.81 \times 10^{20} \text{ J}$
Total	7.38×10^{20}	5.23×10^{20}	0	$1.26 \times 10^{21} \text{ J}$

Falkland Islands and Dependencies

Area of Country $1.20 \times 10^4 \text{ km}^2$
Mean Annual Temperature 6.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.08×10^{21}	4.03×10^{21}	0	$9.12 \times 10^{21} \text{ J}$
Resource Stored in Water	1.25×10^{21}	2.87×10^{20}	0	$1.53 \times 10^{21} \text{ J}$
Total	6.33×10^{21}	4.32×10^{21}	0	$1.06 \times 10^{22} \text{ J}$

Fiji

Area of Country $1.83 \times 10^4 \text{ km}^2$
Mean Annual Temperature 22.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.53×10^{21}	4.90×10^{21}	2.16×10^{22}	$3.00 \times 10^{22} \text{ J}$
Resource Stored in Water	1.18×10^{21}	1.13×10^{21}	2.37×10^{21}	$4.69 \times 10^{21} \text{ J}$
Total	4.71×10^{21}	6.03×10^{21}	2.40×10^{22}	$3.47 \times 10^{22} \text{ J}$

Finland

Area of Country $3.37 \times 10^5 \text{ km}^2$
Mean Annual Temperature 3.0°C
100% of the Country has a Gradient of 17°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.67×10^{23}	0	0	$1.67 \times 10^{23} \text{ J}$
Resource Stored in Water	3.32×10^{22}	0	0	$3.32 \times 10^{22} \text{ J}$
Total	2.00×10^{23}	0	0	$2.00 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

France

Area of Country $5.47 \times 10^5 \text{ km}^2$
Mean Annual Temperature 11.0°C
77% of the Country has a Gradient of 32°C/km
23% of the Country has a Gradient of 41°C/km

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.67×10^{23}	2.29×10^{23}	1.92×10^{23}	5.88×10^{23}	J
Resource Stored in Water	4.80×10^{22}	3.08×10^{22}	1.27×10^{22}	9.15×10^{22}	J
Total	2.15×10^{23}	2.60×10^{23}	2.04×10^{23}	6.79×10^{23}	J

French Guiana

Area of Country $9.10 \times 10^4 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	3.55×10^{22}	5.25×10^{22}	1.31×10^{21}	8.93×10^{22}	J
Resource Stored in Water	9.81×10^{21}	5.15×10^{21}	4.47×10^{19}	1.50×10^{22}	J
Total	4.53×10^{22}	5.77×10^{22}	1.36×10^{21}	1.04×10^{23}	J

French Polynesia

Area of Country $3.91 \times 10^3 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.54×10^{21}	2.21×10^{21}	0	3.75×10^{21}	J
Resource Stored in Water	4.22×10^{20}	2.08×10^{20}	0	6.30×10^{20}	J
Total	1.97×10^{21}	2.42×10^{21}	0	4.38×10^{21}	J

Gabon

Area of Country $2.68 \times 10^5 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.04×10^{23}	1.54×10^{23}	7.76×10^{21}	2.66×10^{23}	J
Resource Stored in Water	2.89×10^{22}	1.55×10^{22}	2.73×10^{20}	4.47×10^{22}	J
Total	1.33×10^{23}	1.70×10^{23}	8.04×10^{21}	3.11×10^{23}	J

APPENDIX CONTINUED

Gambia

Area of Country $1.13 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.43×10^{21}	6.53×10^{21}	0	$1.10 \times 10^{22} \text{ J}$
Resource Stored in Water	1.22×10^{21}	6.23×10^{20}	0	$1.84 \times 10^{21} \text{ J}$
Total	5.65×10^{21}	7.16×10^{21}	0	$1.28 \times 10^{22} \text{ J}$

Germany, Democratic Republic of

Area of Country $1.08 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 9.0°C
 86% of the Country has a Gradient of 30°C/km
 14% of the Country has a Gradient of 40°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.60×10^{22}	4.98×10^{22}	1.96×10^{22}	$1.05 \times 10^{23} \text{ J}$
Resource Stored in Water	9.97×10^{21}	5.53×10^{21}	1.17×10^{21}	$1.67 \times 10^{23} \text{ J}$
Total	4.60×10^{22}	5.53×10^{22}	2.08×10^{22}	$1.22 \times 10^{23} \text{ J}$

Germany, Federal Republic of

Area of Country $2.49 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 9.0°C
 85% of the Country has a Gradient of 31°C/km
 15% of the Country has a Gradient of 47°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.88×10^{22}	1.09×10^{23}	6.98×10^{22}	$2.57 \times 10^{23} \text{ J}$
Resource Stored in Water	2.22×10^{22}	1.32×10^{22}	4.91×10^{21}	$4.03 \times 10^{22} \text{ J}$
Total	1.01×10^{23}	1.22×10^{23}	7.47×10^{22}	$2.97 \times 10^{23} \text{ J}$

Ghana

Area of Country $2.39 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.32×10^{22}	1.38×10^{23}	3.45×10^{21}	$2.35 \times 10^{23} \text{ J}$
Resource Stored in Water	2.58×10^{22}	1.35×10^{23}	1.17×10^{20}	$3.94 \times 10^{22} \text{ J}$
Total	1.19×10^{23}	1.52×10^{23}	3.57×10^{21}	$2.74 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Gibraltar

Area of Country $5.50 \times 10 \text{ km}^2$
Mean Annual Temperature 17.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.25×10^{18}	2.60×10^{18}	0	$4.85 \times 10^{18} \text{ J}$
Resource Stored in Water	5.90×10^{17}	2.21×10^{17}	0	$8.12 \times 10^{17} \text{ J}$
Total	2.84×10^{18}	2.82×10^{18}	0	$5.66 \times 10^{18} \text{ J}$

Gilbert Islands

Area of Country $6.97 \times 10^2 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.68×10^{20}	4.01×10^{20}	3.04×10^{19}	$7.00 \times 10^{20} \text{ J}$
Resource Stored in Water	7.50×10^{19}	4.14×10^{19}	1.11×10^{18}	$1.18 \times 10^{20} \text{ J}$
Total	3.43×10^{20}	4.43×10^{20}	3.15×10^{19}	$8.17 \times 10^{20} \text{ J}$

Greece

Area of Country $1.07 \times 10^5 \text{ km}^2$
Mean Annual Temperature 16.0°C
71% of the Country has a Gradient of $22^\circ\text{C}/\text{km}$
29% of the Country has a Gradient of $41^\circ\text{C}/\text{km}$

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.34×10^{22}	3.42×10^{22}	2.32×10^{22}	$1.01 \times 10^{23} \text{ J}$
Resource Stored in Water	1.11×10^{22}	3.59×10^{21}	2.01×10^{21}	$1.67 \times 10^{22} \text{ J}$
Total	5.44×10^{22}	3.78×10^{22}	2.52×10^{22}	$1.17 \times 10^{23} \text{ J}$

Grenada

Area of Country $3.44 \times 10^2 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.50×10^{19}	9.18×10^{19}	4.23×10^{20}	$5.80 \times 10^{20} \text{ J}$
Resource Stored in Water	2.19×10^{19}	2.18×10^{19}	4.75×10^{19}	$9.13 \times 10^{19} \text{ J}$
Total	8.69×10^{19}	1.14×10^{20}	4.70×10^{20}	$6.71 \times 10^{20} \text{ J}$

APPENDIX CONTINUED

Greenland

Area of Country $2.18 \times 10^6 \text{ km}^2$
Mean Annual Temperature -14.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.24×10^{23}	2.41×10^{23}	0	$1.16 \times 10^{24} \text{ J}$
Resource Stored in Water	1.99×10^{23}	1.11×10^{22}	0	$2.10 \times 10^{23} \text{ J}$
Total	1.12×10^{24}	2.52×10^{23}	0	$1.37 \times 10^{24} \text{ J}$

Guadeloupe & Dependencies

Area of Country $1.70 \times 10^3 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.23×10^{20}	4.54×10^{20}	2.07×10^{21}	$2.85 \times 10^{21} \text{ J}$
Resource Stored in Water	1.09×10^{20}	1.07×10^{20}	2.31×10^{20}	$4.47 \times 10^{20} \text{ J}$
Total	4.32×10^{20}	5.61×10^{20}	2.30×10^{21}	$3.29 \times 10^{21} \text{ J}$

Guatemala

Area of Country $1.09 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.30×10^{22}	4.75×10^{22}	4.88×10^{22}	$1.29 \times 10^{23} \text{ J}$
Resource Stored in Water	9.86×10^{21}	7.06×10^{21}	3.78×10^{21}	$2.07 \times 10^{22} \text{ J}$
Total	4.29×10^{22}	5.46×10^{22}	5.26×10^{22}	$1.50 \times 10^{23} \text{ J}$

Guinea

Area of Country $2.46 \times 10^5 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.65×10^{22}	1.42×10^{23}	0	$2.39 \times 10^{23} \text{ J}$
Resource Stored in Water	2.65×10^{22}	1.36×10^{22}	0	$4.01 \times 10^{22} \text{ J}$
Total	1.23×10^{23}	1.56×10^{23}	0	$2.79 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Guinea-Bissau

Area of Country $3.61 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.42×10^{22}	2.09×10^{22}	0	3.50×10^{22}	J
Resource Stored in Water	3.89×10^{21}	1.99×10^{21}	0	5.88×10^{21}	J
Total	1.81×10^{22}	2.29×10^{22}	0	4.09×10^{22}	J

Guyana

Area of Country $2.15 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 27.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	8.33×10^{22}	1.24×10^{23}	6.23×10^{21}	2.13×10^{23}	J
Resource Stored in Water	2.32×10^{22}	1.25×10^{22}	2.19×10^{20}	3.58×10^{22}	J
Total	1.06×10^{23}	1.36×10^{23}	6.45×10^{21}	2.49×10^{23}	J

Haiti

Area of Country $2.78 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.030
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.07×10^{22}	1.58×10^{22}	1.41×10^{21}	2.79×10^{22}	J
Resource Stored in Water	2.96×10^{21}	1.58×10^{21}	1.29×10^{20}	4.67×10^{21}	J
Total	1.36×10^{22}	1.74×10^{22}	1.54×10^{21}	3.25×10^{22}	J

Honduras

Area of Country $1.12 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 0.500
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	3.88×10^{22}	5.68×10^{22}	2.58×10^{22}	1.21×10^{23}	J
Resource Stored in Water	1.11×10^{22}	6.77×10^{21}	2.01×10^{21}	1.99×10^{22}	J
Total	4.99×10^{22}	6.35×10^{22}	2.78×10^{22}	1.41×10^{23}	J

APPENDIX CONTINUED

Hungary

Area of Country $9.30 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 11.0°C
 100% of the Country has a Gradient of 46°C/km

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.04×10^{22}	2.75×10^{22}	8.32×10^{22}	1.31×10^{23}	J
Resource Stored in Water	6.50×10^{21}	5.52×10^{21}	7.88×10^{21}	1.99×10^{22}	J
Total	2.69×10^{22}	3.30×10^{22}	9.11×10^{22}	1.51×10^{23}	J

Iceland

Area of Country $1.03 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 5.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.10×10^{22}	2.80×10^{22}	1.01×10^{23}	1.50×10^{23}	J
Resource Stored in Water	6.71×10^{21}	5.76×10^{21}	9.97×10^{21}	2.24×10^{22}	J
Total	2.77×10^{22}	3.37×10^{22}	1.11×10^{23}	1.73×10^{23}	J

India

Area of Country $3.29 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 24.0°C
 Fraction of Country in Geothermal Belt 0.050
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.28×10^{24}	1.84×10^{24}	7.36×10^{22}	3.19×10^{24}	J
Resource Stored in Water	3.52×10^{23}	1.77×10^{23}	5.70×10^{21}	5.35×10^{23}	J
Total	1.64×10^{24}	2.01×10^{24}	7.93×10^{22}	3.73×10^{24}	J

Indonesia

Area of Country $1.90 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.800
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	4.35×10^{23}	6.25×10^{23}	1.87×10^{24}	2.93×10^{24}	J
Resource Stored in Water	1.38×10^{23}	1.18×10^{23}	2.10×10^{23}	4.66×10^{23}	J
Total	5.73×10^{23}	7.43×10^{23}	2.08×10^{24}	3.40×10^{24}	J

APPENDIX CONTINUED

Iran

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$1.65 \times 10^6 \text{ km}^2$
22.0°C
0.200
Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	6.28×10^{23}	8.55×10^{23}	1.39×10^{23}	1.62×10^{24}	J
Resource Stored in Water	1.72×10^{23}	8.58×10^{22}	1.06×10^{22}	2.69×10^{23}	J
Total	8.00×10^{23}	9.41×10^{23}	1.50×10^{23}	1.89×10^{24}	J

Iraq

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$4.35 \times 10^5 \text{ km}^2$
22.0°C
0.100
Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.70×10^{23}	2.30×10^{23}	1.83×10^{22}	4.18×10^{23}	J
Resource Stored in Water	4.62×10^{22}	2.20×10^{22}	1.40×10^{21}	6.96×10^{22}	J
Total	2.16×10^{23}	2.52×10^{23}	1.97×10^{22}	4.87×10^{23}	J

Ireland, Republic of

Area of Country
Mean Annual Temperature
5% of the Country has a Gradient of 31°C/km
95% of the Country has a Gradient of 35°C.m

$6.89 \times 10^4 \text{ km}^2$
10.0°C

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.03×10^{22}	2.79×10^{22}	2.65×10^{22}	7.47×10^{22}	J
Resource Stored in Water	5.93×10^{21}	3.94×10^{21}	1.67×10^{21}	1.15×10^{22}	J
Total	2.63×10^{22}	3.18×10^{22}	2.81×10^{22}	8.62×10^{22}	J

Israel

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$2.08 \times 10^4 \text{ km}^2$
22.0°C
0.030
Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	8.25×10^{21}	1.11×10^{22}	2.63×10^{20}	1.96×10^{22}	J
Resource Stored in Water	2.23×10^{21}	1.03×10^{21}	2.01×10^{19}	3.29×10^{21}	J
Total	1.05×10^{22}	1.22×10^{22}	2.83×10^{20}	2.29×10^{22}	J

APPENDIX CONTINUED

Italy

Area of Country $3.01 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 18.0°C
 60% of the Country has a Gradient of $24^\circ\text{C}/\text{km}$
 40% of the Country has a Gradient of $40^\circ\text{C}/\text{km}$

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.07×10^{23}	1.21×10^{23}	8.76×10^{22}	$3.15 \times 10^{23} \text{ J}$
Resource Stored in Water	2.92×10^{22}	1.42×10^{22}	7.51×10^{21}	$5.09 \times 10^{22} \text{ J}$
Total	1.36×10^{23}	1.35×10^{23}	9.51×10^{22}	$3.66 \times 10^{23} \text{ J}$

Ivory Coast

Area of Country $3.22 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.26×10^{23}	1.86×10^{23}	4.65×10^{21}	$3.16 \times 10^{23} \text{ J}$
Resource Stored in Water	3.47×10^{22}	1.82×10^{22}	1.58×10^{20}	$5.31 \times 10^{22} \text{ J}$
Total	1.60×10^{23}	2.04×10^{23}	4.81×10^{21}	$3.69 \times 10^{23} \text{ J}$

Jamaica

Area of Country $1.10 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 27.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.26×10^{21}	6.34×10^{21}	3.19×10^{20}	$1.09 \times 10^{22} \text{ J}$
Resource Stored in Water	1.18×10^{21}	6.38×10^{20}	1.12×10^{19}	$1.83 \times 10^{21} \text{ J}$
Total	5.45×10^{21}	6.98×10^{21}	3.30×10^{20}	$1.28 \times 10^{22} \text{ J}$

Japan

Area of Country $3.72 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 8.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.54×10^{22}	1.01×10^{23}	3.78×10^{23}	$5.54 \times 10^{23} \text{ J}$
Resource Stored in Water	2.43×10^{22}	2.12×10^{22}	3.80×10^{22}	$8.35 \times 10^{22} \text{ J}$
Total	9.97×10^{22}	1.22×10^{23}	4.16×10^{23}	$6.38 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Jordan

Area of Country
 Mean Annual Temperature
 Fraction of Country in Geothermal Belt
 Type of Geothermal Belt

$9.77 \times 10^4 \text{ km}^2$
 21.0°C
 0.030
 Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.89×10^{22}	5.10×10^{22}	1.20×10^{21}	$9.12 \times 10^{22} \text{ J}$
Resource Stored in Water	1.05×10^{22}	4.67×10^{21}	9.08×10^{19}	$1.52 \times 10^{22} \text{ J}$
Total	4.94×10^{22}	5.57×10^{22}	1.29×10^{21}	$1.06 \times 10^{23} \text{ J}$

Kampuchea, Democratic

Area of Country
 Mean Annual Temperature
 Fraction of Country in Geothermal Belt
 Type of Geothermal Belt

$1.81 \times 10^5 \text{ km}^2$
 24.0°C
 0.000
 Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.14×10^{22}	1.02×10^{23}	0	$1.74 \times 10^{23} \text{ J}$
Resource Stored in Water	1.95×10^{22}	9.62×10^{21}	0	$2.91 \times 10^{22} \text{ J}$
Total	9.10×10^{22}	1.12×10^{23}	0	$2.03 \times 10^{23} \text{ J}$

Kenya

Area of Country
 Mean Annual Temperature
 Fraction of Country in Geothermal Belt
 Type of Geothermal Belt

$5.83 \times 10^5 \text{ km}^2$
 27.0°C
 0.600
 Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.94×10^{23}	2.86×10^{23}	1.77×10^{23}	$6.58 \times 10^{23} \text{ J}$
Resource Stored in Water	5.66×10^{22}	3.71×10^{22}	1.37×10^{22}	$1.07 \times 10^{23} \text{ J}$
Total	2.51×10^{23}	3.24×10^{23}	1.91×10^{23}	$7.66 \times 10^{23} \text{ J}$

Korea, North

Area of Country
 Mean Annual Temperature
 Fraction of Country in Geothermal Belt
 Type of Geothermal Belt

$1.21 \times 10^5 \text{ km}^2$
 10.0°C
 1.000
 Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.89×10^{22}	5.37×10^{22}	3.23×10^{22}	$1.25 \times 10^{23} \text{ J}$
Resource Stored in Water	1.09×10^{22}	6.36×10^{21}	2.38×10^{21}	$1.96 \times 10^{22} \text{ J}$
Total	4.98×10^{22}	6.00×10^{22}	3.47×10^{22}	$1.45 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Korea, South

Area of Country $9.85 \times 10^4 \text{ km}^2$
Mean Annual Temperature 11.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.16×10^{22}	4.37×10^{22}	2.75×10^{22}	$1.03 \times 10^{23} \text{ J}$
Resource Stored in Water	8.89×10^{21}	5.26×10^{21}	2.03×10^{21}	$1.62 \times 10^{22} \text{ J}$
Total	4.04×10^{22}	4.89×10^{22}	2.96×10^{22}	$1.19 \times 10^{23} \text{ J}$

Kuwait

Area of Country $1.78 \times 10^4 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.03×10^{21}	1.01×10^{22}	0	$1.71 \times 10^{22} \text{ J}$
Resource Stored in Water	1.92×10^{21}	9.46×10^{20}	0	$2.87 \times 10^{21} \text{ J}$
Total	8.95×10^{21}	1.10×10^{22}	0	$1.99 \times 10^{22} \text{ J}$

Laos

Area of Country $2.37 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.35×10^{22}	1.34×10^{23}	0	$2.27 \times 10^{23} \text{ J}$
Resource Stored in Water	2.56×10^{22}	1.26×10^{22}	0	$3.82 \times 10^{22} \text{ J}$
Total	1.19×10^{23}	1.46×10^{23}	0	$2.66 \times 10^{23} \text{ J}$

Lebanon

Area of Country $1.04 \times 10^4 \text{ km}^2$
Mean Annual Temperature 21.0°C
Fraction of Country in Geothermal Belt 0.500
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.69×10^{21}	5.01×10^{21}	2.12×10^{21}	$1.08 \times 10^{22} \text{ J}$
Resource Stored in Water	1.03×10^{21}	5.70×10^{20}	1.61×10^{20}	$1.76 \times 10^{21} \text{ J}$
Total	4.72×10^{21}	5.58×10^{21}	2.28×10^{21}	$1.26 \times 10^{22} \text{ J}$

APPENDIX CONTINUED

Lesotho

Area of Country $3.04 \times 10^4 \text{ km}^2$
Mean Annual Temperature 23.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.21×10^{22}	1.68×10^{22}	0	$2.88 \times 10^{22} \text{ J}$
Resource Stored in Water	3.28×10^{21}	1.56×10^{21}	0	$4.84 \times 10^{21} \text{ J}$
Total	1.53×10^{22}	1.83×10^{22}	0	$3.37 \times 10^{22} \text{ J}$

Liberia

Area of Country $1.11 \times 10^5 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.33×10^{22}	6.41×10^{22}	1.60×10^{21}	$1.09 \times 10^{23} \text{ J}$
Resource Stored in Water	1.20×10^{22}	6.28×10^{21}	5.46×10^{19}	$1.83 \times 10^{22} \text{ J}$
Total	5.52×10^{22}	7.04×10^{22}	1.66×10^{21}	$1.27 \times 10^{23} \text{ J}$

Libya

Area of Country $1.76 \times 10^6 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.90×10^{23}	1.02×10^{24}	0	$1.71 \times 10^{24} \text{ J}$
Resource Stored in Water	1.90×10^{23}	9.71×10^{22}	0	$2.87 \times 10^{23} \text{ J}$
Total	8.80×10^{23}	1.11×10^{24}	0	$2.00 \times 10^{24} \text{ J}$

Leichtenstein

Area of Country $1.57 \times 10^2 \text{ km}^2$
Mean Annual Temperature 10.0°C
20% of the Country has a Gradient of 40°C/km
80% of the Country has a Gradient of 45°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.63×10^{19}	4.90×10^{19}	1.26×10^{20}	$2.11 \times 10^{20} \text{ J}$
Resource Stored in Water	1.14×10^{19}	9.29×10^{18}	1.13×10^{19}	$3.19 \times 10^{19} \text{ J}$
Total	4.77×10^{19}	5.83×10^{19}	1.37×10^{20}	$2.43 \times 10^{20} \text{ J}$

APPENDIX CONTINUED

Luxembourg

Area of Country $2.59 \times 10^3 \text{ km}^2$
Mean Annual Temperature 11.0°C
97% of the Country has a Gradient of $30^\circ\text{C}/\text{km}$
3% of the Country has a Gradient of $35^\circ\text{C}/\text{km}$

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	8.88×10^{20}	1.23×10^{21}	3.73×10^{20}	$2.49 \times 10^{21} \text{ J}$
Resource Stored in Water	2.46×10^{20}	1.35×10^{20}	1.70×10^{19}	$3.97 \times 10^{20} \text{ J}$
Total	1.13×10^{21}	1.37×10^{21}	3.90×10^{20}	$2.89 \times 10^{21} \text{ J}$

Madagascar

Area of Country $5.87 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.050
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.29×10^{23}	3.28×10^{23}	1.31×10^{22}	$5.70 \times 10^{23} \text{ J}$
Resource Stored in Water	6.28×10^{22}	3.15×10^{22}	1.02×10^{21}	$9.54 \times 10^{22} \text{ J}$
Total	2.92×10^{23}	3.59×10^{23}	1.42×10^{22}	$6.65 \times 10^{23} \text{ J}$

Malawi

Area of Country $1.18 \times 10^5 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.500
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.09×10^{22}	5.98×10^{22}	2.72×10^{22}	$1.28 \times 10^{23} \text{ J}$
Resource Stored in Water	1.17×10^{22}	7.13×10^{21}	2.12×10^{21}	$2.09 \times 10^{22} \text{ J}$
Total	5.26×10^{22}	6.69×10^{22}	2.93×10^{22}	$1.49 \times 10^{23} \text{ J}$

Malaysia

Area of Country $3.30 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.020
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.29×10^{23}	1.84×10^{23}	7.95×10^{21}	$3.21 \times 10^{23} \text{ J}$
Resource Stored in Water	3.53×10^{22}	1.76×10^{22}	8.84×10^{20}	$5.38 \times 10^{22} \text{ J}$
Total	1.64×10^{23}	2.02×10^{23}	8.84×10^{21}	$3.75 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Maldives, Republic of

Area of Country $2.98 \times 10^2 \text{ km}^2$
 Mean Annual Temperature 24.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	5.69×10^{19}	7.96×10^{19}	3.59×10^{20}	4.96×10^{20}	J
Resource Stored in Water	1.91×10^{19}	1.87×10^{19}	3.99×10^{19}	7.77×10^{19}	J
Total	7.60×10^{19}	9.83×10^{19}	3.99×10^{20}	5.73×10^{20}	J

Mali

Area of Country $1.24 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	4.83×10^{23}	7.16×10^{23}	1.79×10^{22}	1.22×10^{24}	J
Resource Stored in Water	1.34×10^{23}	7.02×10^{22}	6.09×10^{20}	2.04×10^{23}	J
Total	6.17×10^{23}	7.86×10^{23}	1.85×10^{22}	1.42×10^{24}	J

Malta

Area of Country $3.16 \times 10^2 \text{ km}^2$
 Mean Annual Temperature 20.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	9.78×10^{19}	1.38×10^{20}	1.25×10^{20}	3.61×10^{20}	J
Resource Stored in Water	2.87×10^{19}	1.94×10^{19}	9.42×10^{18}	5.75×10^{19}	J
Total	1.26×10^{20}	1.58×10^{20}	1.34×10^{20}	4.19×10^{20}	J

Martinique

Area of Country $1.10 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.08×10^{20}	2.94×10^{20}	1.35×10^{21}	1.85×10^{21}	J
Resource Stored in Water	7.01×10^{19}	6.97×10^{19}	1.52×10^{20}	2.92×10^{20}	J
Total	2.78×10^{20}	3.63×10^{20}	1.50×10^{21}	2.15×10^{21}	J

APPENDIX CONTINUED

Mauritani

Area of Country $1.03 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 27.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.99×10^{23}	5.94×10^{23}	2.98×10^{22}	$1.02 \times 10^{24} \text{ J}$
Resource Stored in Water	1.11×10^{23}	5.97×10^{22}	1.05×10^{21}	$1.72 \times 10^{23} \text{ J}$
Total	5.10×10^{23}	6.53×10^{23}	3.09×10^{22}	$1.19 \times 10^{24} \text{ J}$

Mauritius

Area of Country $2.05 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 23.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.94×10^{20}	5.48×10^{20}	2.45×10^{21}	$3.39 \times 10^{21} \text{ J}$
Resource Stored in Water	1.32×10^{20}	1.28×10^{20}	2.70×10^{20}	$5.30 \times 10^{20} \text{ J}$
Total	5.26×10^{20}	6.76×10^{20}	2.72×10^{21}	$3.92 \times 10^{21} \text{ J}$

Mexico

Area of Country $1.97 \times 10^6 \text{ km}^2$
 Mean Annual Temperature 24.0°C
 Fraction of Country in Geothermal Belt 0.600
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.69×10^{23}	9.61×10^{23}	5.29×10^{23}	$2.16 \times 10^{24} \text{ J}$
Resource Stored in Water	1.92×10^{23}	1.18×10^{23}	4.10×10^{22}	$3.51 \times 10^{23} \text{ J}$
Total	8.61×10^{23}	1.08×10^{24}	5.70×10^{23}	$2.51 \times 10^{24} \text{ J}$

Monaco

Area of Country $1.50 \times 10 \text{ km}^2$
 Mean Annual Temperature 15.0°C
 100% of the Country has a Gradient of 35°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.33×10^{17}	5.99×10^{17}	6.85×10^{17}	$1.72 \times 10^{18} \text{ J}$
Resource Stored in Water	1.29×10^{17}	9.17×10^{16}	4.66×10^{16}	$2.67 \times 10^{17} \text{ J}$
Total	5.62×10^{17}	6.91×10^{17}	7.32×10^{17}	$1.98 \times 10^{18} \text{ J}$

APPENDIX CONTINUED

Mongolia

Area of Country $1.57 \times 10^6 \text{ km}^2$
Mean Annual Temperature 3.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.69×10^{23}	4.71×10^{23}	0	$1.14 \times 10^{24} \text{ J}$
Resource Stored in Water	1.61×10^{23}	3.17×10^{22}	0	$1.93 \times 10^{23} \text{ J}$
Total	8.29×10^{23}	5.03×10^{23}	0	$1.33 \times 10^{24} \text{ J}$

Montserrat

Area of Country $1.06 \times 10^2 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.99×10^{19}	2.83×10^{19}	1.32×10^{20}	$1.80 \times 10^{20} \text{ J}$
Resource Stored in Water	6.73×10^{18}	6.76×10^{18}	1.49×10^{19}	$2.84 \times 10^{19} \text{ J}$
Total	2.66×10^{19}	3.50×10^{19}	1.46×10^{20}	$2.08 \times 10^{20} \text{ J}$

Morocco

Area of Country $4.47 \times 10^5 \text{ km}^2$
Mean Annual Temperature 20.0°C
Fraction of Country in Geothermal Belt 0.800
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.47×10^{23}	2.02×10^{23}	1.41×10^{23}	$4.90 \times 10^{23} \text{ J}$
Resource Stored in Water	4.21×10^{22}	2.60×10^{22}	1.07×10^{22}	$7.87 \times 10^{22} \text{ J}$
Total	1.89×10^{23}	2.28×10^{23}	1.52×10^{23}	$5.69 \times 10^{23} \text{ J}$

Mozambique

Area of Country $7.83 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.900
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.44×10^{23}	3.52×10^{23}	3.15×10^{23}	$9.11 \times 10^{23} \text{ J}$
Resource Stored in Water	7.22×10^{22}	4.98×10^{22}	2.44×10^{22}	$1.46 \times 10^{23} \text{ J}$
Total	3.17×10^{23}	4.01×10^{23}	3.40×10^{23}	$1.06 \times 10^{24} \text{ J}$

APPENDIX CONTINUED

Nambia

Area of Country $8.24 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.25×10^{23}	4.65×10^{23}	0	$7.91 \times 10^{23} \text{ J}$
Resource Stored in Water	8.89×10^{22}	4.38×10^{22}	0	$1.33 \times 10^{23} \text{ J}$
Total	4.14×10^{23}	5.09×10^{23}	0	$9.23 \times 10^{23} \text{ J}$

Nauru

Area of Country $2.10 \times 10 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	8.29×10^{18}	1.19×10^{19}	0	$2.01 \times 10^{19} \text{ J}$
Resource Stored in Water	2.27×10^{18}	1.12×10^{18}	0	$3.38 \times 10^{18} \text{ J}$
Total	1.06×10^{19}	1.30×10^{19}	0	$2.35 \times 10^{19} \text{ J}$

Nepal

Area of Country $1.41 \times 10^5 \text{ km}^2$
Mean Annual Temperature 22.0°C
Fraction of Country in Geothermal Belt 0.500
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.97×10^{22}	6.88×10^{22}	2.97×10^{22}	$1.48 \times 10^{23} \text{ J}$
Resource Stored in Water	1.40×10^{22}	7.92×10^{21}	2.27×10^{21}	$2.42 \times 10^{22} \text{ J}$
Total	6.37×10^{22}	7.67×10^{22}	3.20×10^{22}	$1.72 \times 10^{23} \text{ J}$

Netherlands

Area of Country $3.38 \times 10^4 \text{ km}^2$
Mean Annual Temperature 9.0°C
67% of the Country has a Gradient of 30°C/km
33% of the Country has a Gradient of 35°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.11×10^{22}	1.53×10^{22}	6.77×10^{21}	$3.32 \times 10^{22} \text{ J}$
Resource Stored in Water	3.10×10^{21}	1.76×10^{21}	3.72×10^{20}	$5.23 \times 10^{21} \text{ J}$
Total	1.42×10^{22}	1.71×10^{22}	7.15×10^{21}	$3.85 \times 10^{22} \text{ J}$

APPENDIX CONTINUED

New Caledonia & Dependencies

Area of Country $1.91 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 26.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.45×10^{21}	1.10×10^{22}	2.76×10^{20}	$1.87 \times 10^{22} \text{ J}$
Resource Stored in Water	2.06×10^{21}	1.08×10^{21}	9.39×10^{18}	$3.15 \times 10^{21} \text{ J}$
Total	9.50×10^{21}	1.21×10^{22}	2.85×10^{20}	$2.19 \times 10^{22} \text{ J}$

New Hebrides

Area of Country $1.48 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 24.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.83×10^{21}	3.96×10^{21}	1.78×10^{22}	$2.46 \times 10^{22} \text{ J}$
Resource Stored in Water	9.49×10^{20}	9.28×10^{20}	1.98×10^{21}	$3.86 \times 10^{21} \text{ J}$
Total	3.78×10^{21}	4.88×10^{21}	1.98×10^{22}	$2.85 \times 10^{22} \text{ J}$

New Zealand

Area of Country $2.69 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 12.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	8.59×10^{22}	1.19×10^{23}	7.86×10^{22}	$2.84 \times 10^{23} \text{ J}$
Resource Stored in Water	2.43×10^{22}	1.46×10^{22}	5.78×10^{21}	$4.47 \times 10^{22} \text{ J}$
Total	1.10×10^{23}	1.34×10^{23}	8.44×10^{22}	$3.28 \times 10^{23} \text{ J}$

Nicaragua

Area of Country $1.30 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.91×10^{22}	5.66×10^{22}	5.99×10^{22}	$1.56 \times 10^{23} \text{ J}$
Resource Stored in Water	1.17×10^{22}	8.54×10^{21}	4.67×10^{21}	$2.49 \times 10^{22} \text{ J}$
Total	5.09×10^{22}	6.52×10^{22}	6.46×10^{22}	$1.81 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Niger

Area of Country $1.27 \times 10^6 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	4.89×10^{23}	7.31×10^{23}	5.53×10^{22}	1.27×10^{24}	J
Resource Stored in Water	1.37×10^{23}	7.55×10^{22}	2.02×10^{21}	2.14×10^{23}	J
Total	6.25×10^{23}	8.06×10^{23}	5.73×10^{22}	1.49×10^{24}	J

Nigeria

Area of Country $9.23 \times 10^5 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	3.60×10^{23}	5.33×10^{23}	1.33×10^{22}	9.06×10^{23}	J
Resource Stored in Water	9.95×10^{22}	5.22×10^{22}	4.54×10^{20}	1.52×10^{23}	J
Total	4.59×10^{23}	5.85×10^{23}	1.38×10^{22}	1.06×10^{24}	J

Norway

Area of Country $3.24 \times 10^5 \text{ km}^2$
Mean Annual Temperature 4.0°C
100% of the Country has a Gradient of 20°C/km

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.76×10^{23}	1.58×10^{22}	0	1.91×10^{23}	J
Resource Stored in Water	3.62×10^{22}	6.15×10^{20}	0	3.68×10^{22}	J
Total	2.12×10^{23}	1.64×10^{22}	0	2.28×10^{23}	J

Oman

Area of Country $2.12 \times 10^5 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	8.26×10^{22}	1.22×10^{23}	3.06×10^{21}	2.08×10^{23}	J
Resource Stored in Water	2.29×10^{22}	1.20×10^{22}	1.04×10^{20}	3.50×10^{22}	J
Total	1.06×10^{23}	1.34×10^{23}	3.17×10^{21}	2.43×10^{23}	J

APPENDIX CONTINUED

Pakistan

Area of Country	$8.04 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	24.0°C			
Fraction of Country in Geothermal Belt	0.500			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.80×10^{23}	4.02×10^{23}	1.80×10^{23}	$8.63 \times 10^{23} \text{ J}$
Resource Stored in Water	7.97×10^{22}	4.74×10^{22}	1.39×10^{22}	$1.41 \times 10^{23} \text{ J}$
Total	3.60×10^{23}	4.50×10^{23}	1.94×10^{23}	$1.00 \times 10^{24} \text{ J}$

Panama

Area of Country	$7.57 \times 10^4 \text{ km}^2$			
Mean Annual Temperature	26.0°C			
Fraction of Country in Geothermal Belt	1.000			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.27×10^{22}	3.29×10^{22}	3.59×10^{22}	$9.15 \times 10^{22} \text{ J}$
Resource Stored in Water	6.82×10^{21}	5.04×10^{21}	2.82×10^{21}	$1.47 \times 10^{22} \text{ J}$
Total	2.95×10^{22}	3.80×10^{22}	3.87×10^{22}	$1.06 \times 10^{23} \text{ J}$

Papua New Guinea

Area of Country	$4.62 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	26.0°C			
Fraction of Country in Geothermal Belt	0.600			
Type of Geothermal Belt	Volcanic			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.24×10^{23}	1.81×10^{23}	3.43×10^{23}	$6.48 \times 10^{23} \text{ J}$
Resource Stored in Water	3.76×10^{22}	2.80×10^{22}	3.84×10^{22}	$1.04 \times 10^{23} \text{ J}$
Total	1.62×10^{23}	2.09×10^{23}	3.82×10^{23}	$7.52 \times 10^{23} \text{ J}$

Paraguay

Area of Country	$4.07 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	24.0°C			
Fraction of Country in Geothermal Belt	0.300			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.49×10^{23}	2.14×10^{23}	5.46×10^{22}	$4.18 \times 10^{23} \text{ J}$
Resource Stored in Water	4.18×10^{22}	2.31×10^{22}	4.23×10^{21}	$6.91 \times 10^{22} \text{ J}$
Total	1.91×10^{23}	2.37×10^{23}	5.89×10^{22}	$4.87 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Peru

Area of Country $1.29 \times 10^6 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	3.86×10^{23}	5.61×10^{23}	6.12×10^{23}	1.56×10^{24}	J
Resource Stored in Water	1.16×10^{23}	8.58×10^{22}	4.81×10^{22}	2.50×10^{23}	J
Total	5.02×10^{23}	6.47×10^{23}	6.60×10^{23}	1.81×10^{24}	J

Phillipines

Area of Country $3.00 \times 10^5 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	9.03×10^{22}	1.31×10^{23}	1.38×10^{23}	3.59×10^{23}	J
Resource Stored in Water	2.71×10^{22}	1.97×10^{22}	1.08×10^{22}	5.76×10^{22}	J
Total	1.17×10^{23}	1.50×10^{23}	1.49×10^{23}	4.17×10^{23}	J

Pitcairn Island

Area of Country $4.60 \times 10 \text{ km}^2$
Mean Annual Temperature 23.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.83×10^{18}	2.54×10^{18}	0	4.36×10^{18}	J
Resource Stored in Water	4.96×10^{17}	2.35×10^{17}	0	7.32×10^{17}	J
Total	2.32×10^{18}	2.77×10^{18}	0	5.09×10^{18}	J

Poland

Area of Country $3.13 \times 10^5 \text{ km}^2$
Mean Annual Temperature 9.0°C
70% of the Country has a Gradient of 21°C/km
30% of the Country has a Gradient of 33°C/km

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.41×10^{23}	7.74×10^{22}	2.62×10^{22}	2.44×10^{23}	J
Resource Stored in Water	3.32×10^{22}	7.12×10^{21}	1.44×10^{21}	4.18×10^{22}	J
Total	1.74×10^{23}	8.46×10^{22}	2.77×10^{22}	2.86×10^{23}	J

APPENDIX CONTINUED

Portugal

Area of Country $9.21 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 16.0°C
 Fraction of Country in Geothermal Belt 0.050
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	3.74×10^{22}	4.23×10^{22}	1.58×10^{21}	8.13×10^{22}	J
Resource Stored in Water	9.79×10^{21}	3.64×10^{21}	1.17×10^{20}	1.35×10^{22}	J
Total	4.72×10^{22}	4.59×10^{22}	1.70×10^{21}	9.48×10^{22}	J

Puerto Rico

Area of Country $8.89 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.68×10^{21}	3.87×10^{21}	4.10×10^{21}	1.06×10^{22}	J
Resource Stored in Water	8.03×10^{20}	5.84×10^{20}	3.20×10^{20}	1.71×10^{21}	J
Total	3.48×10^{21}	4.46×10^{21}	4.42×10^{21}	1.24×10^{22}	J

Qatar

Area of Country $1.10 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 25.0°C
 Fraction of Country in Geothermal Belt 0.000
 Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	4.32×10^{21}	6.36×10^{21}	0	1.07×10^{22}	J
Resource Stored in Water	1.19×10^{21}	6.07×10^{20}	0	1.79×10^{21}	J
Total	5.50×10^{21}	6.97×10^{21}	0	1.25×10^{22}	J

Réunion

Area of Country $2.51 \times 10^3 \text{ km}^2$
 Mean Annual Temperature 24.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	4.79×10^{20}	6.71×10^{20}	3.02×10^{21}	4.17×10^{21}	J
Resource Stored in Water	1.61×10^{20}	1.57×10^{20}	3.36×10^{20}	6.54×10^{20}	J
Total	6.40×10^{20}	8.28×10^{20}	3.36×10^{21}	4.83×10^{21}	J

APPENDIX CONTINUED

Romania

Area of Country $2.38 \times 10^5 \text{ km}^2$
Mean Annual Temperature 15.0°C
68% of the Country has a Gradient of 25°C/km
32% of the Country has a Gradient of 39°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	8.64×10^{22}	9.94×10^{22}	4.92×10^{22}	$2.35 \times 10^{23} \text{ J}$
Resource Stored in Water	2.33×10^{22}	1.07×10^{22}	3.96×10^{21}	$3.80 \times 10^{22} \text{ J}$
Total	1.10×10^{23}	1.10×10^{23}	5.32×10^{22}	$2.73 \times 10^{23} \text{ J}$

Rwanda

Area of Country $2.63 \times 10^4 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.77×10^{21}	1.14×10^{22}	1.32×10^{22}	$3.24 \times 10^{22} \text{ J}$
Resource Stored in Water	2.36×10^{21}	1.80×10^{21}	1.05×10^{21}	$5.21 \times 10^{21} \text{ J}$
Total	1.01×10^{22}	1.32×10^{22}	1.42×10^{22}	$3.76 \times 10^{22} \text{ J}$

Saint Helena

Area of Country $1.20 \times 10^2 \text{ km}^2$
Mean Annual Temperature 23.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.30×10^{19}	3.21×10^{19}	1.43×10^{20}	$1.98 \times 10^{20} \text{ J}$
Resource Stored in Water	7.71×10^{18}	7.48×10^{18}	1.58×10^{19}	$3.10 \times 10^{19} \text{ J}$
Total	3.08×10^{19}	3.96×10^{19}	1.59×10^{20}	$2.29 \times 10^{20} \text{ J}$

Saint Lucia

Area of Country $6.16 \times 10^2 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.15×10^{20}	1.64×10^{20}	7.72×10^{20}	$1.05 \times 10^{21} \text{ J}$
Resource Stored in Water	3.89×10^{19}	3.95×10^{19}	8.79×10^{19}	$1.66 \times 10^{20} \text{ J}$
Total	1.54×10^{20}	2.04×10^{20}	8.60×10^{20}	$1.22 \times 10^{21} \text{ J}$

APPENDIX CONTINUED

Saint Vincent

Area of Country $3.88 \times 10^2 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	7.28×10^{19}	1.03×10^{20}	4.82×10^{20}	6.58×10^{20}	J
Resource Stored in Water	2.46×10^{19}	2.47×10^{19}	5.45×10^{19}	1.04×10^{20}	J
Total	9.74×10^{19}	1.28×10^{20}	5.36×10^{20}	7.62×10^{20}	J

San Marino

Area of Country $6.10 \times 10 \text{ km}^2$
Mean Annual Temperature 16.0°C
100% of the Country has a Gradient of 10°C/km

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	2.73×10^{19}	0	0	2.73×10^{19}	J
Resource Stored in Water	5.42×10^{18}	0	0	5.42×10^{18}	J
Total	3.27×10^{19}	0	0	3.27×10^{19}	J

Sao Tomé and Príncipe

Area of Country $9.64 \times 10^2 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	1.83×10^{20}	2.57×10^{20}	1.17×10^{21}	1.61×10^{21}	J
Resource Stored in Water	6.16×10^{19}	6.08×10^{19}	1.31×10^{20}	2.54×10^{20}	J
Total	2.45×10^{20}	3.18×10^{20}	1.30×10^{21}	1.87×10^{21}	J

Saudi Arabia

Area of Country $2.15 \times 10^6 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 0.100
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total	
Resource Stored in Rock	8.08×10^{23}	1.21×10^{24}	1.92×10^{23}	2.21×10^{24}	J
Resource Stored in Water	2.27×10^{23}	1.30×10^{23}	1.17×10^{22}	3.69×10^{23}	J
Total	1.04×10^{24}	1.34×10^{24}	2.04×10^{23}	2.58×10^{24}	J

APPENDIX CONTINUED

Senegal

Area of Country	1.96 x 10 ⁵ km ²			
Mean Annual Temperature	25.0°C			
Fraction of Country in Geothermal Belt	0.000			
Type of Geothermal Belt	Not Applicable			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.69 x 10 ²²	1.13 x 10 ²³	0	1.90 x 10 ²³ J
Resource Stored in Water	2.11 x 10 ²²	1.08 x 10 ²²	0	3.20 x 10 ²² J
Total	9.80 x 10 ²²	1.24 x 10 ²³	0	2.22 x 10 ²³ J

Seychelles

Area of Country	2.80 x 10 ² km ²			
Mean Annual Temperature	23.0°C			
Fraction of Country in Geothermal Belt	1.000			
Type of Geothermal Belt	Volcanic			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.38 x 10 ¹⁹	7.49 x 10 ¹⁹	3.34 x 10 ²⁰	4.63 x 10 ²⁰ J
Resource Stored in Water	1.80 x 10 ¹⁹	1.75 x 10 ¹⁹	3.69 x 10 ¹⁹	7.23 x 10 ¹⁹ J
Total	7.18 x 10 ¹⁹	9.24 x 10 ¹⁹	3.71 x 10 ²⁰	5.35 x 10 ²⁰ J

Sierra Leone

Area of Country	7.17 x 10 ⁴ km ²			
Mean Annual Temperature	25.0°C			
Fraction of Country in Geothermal Belt	0.000			
Type of Geothermal Belt	Not Applicable			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.81 x 10 ²²	4.15 x 10 ²²	0	6.96 x 10 ²² J
Resource Stored in Water	7.73 x 10 ²¹	3.95 x 10 ²¹	0	1.17 x 10 ²² J
Total	3.59 x 10 ²²	4.54 x 10 ²²	0	8.13 x 10 ²² J

Singapore

Area of Country	5.81 x 10 ² km ²			
Mean Annual Temperature	24.0°C			
Fraction of Country in Geothermal Belt	0.000			
Type of Geothermal Belt	Not Applicable			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.29 x 10 ²⁰	3.28 x 10 ²⁰	0	5.57 x 10 ²⁰ J
Resource Stored in Water	6.27 x 10 ¹⁹	3.09 x 10 ¹⁹	0	9.36 x 10 ¹⁹ J
Total	2.92 x 10 ²⁰	3.59 x 10 ²⁰	0	6.51 x 10 ²⁰ J

APPENDIX CONTINUED

Solomon Islands

Area of Country	$2.84 \times 10^4 \text{ km}^2$			
Mean Annual Temperature	27.0°C			
Fraction of Country in Geothermal Belt	1.000			
Type of Geothermal Belt	Volcanic			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.33×10^{21}	7.57×10^{21}	3.53×10^{22}	$4.82 \times 10^{22} \text{ J}$
Resource Stored in Water	1.80×10^{21}	1.81×10^{21}	3.99×10^{21}	$7.60 \times 10^{21} \text{ J}$
Total	7.13×10^{21}	9.38×10^{21}	3.92×10^{22}	$5.58 \times 10^{22} \text{ J}$

Somalia

Area of Country	$6.38 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	28.0°C			
Fraction of Country in Geothermal Belt	0.400			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.23×10^{23}	3.31×10^{23}	1.45×10^{23}	$6.98 \times 10^{23} \text{ J}$
Resource Stored in Water	6.41×10^{22}	4.82×10^{22}	1.08×10^{22}	$1.15 \times 10^{23} \text{ J}$
Total	2.87×10^{23}	3.71×10^{23}	1.55×10^{23}	$8.13 \times 10^{23} \text{ J}$

South Africa, Republic of

Area of Country	$1.22 \times 10^6 \text{ km}^2$			
Mean Annual Temperature	21.0°C			
Fraction of Country in Geothermal Belt	0.000			
Type of Geothermal Belt	Not Applicable			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	4.90×10^{23}	6.41×10^{23}	0	$1.13 \times 10^{24} \text{ J}$
Resource Stored in Water	1.32×10^{23}	5.78×10^{22}	0	$1.89 \times 10^{23} \text{ J}$
Total	6.21×10^{23}	6.98×10^{23}	0	$1.32 \times 10^{24} \text{ J}$

Spain

Area of Country	$5.05 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	16.0°C			
Fraction of Country in Geothermal Belt	0.050			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.05×10^{23}	2.32×10^{23}	8.66×10^{21}	$4.46 \times 10^{23} \text{ J}$
Resource Stored in Water	5.37×10^{22}	2.00×10^{22}	6.42×10^{20}	$7.43 \times 10^{22} \text{ J}$
Total	2.59×10^{23}	2.52×10^{23}	9.30×10^{21}	$5.20 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Sri Lanka

Area of Country $6.56 \times 10^4 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.57×10^{22}	3.79×10^{22}	0	$6.37 \times 10^{22} \text{ J}$
Resource Stored in Water	7.08×10^{21}	3.62×10^{21}	0	$1.07 \times 10^{22} \text{ J}$
Total	3.28×10^{22}	4.15×10^{22}	0	$7.44 \times 10^{22} \text{ J}$

Sudan

Area of Country $2.51 \times 10^6 \text{ km}^2$
Mean Annual Temperature 29.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.59×10^{23}	1.44×10^{24}	1.46×10^{23}	$2.55 \times 10^{24} \text{ J}$
Resource Stored in Water	2.70×10^{23}	1.53×10^{23}	5.50×10^{21}	$4.28 \times 10^{23} \text{ J}$
Total	1.23×10^{24}	1.60×10^{24}	1.52×10^{23}	$2.98 \times 10^{24} \text{ J}$

Surinam

Area of Country $1.63 \times 10^5 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.31×10^{22}	9.40×10^{22}	4.72×10^{21}	$1.62 \times 10^{23} \text{ J}$
Resource Stored in Water	1.76×10^{22}	9.45×10^{21}	1.66×10^{20}	$2.72 \times 10^{22} \text{ J}$
Total	8.07×10^{22}	1.03×10^{23}	4.89×10^{21}	$1.89 \times 10^{23} \text{ J}$

Swaziland

Area of Country $1.74 \times 10^4 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.87×10^{21}	9.83×10^{21}	0	$1.67 \times 10^{22} \text{ J}$
Resource Stored in Water	1.88×10^{21}	9.25×10^{20}	0	$2.80 \times 10^{21} \text{ J}$
Total	8.74×10^{21}	1.08×10^{22}	0	$1.95 \times 10^{22} \text{ J}$

APPENDIX CONTINUED

Sweden

Area of Country $4.50 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 4.0°C
 100% of the Country has a Gradient of 20°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.44×10^{23}	2.20×10^{22}	0	$2.66 \times 10^{23} \text{ J}$
Resource Stored in Water	5.03×10^{22}	8.54×10^{20}	0	$5.11 \times 10^{22} \text{ J}$
Total	2.94×10^{23}	2.28×10^{22}	0	$3.17 \times 10^{23} \text{ J}$

Switzerland

Area of Country $4.13 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 11.0°C
 41% of the Country has a Gradient of 33°C/km
 59% of the Country has a Gradient of 41°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.13×10^{22}	1.55×10^{22}	2.19×10^{22}	$4.86 \times 10^{22} \text{ J}$
Resource Stored in Water	3.37×10^{21}	2.42×10^{21}	1.68×10^{21}	$7.47 \times 10^{21} \text{ J}$
Total	1.47×10^{22}	1.79×10^{22}	2.35×10^{22}	$5.61 \times 10^{22} \text{ J}$

Syria

Area of Country $1.85 \times 10^5 \text{ km}^2$
 Mean Annual Temperature 21.0°C
 Fraction of Country in Geothermal Belt 0.500
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.56×10^{22}	8.91×10^{22}	3.77×10^{22}	$1.92 \times 10^{23} \text{ J}$
Resource Stored in Water	1.84×10^{22}	1.01×10^{22}	2.87×10^{21}	$3.14 \times 10^{22} \text{ J}$
Total	8.40×10^{22}	9.92×10^{22}	4.06×10^{22}	$2.24 \times 10^{23} \text{ J}$

Taiwan

Area of Country $3.60 \times 10^4 \text{ km}^2$
 Mean Annual Temperature 21.0°C
 Fraction of Country in Geothermal Belt 1.000
 Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.11×10^{22}	1.58×10^{22}	1.47×10^{22}	$4.15 \times 10^{22} \text{ J}$
Resource Stored in Water	3.27×10^{21}	2.24×10^{21}	1.12×10^{21}	$6.62 \times 10^{21} \text{ J}$
Total	1.44×10^{22}	1.80×10^{22}	1.58×10^{22}	$4.81 \times 10^{22} \text{ J}$

APPENDIX CONTINUED

Tanzania

Area of Country $9.45 \times 10^5 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 0.900
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.90×10^{23}	4.24×10^{23}	4.17×10^{23}	$1.13 \times 10^{24} \text{ J}$
Resource Stored in Water	8.67×10^{22}	6.28×10^{22}	3.29×10^{22}	$1.82 \times 10^{23} \text{ J}$
Total	3.76×10^{23}	4.87×10^{23}	4.50×10^{23}	$1.31 \times 10^{24} \text{ J}$

Thailand

Area of Country $5.14 \times 10^5 \text{ km}^2$
Mean Annual Temperature 24.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.03×10^{23}	2.90×10^{23}	0	$4.93 \times 10^{23} \text{ J}$
Resource Stored in Water	5.55×10^{22}	2.73×10^{22}	0	$8.28 \times 10^{22} \text{ J}$
Total	2.58×10^{23}	3.18×10^{23}	0	$5.76 \times 10^{23} \text{ J}$

Togo

Area of Country $5.60 \times 10^4 \text{ km}^2$
Mean Annual Temperature 26.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.18×10^{22}	3.23×10^{22}	8.09×10^{20}	$5.50 \times 10^{22} \text{ J}$
Resource Stored in Water	6.04×10^{21}	3.17×10^{21}	2.75×10^{19}	$9.23 \times 10^{21} \text{ J}$
Total	2.79×10^{22}	3.55×10^{22}	8.36×10^{20}	$6.42 \times 10^{22} \text{ J}$

Tonga

Area of Country $6.99 \times 10^2 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.31×10^{20}	1.86×10^{20}	8.68×10^{20}	$1.19 \times 10^{21} \text{ J}$
Resource Stored in Water	4.44×10^{19}	4.46×10^{19}	9.82×10^{19}	$1.87 \times 10^{20} \text{ J}$
Total	1.76×10^{20}	2.31×10^{20}	9.66×10^{20}	$1.37 \times 10^{21} \text{ J}$

APPENDIX CONTINUED

Trinidad & Tobago

Area of Country	$5.13 \times 10^3 \text{ km}^2$			
Mean Annual Temperature	27.0°C			
Fraction of Country in Geothermal Belt	1.000			
Type of Geothermal Belt	Volcanic			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.63×10^{20}	1.37×10^{21}	6.37×10^{21}	$8.70 \times 10^{21} \text{ J}$
Resource Stored in Water	3.26×10^{20}	3.27×10^{20}	7.20×10^{20}	$1.37 \times 10^{21} \text{ J}$
Total	1.29×10^{21}	1.69×10^{21}	7.09×10^{21}	$1.01 \times 10^{22} \text{ J}$

Tunisia

Area of Country	$1.64 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	20.0°C			
Fraction of Country in Geothermal Belt	0.500			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.85×10^{22}	7.79×10^{22}	3.24×10^{22}	$1.69 \times 10^{23} \text{ J}$
Resource Stored in Water	1.63×10^{22}	8.76×10^{21}	2.44×10^{21}	$2.75 \times 10^{22} \text{ J}$
Total	7.47×10^{22}	8.67×10^{22}	3.48×10^{22}	$1.96 \times 10^{23} \text{ J}$

Turkey

Area of Country	$7.81 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	17.0°C			
61% of the Country has a Gradient of 30°C/km				
39% of the Country has a Gradient of 47°C/km				
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	2.25×10^{23}	3.14×10^{23}	4.08×10^{23}	$9.46 \times 10^{23} \text{ J}$
Resource Stored in Water	6.65×10^{22}	4.62×10^{22}	3.60×10^{22}	$1.49 \times 10^{23} \text{ J}$
Total	2.91×10^{23}	3.60×10^{23}	4.44×10^{23}	$1.10 \times 10^{24} \text{ J}$

Turks & Caicas Islands

Area of Country	$4.30 \times 10^2 \text{ km}^2$			
Mean Annual Temperature	25.0°C			
Fraction of Country in Geothermal Belt	0.000			
Type of Geothermal Belt	Not Applicable			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.69×10^{20}	2.49×10^{20}	0	$4.17 \times 10^{20} \text{ J}$
Resource Stored in Water	4.64×10^{19}	2.37×10^{19}	0	$7.01 \times 10^{19} \text{ J}$
Total	2.15×10^{20}	2.72×10^{20}	0	$4.87 \times 10^{20} \text{ J}$

APPENDIX CONTINUED

Tuvalu

Area of Country $2.50 \times 10^2 \text{ km}^2$
Mean Annual Temperature 27.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.68×10^{18}	1.44×10^{19}	7.24×10^{17}	$2.48 \times 10^{19} \text{ J}$
Resource Stored in Water	2.69×10^{18}	1.45×10^{18}	2.55×10^{16}	$4.17 \times 10^{18} \text{ J}$
Total	1.24×10^{19}	1.59×10^{19}	7.50×10^{17}	$2.90 \times 10^{19} \text{ J}$

Uganda

Area of Country $2.36 \times 10^5 \text{ km}^2$
Mean Annual Temperature 28.0°C
Fraction of Country in Geothermal Belt 1.000
Type of Geothermal Belt Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.97×10^{22}	1.02×10^{23}	1.18×10^{23}	$2.90 \times 10^{23} \text{ J}$
Resource Stored in Water	2.12×10^{22}	1.61×10^{22}	9.44×10^{21}	$4.67 \times 10^{22} \text{ J}$
Total	9.09×10^{22}	1.19×10^{23}	1.28×10^{23}	$3.37 \times 10^{23} \text{ J}$

United Arab Emirates

Area of Country $8.36 \times 10^4 \text{ km}^2$
Mean Annual Temperature 25.0°C
Fraction of Country in Geothermal Belt 0.000
Type of Geothermal Belt Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.28×10^{22}	4.83×10^{22}	0	$8.11 \times 10^{22} \text{ J}$
Resource Stored in Water	9.02×10^{21}	4.61×10^{21}	0	$1.36 \times 10^{22} \text{ J}$
Total	4.18×10^{22}	5.29×10^{22}	0	$9.48 \times 10^{22} \text{ J}$

United Kingdom

Area of Country $2.44 \times 10^5 \text{ km}^2$
Mean Annual Temperature 10.0°C
81% of the Country has a Gradient of 24°C/km
19% of the Country has a Gradient of 45°C/km

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.71×10^{22}	8.07×10^{22}	3.91×10^{22}	$2.17 \times 10^{23} \text{ J}$
Resource Stored in Water	2.46×10^{22}	7.50×10^{21}	3.59×10^{21}	$3.57 \times 10^{22} \text{ J}$
Total	1.22×10^{23}	8.82×10^{22}	4.27×10^{22}	$2.53 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

United States

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$9.36 \times 10^6 \text{ km}^2$
15.0°C
0.350
Complex

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.55×10^{24}	4.17×10^{24}	1.08×10^{24}	$8.79 \times 10^{24} \text{ J}$
Resource Stored in Water	9.48×10^{23}	4.11×10^{23}	8.00×10^{22}	$1.44 \times 10^{24} \text{ J}$
Total	4.49×10^{24}	4.58×10^{24}	1.16×10^{24}	$1.02 \times 10^{25} \text{ J}$

United States Virgin Islands

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$3.44 \times 10^2 \text{ km}^2$
25.0°C
1.000
Volcanic

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	6.53×10^{19}	9.19×10^{19}	4.19×10^{20}	$5.76 \times 10^{20} \text{ J}$
Resource Stored in Water	2.20×10^{19}	2.17×10^{19}	4.68×10^{19}	$9.05 \times 10^{19} \text{ J}$
Total	8.73×10^{19}	1.14×10^{20}	4.65×10^{20}	$6.66 \times 10^{20} \text{ J}$

Upper Volta

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$2.74 \times 10^5 \text{ km}^2$
27.0°C
0.000
Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.06×10^{23}	1.58×10^{23}	7.94×10^{21}	$2.72 \times 10^{23} \text{ J}$
Resource Stored in Water	2.95×10^{22}	1.59×10^{22}	2.80×10^{20}	$4.57 \times 10^{22} \text{ J}$
Total	1.36×10^{23}	1.74×10^{23}	8.22×10^{21}	$3.18 \times 10^{23} \text{ J}$

Uruguay

Area of Country
Mean Annual Temperature
Fraction of Country in Geothermal Belt
Type of Geothermal Belt

$1.76 \times 10^5 \text{ km}^2$
21.0°C
0.000
Not Applicable

	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	7.06×10^{22}	9.24×10^{22}	0	$1.63 \times 10^{23} \text{ J}$
Resource Stored in Water	1.90×10^{22}	8.34×10^{21}	0	$2.73 \times 10^{22} \text{ J}$
Total	8.96×10^{22}	1.01×10^{23}	0	$1.90 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Union of Soviet Socialist Republics

Area of Country	$2.24 \times 10^7 \text{ km}^2$			
Mean Annual Temperature	-1.0°C			
Fraction of Country in Geothermal Belt	0.050			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	9.47×10^{24}	5.89×10^{24}	1.60×10^{23}	$1.55 \times 10^{25} \text{ J}$
Resource Stored in Water	2.23×10^{24}	3.84×10^{23}	1.35×10^{22}	$2.63 \times 10^{24} \text{ J}$
Total	1.17×10^{25}	6.27×10^{24}	1.74×10^{23}	$1.81 \times 10^{25} \text{ J}$

Venezuela

Area of Country	$9.12 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	27.0°C			
Fraction of Country in Geothermal Belt	0.200			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	3.37×10^{23}	5.00×10^{23}	1.10×10^{23}	$9.47 \times 10^{23} \text{ J}$
Resource Stored in Water	9.50×10^{22}	5.46×10^{22}	7.79×10^{21}	$1.57 \times 10^{23} \text{ J}$
Total	4.32×10^{23}	5.54×10^{23}	1.18×10^{23}	$1.10 \times 10^{24} \text{ J}$

Vietnam

Area of Country	$3.32 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	23.0°C			
Fraction of Country in Geothermal Belt	0.000			
Type of Geothermal Belt	Not Applicable			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.32×10^{23}	1.83×10^{23}	0	$3.15 \times 10^{23} \text{ J}$
Resource Stored in Water	3.58×10^{22}	1.70×10^{22}	0	$5.28 \times 10^{22} \text{ J}$
Total	1.68×10^{23}	2.00×10^{23}	0	$3.68 \times 10^{23} \text{ J}$

Western Sahara

Area of Country	$2.66 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	20.0°C			
Fraction of Country in Geothermal Belt	0.020			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.07×10^{23}	1.36×10^{23}	2.10×10^{21}	$2.45 \times 10^{23} \text{ J}$
Resource Stored in Water	2.86×10^{22}	1.22×10^{22}	1.59×10^{20}	$4.09 \times 10^{22} \text{ J}$
Total	1.35×10^{23}	1.48×10^{23}	2.26×10^{21}	$2.86 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Western Samoa

Area of Country	$2.84 \times 10^3 \text{ km}^2$			
Mean Annual Temperature	27.0°C			
Fraction of Country in Geothermal Belt	1.000			
Type of Geothermal Belt	Volcanic			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.33×10^{20}	7.57×10^{20}	3.53×10^{21}	$4.82 \times 10^{21} \text{ J}$
Resource Stored in Water	1.80×10^{20}	1.81×10^{20}	3.99×10^{20}	$7.60 \times 10^{20} \text{ J}$
Total	7.13×10^{20}	9.38×10^{20}	3.92×10^{21}	$5.58 \times 10^{21} \text{ J}$

Yemen Arab Republic

Area of Country	$1.95 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	28.0°C			
Fraction of Country in Geothermal Belt	1.000			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	5.76×10^{22}	8.46×10^{22}	9.77×10^{22}	$2.40 \times 10^{23} \text{ J}$
Resource Stored in Water	1.75×10^{22}	1.33×10^{22}	7.80×10^{21}	$3.86 \times 10^{22} \text{ J}$
Total	7.51×10^{22}	9.79×10^{22}	1.06×10^{23}	$2.79 \times 10^{23} \text{ J}$

Yemen, Peoples Democratic Republic of

Area of Country	$3.33 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	28.0°C			
Fraction of Country in Geothermal Belt	0.050			
Type of Geothermal Belt	Complex			
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.27×10^{23}	1.89×10^{23}	2.21×10^{22}	$3.38 \times 10^{23} \text{ J}$
Resource Stored in Water	3.55×10^{22}	1.99×10^{22}	1.17×10^{21}	$5.66 \times 10^{22} \text{ J}$
Total	1.62×10^{23}	2.09×10^{23}	2.33×10^{22}	$3.95 \times 10^{23} \text{ J}$

Yugoslavia

Area of Country	$2.56 \times 10^5 \text{ km}^2$			
Mean Annual Temperature	16.0°C			
67% of the Country has a Gradient of 22°C/km				
33% of the Country has a Gradient of 42°C/km				
	Class 1	Class 2	Class 3	Total
Resource Stored in Rock	1.01×10^{23}	8.13×10^{22}	6.67×10^{22}	$2.49 \times 10^{23} \text{ J}$
Resource Stored in Water	2.60×10^{22}	9.00×10^{21}	5.95×10^{21}	$4.09 \times 10^{22} \text{ J}$
Total	1.27×10^{23}	9.03×10^{22}	7.27×10^{22}	$2.90 \times 10^{23} \text{ J}$

APPENDIX CONTINUED

Zaire

Area of Country		$2.36 \times 10^6 \text{ km}^2$			
Mean Annual Temperature		28.0°C			
Fraction of Country in Geothermal Belt		0.050			
Type of Geothermal Belt		Complex			
		Class 1	Class 2	Class 3	Total
Resource Stored in Rock		8.97×10^{23}	1.34×10^{24}	1.57×10^{23}	$2.40 \times 10^{24} \text{ J}$
Resource Stored in Water		2.52×10^{23}	1.41×10^{23}	8.28×10^{21}	$4.01 \times 10^{23} \text{ J}$
Total		1.15×10^{24}	1.48×10^{24}	1.65×10^{23}	$2.80 \times 10^{24} \text{ J}$

Zambia

Area of Country		$7.53 \times 10^5 \text{ km}^2$			
Mean Annual Temperature		26.0°C			
Fraction of Country in Geothermal Belt		0.100			
Type of Geothermal Belt		Complex			
		Class 1	Class 2	Class 3	Total
Resource Stored in Rock		2.87×10^{23}	4.24×10^{23}	4.55×10^{22}	$7.56 \times 10^{23} \text{ J}$
Resource Stored in Water		7.98×10^{22}	4.34×10^{22}	3.14×10^{21}	$1.26 \times 10^{23} \text{ J}$
Total		3.67×10^{23}	4.67×10^{23}	4.86×10^{22}	$8.83 \times 10^{23} \text{ J}$

Zimbabwe

Area of Country		$3.91 \times 10^5 \text{ km}^2$			
Mean Annual Temperature		25.0°C			
Fraction of Country in Geothermal Belt		0.150			
Type of Geothermal Belt		Complex			
		Class 1	Class 2	Class 3	Total
Resource Stored in Rock		1.48×10^{23}	2.18×10^{23}	2.70×10^{22}	$3.93 \times 10^{23} \text{ J}$
Resource Stored in Water		4.11×10^{22}	2.22×10^{22}	2.11×10^{21}	$6.54 \times 10^{22} \text{ J}$
Total		1.89×10^{23}	2.40×10^{23}	2.91×10^{22}	$4.58 \times 10^{23} \text{ J}$