COMPARING ENERGY RESOURCES

An Analytical Adventure

Use the information in the table below to complete the tasks and answer the questions. Remember, read the directions CLOSELY and take each step ONE by ONE.

System costs/Megawatt (2010 USD)

| | Minimum | Maximum | |
|-------------------------|---------|---------|--|
| Coal | \$90.1 | \$162.3 | |
| Natural gas | \$61.8 | \$164.1 | |
| Advanced Nuclear | \$108.4 | \$120.1 | |
| Geothermal | \$85.0 | \$113.9 | |
| Biomass | \$101.5 | \$142.8 | |
| Wind | \$78.2 | \$114.1 | |
| Solar Photovoltaic cell | \$122.2 | \$245.6 | |
| Solar Thermal | \$182.7 | \$400.7 | |
| Hydropower | \$57.8 | \$147.6 | |

- I. Add a column next the maximum, title it AVERAGE COST, and calculate the average cost for each energy source.

 *Remember... Average = minimum + maximum total divided by two.
- 2. Sort the total list of energy sources into this table. An example has been done for you.

| RENEW ABLE RESOURCES | NONRENEW ABLE RESOURCES |
|----------------------|-------------------------|
| | I. Coal |
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| 3. | Create graph of the information from the table above. You will be using the averages column that you calculated earlier. GRAPHING HINTS: Make sure that you have included the average costs (minimum + maximum divided by 2) for each energy source as well as |
| | a. Title b. axes labeled c. uniform set interval for costs d. information labeled |
| 4. | Based on your graph, answer the following questions. a. Which energy source has the lowest AVERAGE cost per Megawatt? |
| | b. Which energy source has the highest AVERAGE cost per Megawatt? |
| 5. | You are a city manager who has to determine the energy source for your city. Based on costs, pros and cons from your article and your graph, identify the source of energy you would use and why. Explain your selection detailing your evidence from the table, graph, and any other information in six sentences. (You may write on another sheet of paper if necessary). |
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