

Web Exploration: Exploring Energy Sources

Learning goals

After completing this activity, you will be able to ...

- Identify the nine most common energy sources used in the United States.
- Describe how these nine energy sources are used.

Vocabulary: biomass, fossil fuel, geothermal energy, hydropower, nonrenewable, nuclear power, renewable, solar energy, wind energy

Sources of energy

Energy sources are used to power transportation (such as automobiles, airplanes, and ships), produce electricity, and manufacture products. The graph at right shows the different forms of energy sources used in the United States.

Notice on the graph that **renewable** energy sources are separated out further into **solar energy**, **geothermal energy**, **wind energy**, **hydropower**, and **biomass**.

These five different types of energy sources are considered renewable because they either will never run out or they can be replaced or, in the case of biomass, regrown very quickly.

The other forms of energy listed on the graph are considered to be **nonrenewable**. Three of these energy sources—petroleum, natural gas, and coal—are **fossil fuels**. The other nonrenewable energy source, **nuclear power**, uses uranium as a fuel.

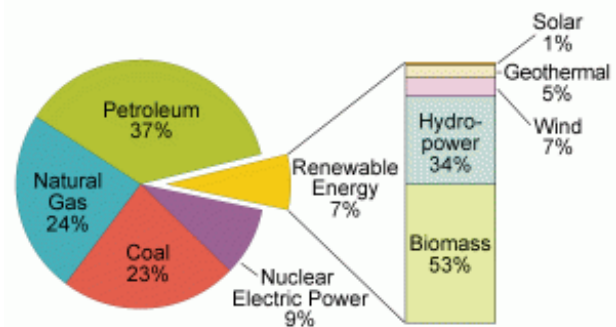
Perform Internet Research

Get into groups of three. Each person in the group will be responsible for researching one of the energy sources listed on the graph. The nine energy sources are:

- | | | |
|---------------|---------------|---------------------|
| • Petroleum | • Hydropower | • Nuclear power |
| • Natural gas | • Wind energy | • Solar energy |
| • Coal | • Biomass | • Geothermal energy |

U.S. Energy Consumption by Energy Source, 2008

Total = 99.305 Quadrillion Btu Total = 7.301 Quadrillion Btu



Note: Sum of components may not equal 100% due to independent rounding.

Source: EIA, *Renewable Energy Consumption and Electricity 2008 Statistics*, Table 1: U.S. Energy Consumption by Energy Source, 2004-2008 (July 2009).

Put Together a Presentation

Use your research to create a short slideshow (such as a PowerPoint presentation), Web page, or bulletin board that gives information about what the energy source is and how that energy source is used.

Share your presentation with your class. After viewing your classmates' presentations, work together with your classmates to compare and contrast each of the nine different energy sources. Discuss why you think some of the energy sources are more commonly used than the other energy sources. Also, try to come up with ideas about what makes an energy source more useful than an alternative energy source.