Vocabulary/Ch. 12

Friedland

**nonrenewable**: An energy source with a finite supply, primarily the fossil fuels and nuclear fuels

**fossil fuels**: A fuel derived from biological material that became fossilized millions of years ago

**nuclear fuels**: Fuel derived from radioactive materials that give off energy

**commercial energy sources**: An energy source that is bought and sold

**subsistence energy sources**: Energy sources gathered by individuals for their own immediate needs

**energy carrier**: Something that can move and deliver energy in a convenient, usable form to end users

**turbine**: A device with blades that can be turned by water, wind, steam, or exhaust gas from combustion that turns a generator in an electricity-producing plant

**electrical grid**: A network of interconnected transmission lines that joins power plants together and links them with end users of electricity

**combined cycle**: A power plant that uses both exhaust gases and steam turbines to generate electricity

**capacity**: In reference to an electricity-generating plant, the maximum electrical output

**capacity factor**: The fraction of time a power plant operates in a year

**cogeneration**: The use of a single fuel to generate electricity and to produce heat

**coal**: Solid fuel formed primarily from the remains of trees, ferns, and other plant materials preserved 280 to 360 million years ago

**petroleum**: A fossil fuel that occurs in underground deposits, composed of a liquid mixture of hydrocarbons, water, and sulfur

**crude oil**: Liquid petroleum removed from the ground

**oil sands**: Slow-flowing viscous deposits of bitumen mixed with sand, water, and clay

**bitumen**: A degraded petroleum that forms when petroleum migrates to the surface of Earth and is modified by bacteria; also called tar or pitch

**energy intensity**: The energy use per unit of gross domestic product

**Hubbert curve**: A bell-shaped curve representing oil use and projecting both when world oil production will reach a maximum and when we will run oil of oil

**peak oil**: The point at which half the total known oil supply is used up

**fission**: A nuclear reaction in which a neutron strikes a relatively large atomic nucleus, which then splits into two or more parts, releasing additional neutrons and energy in the form of heat

**fuel rods**: A cylindrical tube that encloses nuclear fuel within a nuclear reactor

**control rods**: A cylindrical device inserted between the fuel rods in a nuclear reactor to absorb excess neutrons and slow or stop the fission reaction

**radioactive waste**: Nuclear fuel that can no longer produce enough heat to be useful in a power plant but continues to emit radioactivity

**Becquerel (Bq)**: Unit that measures the rate at which a sample of radioactive material decays. One of them equals the decay of 1 atom or nucleus per second.

**Curie**: A unit of measure for radiation. One of them equals 37 billion decays per second

**nuclear fusion**: A reaction that occurs when lighter nuclei are forced together to produce heavier nuclei