

peak oil (Hubbert peak)—an influential theory that concerns the long-term rate of conventional oil (and other fossil fuel) extraction and depletion. It predicts that future world oil production will soon reach a peak and then rapidly decline.

petroleum—a hydrocarbon that forms as sediments are buried and pressurized.

photovoltaic cell (PV cell)—a semiconductor device that converts the energy of sunlight into electric energy.

potential energy—energy at rest, or stored energy.

proven reserve—an estimate of the amount of fossil fuel that can be obtained from reserve.

radiant energy—sunlight.

scrubbers—devices containing alkaline substances that precipitate out much of the sulfur dioxide from industrial plants.

Second Law of Thermodynamics—says that the entropy (disorder) of the universe is increasing. One corollary of the Second Law of Thermodynamics is the concept that, in most energy transformations, a significant fraction of energy is lost to the universe as heat.

strip mining—involves the removal of the Earth's surface all the way down to the level of the mineral seam.

subbituminous—the third purest form of coal.

underground mining—involves the sinking of shafts to reach underground deposits. In this type of mining, networks of tunnels are dug or blasted and humans enter these tunnels in order to manually retrieve the coal.

nacelle—the base of a windmill.

wind farm—a group of modern windmills.

CHAPTER 8: POLLUTION

acid precipitation—acid rain, acid hail, acid snow; all of which occur as a result of pollution in the atmosphere.

acute effect—the effect caused by a short exposure to a high level of toxin.

catalytic converter—a platinum-coated device that oxidizes most of the VOCs and some of the CO that would otherwise be emitted in exhaust, converting them to CO₂.

closed-loop recycling—when materials, such as plastic or aluminum, are used to rebuild the same product. An example of this is the use of the aluminum from aluminum cans to produce more aluminum cans.

composting—a process that allows the organic material in solid waste to be decomposed and reintroduced into the soil, often as fertilizer.

building-related illness—when the signs and symptoms of an illness can be attributed to a specific infectious organism that resides in the building.