

*Text in italics refers to other glossary entries.*

**Biomass** — All of the Earth's plant and animal matter. In the renewable energy industry, biomass usually refers to the wood, wood-processing residues, agricultural residues, and *energy crops* that are used to create electricity, generate heat, or produce liquid transportation fuels.

**Energy crops** — Crops grown specifically for their fuel value, including food crops such as corn and sugarcane, and nonfood crops such as willow trees and switchgrass.

**Fossil fuels** — Energy sources formed by the decay of plants, dinosaurs, and other animals over millions of years; coal, oil, and natural gas are fossil fuels. These energy reserves form so slowly in comparison to our rate of energy use that they are regarded as a finite resource.

**Geothermal energy** — Heat energy stored in the Earth's crust, which can be harnessed to produce electricity or to heat water and living spaces.

**Gigawatt (GW)** — 1,000,000,000 watts (see *Watt*)

**Hydropower** — The energy of flowing water, which can be harnessed to make electricity or to do mechanical work.

**Kilowatt (kW)** — 1000 watts (see *Watt*)

**Kilowatt-hour (kWh)** — A unit of electrical energy, equal to 1000 watts of power delivered for a period of one hour (see *Watt*)

**Megawatt (MW)** — 1,000,000 watts (see *Watt*)

**Multiplier effect** — Additional jobs and income created in the economy as a result of an initial expenditure. See page 2 for a detailed explanation.

**Municipal solid waste** — Trash or garbage; it can be used to produce heat or electricity by burning it or by capturing the gases it gives off and using them as fuel.

**Nonrenewable fuels** — Fuels that are not naturally replaced as we use them. This includes *fossil fuels*, nuclear fuels, and *municipal solid waste*.

**Photovoltaics** — A technology for using semiconductors to directly convert light into electricity.

**Renewable energy** — Sources of energy that are either continuously resupplied by the sun or tap inexhaustible resources, such as wind, solar, *biomass*, *hydropower*, and *geothermal energy*.

**Solar heating** — Various technologies for using the sun's energy to heat water and living spaces.

**Solar thermal electric** — A technology for generating electricity from the sun's heat.

**Watt** — Watts are used to measure the total quantity of electricity. One watt is the power developed by an electric current of 1 ampere across a potential of 1 volt.

1 kilowatt (kW) = 1000 watts

1 megawatt (MW) = 1000 kilowatts = 1 million watts

1 gigawatt (GW) = 1000 megawatts = 1 billion watts

Both kW and MW are used to describe the maximum output of an electric generator at a particular moment. Power plant capacities are usually quoted as "rated capacity," measured in kW or MW, which is the greatest amount of power that the plant can deliver at a given instant. The amount of electricity generated or used during a period of time is typically expressed in *kilowatt-hours* (kWh).

**Wind farm** — Another name for a *wind power plant*, so-called because the turbines are usually spread out over a relatively large area of land.

**Wind power plant** — A group of wind turbines connected to a common electricity grid.