

## General Industry Terms

### Annual Consumption

The amount of electricity used by a consumer in one year, measured in kilowatt hours (kWh). Review your electricity bills or contact your electric utility for this information

### Base Load

The minimum amount of electric power delivered or required from a generating system over a specified period of time. Usually measured in megawatts.

### Capacity

A power plant's potential for generating power, measured in kilowatts.

### Conventional Power

Conventional power is produced from traditional fuels such as coal, oil, diesel, nuclear and natural gas.

### Demand

The amount of electricity drawn from an electric system at a given time, measured in kilowatts.

### Distributed Generation

Small generating units that may be placed throughout power supply systems rather than at a central location.

### Fuel Mix

The proportions of each fuel type (e.g. nuclear, coal, solar electric, oil, wind, hydro, etc.) used to generate electricity.

### Grid

A system of interconnected high-voltage transmission lines and power-generating facilities that allows bulk-power suppliers to share resources on a regional basis.

### Kilowatt

The basic unit of electric demand, equals 1,000 watts.

### Kilowatt-Hour

A kilowatt-hour (kWh) is the standard unit of measure for electricity. One kilowatt-hour is equal to 1,000 watt-hours. A 100 watt incandescent light bulb burning for 10 hours uses one kilowatt-hour.

### Load

The amount of electric power drawn at a specific time from an electric system, or the total power drawn from the system.

### Load Management Program

A program by which an electric system seeks to control its customers use of electricity to reduce demand on the system at a time of maximum use. Can involve such techniques as voltage reduction and cutting off air conditioners and water heaters for short periods of time by remote control. Utilities with load management programs usually have rate incentives.

### Megawatt-hour

One thousand kilowatt-hours or 1 million watt-hours. One Super Wal-Mart using electricity for one hour uses about one megawatt-hour.

### Nuclear Power

Electric energy generated using heat produced by an atomic reaction, or the "fissioning" of uranium atoms. Uranium is mined, processed to increase the amount of fissionable material, and made into fuel rods which are then placed in nuclear reactors. As the uranium atoms split inside the reactor, they generate heat which is converted to steam and used to generate electricity.

### Peak Load

The amount of electric power required by a consumer or a system during peak demand (usually during the coldest winter nights or hottest summer days).

### Power Marketing Administration

The umbrella term for five federally owned organizations that sell power produced at federal hydropower projects to preferred customer utilities.

### Service Area

The geographic region that a utility is required to serve, or has the exclusive right to serve.

### Substation

An electrical facility containing equipment for controlling the flow of electricity from supplier to user.

### Transmission

The towers and high voltage lines that transport energy from power plants to the distribution company.

### Watt

The standard unit of electric power. Measure of power that can be generated by electric current.

### Watt-hour

Energy converted or consumed at a rate of one watt during a period of one hour.

## Green Energy Terms

### Cap & Trade

A proposed administrative approach that may be used to control pollution by providing economic incentives. The government would set a limit (cap) on the amount of greenhouse gases emitted, and entities must buy auctioned allowances (trade) equal to the amount of greenhouse gases they anticipate emitting. Leftover allowances can be sold (trade). This increased cost would ultimately fall to consumers. Some consider this approach, although indirect, a tax.

### Carbon Dioxide (CO<sub>2</sub>)

The predominant gas that contributes to the greenhouse gas effect. Carbon dioxide is released into the atmosphere when fossil fuels (coal, natural gas) are burned. Carbon dioxide is also released by natural Earth processes, like volcanic activity.

### Carbon Offset

A financial tool that represents a reduction in greenhouse gas emissions by one metric ton of carbon dioxide or its equivalent in other greenhouse gases. Carbon offsets are purchased to compensate for greenhouse gas emissions and are usually generated from emissions-reducing projects like renewable energy or energy efficiency.

### Carbon Tax

A proposed administrative approach that may be used to control pollution by providing economic incentives. The government would tax fuels at the source and require utilities to pay for the tax. This increased cost would ultimately fall to consumers.

### Clean Coal Technology

A broad term covering any type of new technology for reducing emissions from coal-fired power plants.

### Climate Change

As it is referred to most commonly, climate change is the rise in average global temperature as a result of man-made greenhouse gas emissions.

### Energy Efficiency

Using less energy to perform the same function, which can contribute to a reduction in greenhouse gases and lower costs to consumers.

### Fossil Fuel

Materials such as coal, oil or natural gas used to produce heat or power; also called conventional fuels. These materials were formed in the ground millions of years ago from plant and animal remains.

### Global Warming

Global warming is the rise in the earth's temperature resulting from an increase in heat-trapping gases (mainly carbon dioxide and methane) in the atmosphere. Fossil fuels used in the production of electricity contribute to some of these gases found in the atmosphere. Some manufacturing processes and the use of vehicles are the other significant producers of man-made CO<sub>2</sub>.

### Greenhouse Gases (GHG)

Carbon dioxide, methane and other gases that contribute to the warming of the Earth's atmosphere.

### Green Power

A term used to describe sources of energy that are environmentally friendly, like wind or solar power.

### Net Metering

One method of crediting customers for electricity that they generate on site in excess of their own electricity consumption.

### Photovoltaics

Technology that produces electric power directly from sunlight. A common application is in small pocket calculators.

### Renewable Energy Certificate (REC)

A tradable commodity that represents proof that 1 megawatt hour of electricity was generated from renewable energy resources. A REC can be bought and sold in a market at "market price" to assist utilities in meeting a Renewable Portfolio Standard (RPS).

### Certificate Retirement

Renewable energy certificates are retired when the owner uses the 1 megawatt hour of electricity.

### Renewable Portfolio Standards (RPS)

A state or federal level policy that requires that a minimum amount (usually a percentage) of electricity supply provided by each supply company is to come from renewable energy.

### Renewable Resources

Sources of electricity, such as solar electric, wind, geothermal, biomass and hydroelectric. A resource is called renewable if it can be naturally replenished. In general, renewables have lower environmental impacts than non-renewables.

### Small Power Producer

Generates electricity from facilities much smaller than those of base-load power plants; uses biomass, solid waste, geothermal energy, diesel or renewable resources as its primary energy source.