

PUBLIC UTILITIES COMMISSION

In the United States, a utilities commission, utility regulatory commission, public utilities commission, our public service commission is a governing body that regulates the rates and services of a public utility. The utility that is being regulated may be owned by the consumers that it serves, a mutual utility like a public utility district, or it may be a stockholder-owned utility either publicly traded on a stock exchange or closely held among just a few investors.

RENEWABLE ENERGY RESOURCES

Energy resources naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.

THERM

A unit of heating value used with natural gas that is equivalent to 100,000 British thermal units (BTU); also approximately equivalent to 100 cubic feet of natural gas.

TRANSMISSION

Electricity – The bulk transportation of electricity from large generation centers, over significant distances, to interchanges with large industries and distribution networks of utilities.

Natural gas – The transmission line is a wide-diameter, often-times long-distance, portion of a natural gas pipeline system, located between the gathering system (production area), natural gas processing plant, and other receipt points and the principal customer service area(s).

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the

ENERGY EXPERIENCE



OCTOBER 9, 2018 @ THE REACH
1943 COLUMBIA PARK TRAIL | RICHLAND

Make it

LEARN HOW POWER IS GENERATED

Save it

LEARN HOW TO CONSERVE ENERGY

Repeat

LEARN ABOUT THE BENEFITS AND CHALLENGES OF RENEWABLE ENERGY

thanks for attending!

NUCLEAR

GAS

SOLAR

WIND

HYDRO



GLOSSARY OF TERMS

BASE LOAD ENERGY

Base load energy is a power resource providing consistent energy during a given period of time (24/7). The base load usually does not include energy loads that result from weather temperature fluctuations.

BTU

British thermal unit(s): The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit).

CARBON DIOXIDE CO₂

A carbon atom and two oxygen atoms; a byproduct of burning fossil fuels; a greenhouse gas (GHG).

DEMAND-SIDE MANAGEMENT (DSM)

The activity pursued by an energy utility to influence its customers to reduce their energy consumption or change their patterns of energy use away from peak consumption periods.

DISTRIBUTION

Electricity – The transport of electricity to ultimate use points, such as homes and businesses, from a source of generation or from one or more substations.

Natural gas – The transport of natural gas, usually through large underground pipelines, to the communities where it will be used. Natural Gas flows into smaller pipelines, called mains, to very small lines, called services, to homes and buildings where the natural gas will be used.

ELECTRIC COOPERATIVE (CO-OP)

An electric utility owned and governed by members who use and purchase its services. Democratically controlled and operated on an at-cost, not-for-profit basis, a cooperative returns any excess revenue, called margins, to its members.

ENERGY AUDIT

An assessment of energy use in which an auditor inspects a home or commercial building and suggests ways energy can be saved.

ENERGY CONSERVATION

Energy conservation refers to reducing energy through using less of an energy service. Energy conservation differs from efficient energy use, which refers to using less energy for a constant service. For example, driving less is an example of energy conservation. Driving the same amount with a higher mileage vehicle is an example of energy efficiency.

ENERGY EFFICIENCY

Term that describes products and actions that use less energy due to advanced technology and equipment.

ENERGY SOURCE

Any substance or natural phenomenon that can be consumed or transformed to supply heat or power. Examples include petroleum, coal, natural gas, nuclear, biomass, electricity, wind, sunlight, geothermal, water movement, and hydrogen in fuel cells.

GENERATION

Electricity – 1) The act or process of producing electricity from other forms of energy such as hydro, coal-fired steam turbines or photovoltaic conversion systems 2) The amount of electrical energy produced.

GREENHOUSE EFFECT

The result of water vapor, carbon dioxide, and other atmospheric gases trapping radiant (infrared) energy, thereby keeping the earth's surface warmer than it would otherwise be. Greenhouse gases within the lower levels of the atmosphere trap this radiation, which would otherwise escape into space, and subsequent re-radiation of some of this energy back to the Earth maintains higher surface temperatures than would occur if the gases were absent.

GREENHOUSE GAS (GHG)

Those gases, such as water vapor, carbon dioxide, nitrous oxide, methane, hydro fluorocarbons (HFCs), per fluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

INTERMITTANT ENERGY

A power resource dependent on the natural variability of the resource (e.g., wind and solar energy)

KILOWATT (KW)

A unit of electric power that is equal to 1,000 watts.

KILOWATT HOUR (KWH)

A measure of electricity defined as a unit of work or energy, measured as one kilowatt or power expended for one hour. One kWh is equivalent to 3,412 BTUs.

LOAD PROFILE

The load profile is the pattern of a customer's usage, hour to hour, day to day, or month to month.

ON-PEAK

Periods of relatively high system demand. These periods often occur in daily, weekly, and seasonal patterns; these on-peak periods differ for each individual utility.

PEAKING CAPACITY

Capacity of generating equipment normally reserved for operation during the hours of highest daily, weekly, or seasonal loads. Some generating equipment may be operated at certain times as peaking capacity and at other times to serve loads on an around-the-clock basis.

PUBLIC UTILITY

An organization that maintains the infrastructure for a public service (often also providing a service using that infrastructure) such as electricity, natural gas, water supply, telecommunications, waste management, fire service, public transportation and more. Public utilities are subject to forms of public control and regulation ranging from local community-based groups to statewide government monopolies.

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