

Glossary for the Electric Energy Forum

All-H:

The “H’s” refer to Harvest, Habitat, Hatcheries, Hydro, and some would add High Seas.

Anadromous:

Term used to describe fish, for example salmon or steelhead, that hatch in fresh water, migrate to the ocean, mature there, and return to fresh water to spawn.

Ancillary services market:

This market ensures grid reliability by closing purchase transactions for replacement reserves, spinning reserves, non-spinning reserves, and regulatory must-take reserves a day or an hour ahead of when customers actually use the electricity.

Base load:

The minimum load carried by a system over a given period of time. Base load resources run continually except during maintenance or outages.

Bilateral contract:

A two-party agreement for the purchase and the sale of energy products and services; a direct contract between the power producer and user or broker outside of a centralized power pool.

BPA (Bonneville Power Administration):

One of five federal power marketing administrations that sell low-cost electric power produced by federal hydroelectric dams to agricultural and municipal users. BPA serves Idaho, Oregon, and Washington, as well as parts of Nevada and Wyoming, and also sells power to California companies in “wheeling” trades.

Bundled service:

Combined service to consumers that includes generation, transmission, distribution, and related costs provided by a single utility in a single billing.

Capacity:

The amount of electricity (in megawatts or kilowatts) that a generating unit, power plant, or utility can produce at an instant in time under specified conditions. Capability is the maximum amount of generation possible; capacity is the amount expected under safe operating conditions.

Co-generation:

The production of electricity as a by-product of another process. For example, industries creating steam or heat as a by-product in production can use that heat to generate electricity.

Congestion:

A condition that occurs when insufficient transfer capacity is available to implement all of the preferred schedules simultaneously. In California, congestion is managed by the ISO.

Conservation:

According to the Northwest Power Act, any reduction in electric power consumption as a result of increases in the efficiency of energy use, production, or distribution.

Cost shifting:

Establishing a transmission charge within an RTO that is the average charge of all utilities within the RTO. Under a cost-shifting approach, the transmission costs of all participating utilities shift toward the average.

Cost-based rates:

Rates based on the utilities’ costs, plus what a public utility commission determines to be a “just and equitable” rate of return.

Curtailement:

Process where utilities shut off power to certain customers, usually as part of a voluntary program, where customers receive a credit for allowing their power to be shut off during periods of high energy demand.

Customer class:

A distinction among users of electric energy usually defined by usage patterns, usage levels, and conditions of service, and categorized generically by customer activity (e.g. residential, commercial, industrial, agricultural).

Demand:

The rate at which energy is delivered to or by a system, part of a system, or a piece of equipment.

Distributed generation:

A distributed generation system involves small amounts of generation located on a utility’s distribution system for the purpose of meeting local (substation level) peak loads and/or displacing the need to build or upgrade additional local distribution lines.

Drawdown:

The release of water from a reservoir for power generation, flood control, salmon, irrigation, or other water management activity.

Emissions credits (also Allowances):

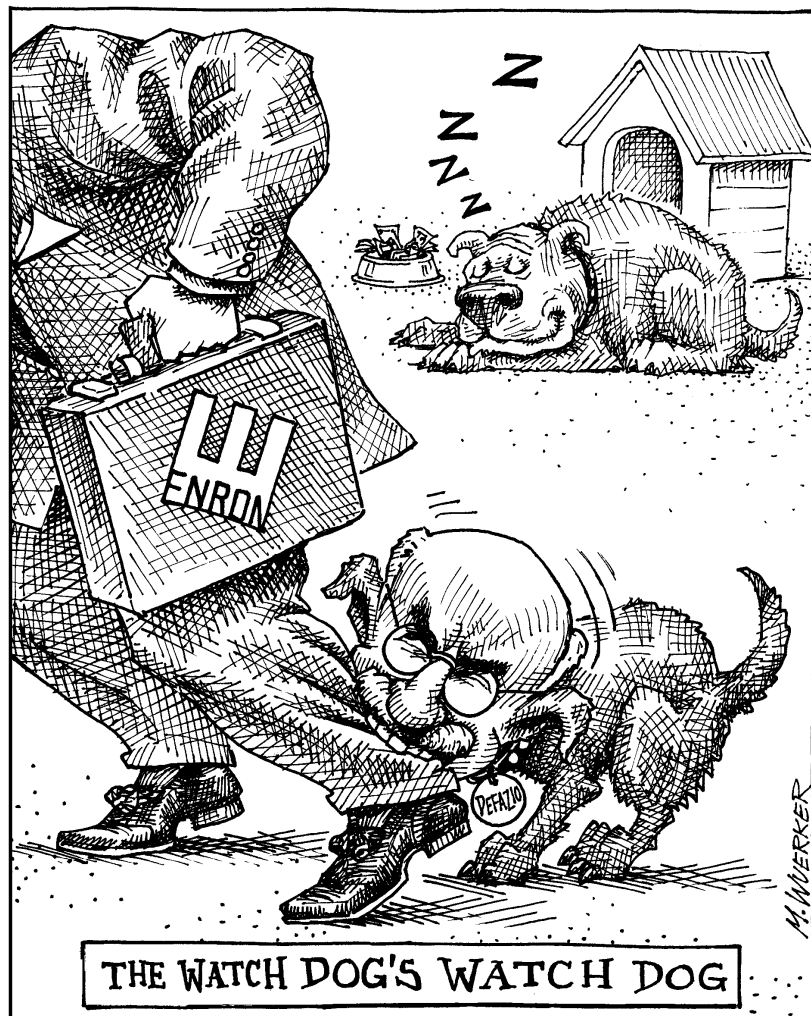
Units of air emissions (such as tons of sulfur dioxide) emitted by power plants and other industrial operations that are bought and sold in an emissions trading market to allow utilities and companies a flexible, cost-effective way to meet local air quality standards.

FERC (Federal Energy Regulatory Commission):

The federal regulatory body that has jurisdiction over interstate electricity sales, transmission rates and access, wholesale electric rates, and hydroelectric licensing of non-federal hydroelectric projects.

Freshet:

A rapid, temporary increase in stream flow due to heavy rains or snowmelt.



Fuel cell:

Fuel cells generate power by converting the chemical energy of a fuel, such as hydrogen, and an oxidant, such as oxygen, directly into electricity. They have no moving parts, and operate as long as the fuel and an oxidizer are supplied continuously from outside the cell.

Geothermal energy:

Natural heat from within the earth, captured for production of electric power, space heating, or industrial steam.

Green tags (also Tradable Renewable Energy Certificates or Renewable Energy Credits):

Similar to emissions credits, green tags are used in the energy trade to offset emissions by representing the environmental and social benefits of renewable generation, or to represent the amount of renewable-generation energy a utility provides to its end-use customers.

Grid:

A system of interconnected power lines and generators managed so that the generators are dispatched as needed to meet the requirements of the customers connected to the grid at various points; also refers to the electric utilities' transmission and distribution system.

Intertie:

A transmission line that links two or more regional electric power systems.

Investor-owned utility (IOU):

The designation is used to differentiate a utility owned and operated for the benefit of shareholders from municipally owned and operated utilities and rural electric cooperatives.

Independent System Operator (ISO):

A neutral operator responsible for moment-to-moment maintenance and oversight of the electric grid system, ensuring that loads match resources available to the system.

Jack counts:

Counts of the immature male salmon that return one year prior to the fully mature component of their brood year class. Jacks are capable of spawning, and are viewed as a biological 'safety net' for populations where year classes may experience some form of reproductive distress.

Load:

The amount of power required to meet one or more consumer's needs; also, an end-use device or an end-use customer that consumes power. Load should not be confused with demand, which is the measure of power that a load receives or requires.

Market-based rates (also Market-based price):

Rates set by the mutual decisions of many buyers and sellers in a competitive market in absence of government price caps or controls.

Megawatt (MW):

One million watts or 1,341 horsepower; one megawatt of energy is enough to power 1,000 average homes.

Megawatt-hour (MWh):

One thousand kilowatt-hours or one thousand megawatts for one hour.

Net metering:

The practice of some utilities to allow customers to install local generation sources such as solar panels to offset their electricity consumption, and in many cases, to return excess electricity to the grid at a contract price, resulting in a billing for the net amount of electricity consumed by a customer.

Non-utility generators (NUGs):

Independent power producers, wholesale generators and other companies in the power generation business that have been exempted from traditional utility regulation.

Northeast-Midwest Institute:

A non-partisan think tank that supports two congressional coalitions of members who come from those regions, one based in the House and the other in the Senate. Together, they are attempting to pass legislation to force BPA and the other power marketing authorities to charge much higher, market-based rates.

Northwest Power Planning and Conservation Act:

Please go to <http://www.nwcouncil.org/library/poweract.htm>

Peak load (also Peak demand):

The highest electrical demand within a particular period of time. Daily weekday electric peaks occur in late afternoon and early evening; annual peaks occur on hot summer days.

Public utility:

Utility operated by a non-profit governmental or quasi-governmental entity, which includes municipal utilities, cooperatives, and power marketing authorities.

Real-time pricing:

An innovative electricity pricing system in which some utilities offer their residential customers real-time metering, allowing customers to react to current electricity market prices that change daily or even hourly through behavioral changes to use less electricity during times of highest demand when electricity is most expensive.

Renewable energy (also Renewable resources):

Renewable energy resources are naturally replenishable, but flow-limited, and can include resources such as hydro, wind, solar, geothermal, wood, biomass (solid waste), tidal power, sea currents, and ocean thermal gradients.

Reserve generating capacity:

The amount of power that can be produced at a given point in time by generating units that are kept available for use in special-need cases when unusually high power demand occurs, or when other generating units are off-line for maintenance, repair, or refueling.

Restructuring:

The reconfiguration of a vertically integrated electric utility that changes the structure of the electric power industry from one of guaranteed monopoly over service territories to one of open competition between individually owned and operated power suppliers.

Retail competition:

A system under which more than one electric power provider can offer to sell power to retail customers at unregulated market prices, and retail customers are allowed to choose from more than one provider to purchase their electricity.

Retail market:

A market in which electricity and other energy services are sold directly to either residential or commercial end-use customers.

Smolt:

Refers to the developmental life stage of salmon when the juvenile is at least one year old and has adapted to the marine environment.

Spill:

Releasing water through the spillway rather than through the turbine units on a hydroelectric dam.

Spot market:

A market in which a commodity can be purchased on very short notice. In the electricity spot market, energy is usually sold on a half-hour or hourly basis.

Stranded costs:

Utility investments in facilities built to serve customers under traditional regulation that have become unrecoverable or "stranded" as those assets are deregulated and their cost of generation exceeds the actual price of power they supply in a competitive market, including prior investments allowed by regulators that are currently being recovered through regulated rates.

Supplier:

A person or corporation, generator, broker, marketer, aggregator, or any other entity that sells electricity to customers using the transmission or distribution facilities of an electric distribution company.

Tariff:

A document approved by a responsible regulatory agency that lists the terms and conditions under which utility services will be provided, including a schedule or prices.

Technical Management Team (TMT):

Established by the National Marine Fisheries Service (NMFS), a technical working group consisting of representatives from NMFS, U.S. Fish and Wildlife Service (USFW), Bureau of Reclamation, Corps of Engineers, Bonneville Power Administration (BPA), and state and tribal sovereigns that provide advice on operations issues of Columbia River Basin federal dams in a manner that minimizes fish and wildlife impacts.

Time-of-use (TOU) meter:

Used for customers who pay time-of-use rates, this measuring device records the times during which a customer uses various amounts of electricity.

Unbundling:

Disaggregating electric utility service into basic components, such as generation, transmission, and distribution, and offering each component separately as discrete services, perhaps through newly created service providers.

Utility:

In the electricity industry, a regulated, vertically integrated entity (company or state agency) that exhibits the characteristics of a natural monopoly and sells electric energy to end-use customers. "Transmission" and "distribution" utilities refer to the regulated owner/operators of the transmission or distribution systems, respectively.

Vertical integration:

An arrangement whereby the same company owns all the different aspects of making, selling, and delivering a product or service. In the electric industry, it refers to the historically common arrangement whereby a utility would own its own generating plants, transmission system, and distribution lines to provide all aspects of electric service.

Wholesale power market:

The purchase and sale of electricity from generators to resellers (who sell to retail customers) along with the ancillary services needed to maintain reliability and power quality at the transmission level.

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