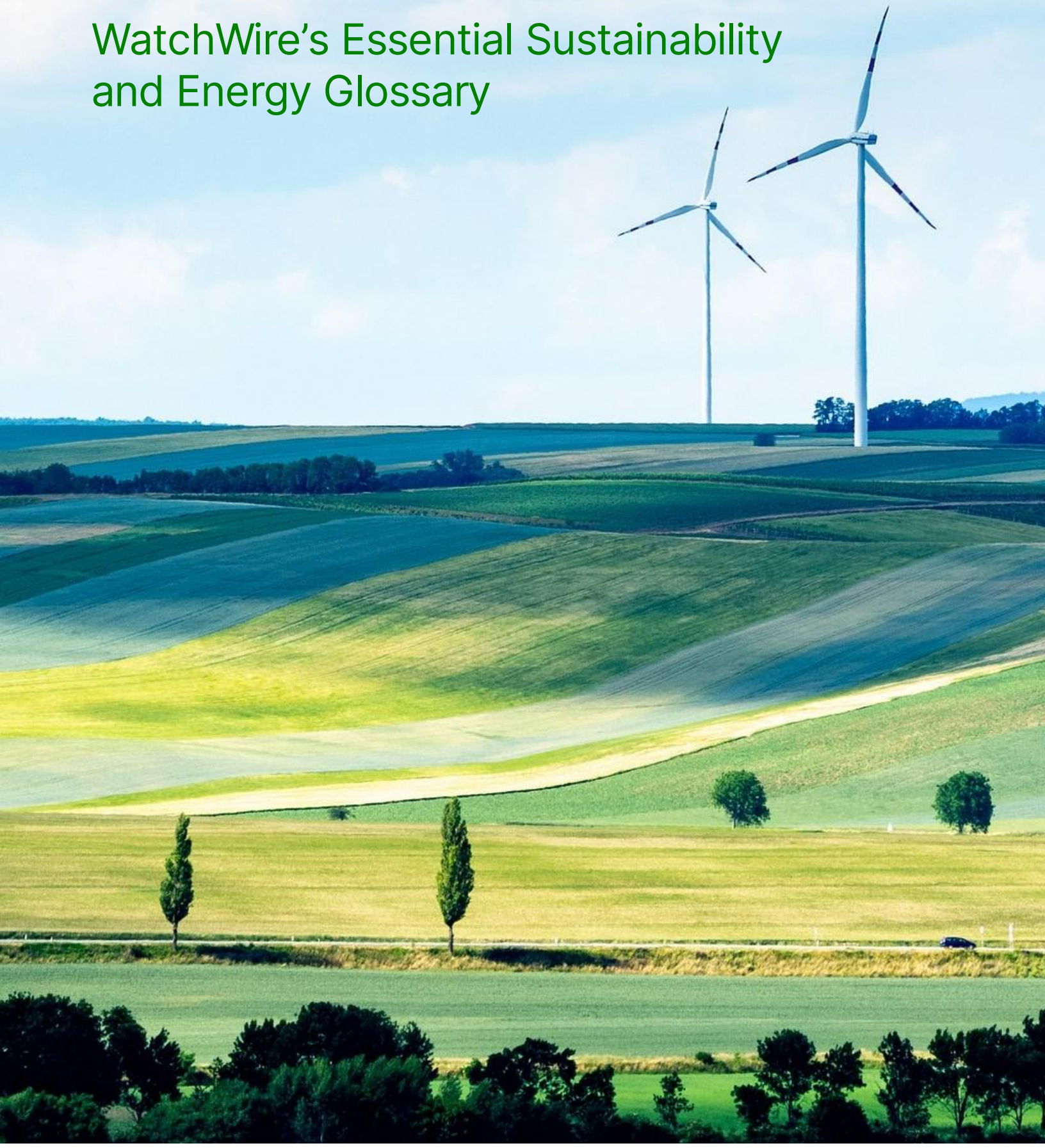
WatchWire's Essential Sustainability and Energy Glossary



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INTRODUCTION

Recently, we conducted a poll that yielded a revealing insight: Approximately 33% of poll participants said their organization is just starting to establish a sustainability program.

At WatchWire, we know that the world of sustainability and energy management can feel daunting, especially for organizations that are just getting into the space. We also know that sustainability journeys don't happen in a vacuum. They involve getting familiar with concepts like peak load, Scope 1, 2, and 3 emissions, demand response programs, heating and cooling degree days, and much more.

We've put together this Sustainability and Energy Glossary to help familiarize you with all the relevant terms you need to know before you begin your sustainability and energy management journey. As an added resource, we've included links under some definitions to our related e-Books, webinars, and articles.

We hope you find this glossary informative and useful. If you have any questions or comments or need clarification on a definition, you can reach us any time on LinkedIn or Twitter.

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A

1.5°C pathway

A plan of action (defined by the International Panel on Climate Change, the IPCC) that is predicted to minimize the warming of the global climate to only 1.5°C above preindustrial levels by 2100, or to reach or return to 1.5°C warming in the case of an overshoot. This pathway provides only a one-in-two, to three-in-two chance to mitigate climate change. To achieve this goal, it is vital for nations and individual companies to reach net zero carbon emissions.

Afforestation

Planting of trees and encouraging forest development on land which previously did not contain forests. Afforestation is often discussed as a partial solution to drawing down CO2 from the atmosphere (i.e. the new forests would serve as a carbon sink) in order to mitigate the effects of climate change. Your organization can sponsor the planting of trees as part of its carbon offset program and quest for net zero emissions.

Ancillary services

Functions that allow for the proper constant flow of electricity on the grid. Often on grids with significant renewable energy, additional ancillary services may be necessary in order to level out the variability in energy production that often comes with renewables. Ancillary services may include Such services may include load regulation, spinning reserve, non-spinning reserve, replacement reserve, and voltage support.

Anthropogenic

Caused by human activity. Most often used in the context of climate change and environmental degradation.

Anthropogenic emissions

The production and/or release of greenhouse gases (GHGs), precursors of GHGs and aerosols by result of human activities. Anthropogenic emissions are caused by the

burning of fossil fuels, deforestation, land use and land-use changes (LULUC), livestock production, fertilization, waste management and industrial processes.

Arbitrage

In the context of energy, energy arbitrage is to purchase electricity during off-peak times, and selling or releasing it during peak times in order to save or profit off of the price discrepancy.

B

Backup generator

Also referred to as a standby generator, is a reserve electrical system that can be used in case of emergency. Backup generators often compensate for a shortage of power necessary to meet energy demand. Backup generators widely run on fossil fuels. These are different from generators found in a residential or commercial setting; primary generators in these sectors are often used in the case of a power outage.

Balancing authority

An entity that ensures power supply and demand are balanced in order to prevent large blackouts on the grid. Balancing authorities in the US follow mandatory reliability standards that are set by the US Federal Energy Regulatory Commission.

Base load

This is the bare minimum amount of electrical power required on the grid at a given time (i.e., the minimum level of consumer demand). More often discussed are the issues of meeting peak load. *Also see Peak load*.

Base load capacity

This includes all the equipment that typically runs in order to serve electrical demand on any given basis.

Biofuel

Mainly used within the transportation sector, biofuels are usually a liquid fuel derived from biomass. This biomass is often corn, sugarcane, canola, soybeans, etc. While biofuels are considered renewable fuel sources, their sustainability is often debated. For example, corn and soybeans are water intensive, and can also be used to feed the many millions of undernourished people on this planet, but instead they are being used as fuel.

Biomass

Organic material that may originate from either plants or animals. Biomass is considered to be a renewable energy source. Common forms of biomass include crops grown for energy, wood, animal dung, waste from forests or farms, etc. Biomass is often used interchangeably for the term biofuel.

Bulk power transactions

The wholesale purchase, sale, or exchange of electricity among electric utilities. These wholesale power transactions can help utilities with everything from maintaining load to reducing the price of electricity and services.

Bundled utility service (electric)

Service from a utility in which energy production, distribution, and ancillary services, are provided by the same utility.

C

Capacity charge

Part of a two-fold pricing method used in capacity transactions (the other is an energy charge). The capacity charge, also known as the Demand Charge, is based on the amount of capacity one purchases.

Capacity factor

The ratio of actual electrical energy output that was produced over a certain time period compared to the highest possible electrical energy output that could have been produced during that same period.

Carbon budget

The total amount of carbon dioxide (CO2) emissions that can be released over a period of time while still remaining below a certain global temperature average. Also refers to the balance of incomes and losses between carbon sinks in the carbon cycle. *Also see Sequestration.*

Carbon dioxide equivalent

A metric measurement used to compare the emissions from greenhouse gases other than CO2 on the basis of their global-warming potential (GWP). Amounts of other gases are converted to the equivalent amount of carbon dioxide with the same global warming potential.

Carbon dioxide capture and storage (CCS)

A process in which carbon dioxide (CO2) from industrial and energy-related sources is separated (captured), conditioned, compressed and transported to a long-term storage location to be isolated from the atmosphere.

Carbon intensity

The amount of carbon dioxide (CO2) emissions that is released per unit of another variable like gross domestic product (GDP) or transport. This tells us how carbon intensive the variable is.

Carbon neutrality

See Net zero CO2 emissions.

Carbon price

The price for prevented or released carbon dioxide (CO2) or CO2-equivalent emissions. It may refer to the rate of a carbon tax or the price of emission permits. Often, carbon prices are used as a representative of the level of effort in mitigation policies.

Carbon sequestration

The process wherein carbon is stored in a carbon pool. *Also see Carbon dioxide capture and storage (CCS), and Uptake.*

Carbon sink

See Sequestration.

CHP

Combined heat and power, also known as cogeneration, is the concurrent production of electricity or mechanical power and thermal energy (heating and/or cooling) from one energy source.

Clean Development Mechanism (CDM)

This United Nations program allows industrialized countries to finance greenhouse gas emissions-reducing projects in developing countries and receive credit for those reductions as part of their own emissions reduction efforts.

Climate change

Climate change refers to a change in the state of the climate that can be identified and that persists for an extended period, usually decades or longer. Climate change may be due to natural internal processes or external forcings such as solar cycles or volcanic eruptions, or it may be due to human actions such as burning coal, driving cars, and other industrial practices.

Climate change commitment

The unavoidable future climate change resulting from inertia in geophysical and socio-economic systems. There are several different types of climate change commitment, as discussed below. Climate change commitment is often expressed in terms of the further change in temperature, but it can also include other future changes such as extreme weather events, extreme climate events, and changes in sea level.

Constant emissions commitment

The *climate change* that would happen if *anthropogenic emissions* were kept constant.

Zero emissions commitment

The climate change that would result from making anthropogenic emissions zero.

Feasible scenario commitment

The climate change that corresponds to the lowest emission scenario that is possible.

Infrastructure commitment

The climate change that would happen if existing greenhouse gas and aerosol emitting infrastructure was used until the end of its lifetime.

Climate extreme (extreme weather or climate event)

The occurrence of a weather or climate value that is well above (or below) another value near the upper (or lower) ends of the range of observed values. Both extreme weather events and extreme climate events are often referred to collectively as "climate extremes".

Climate feedback loops

An interaction in which a disturbance in one climate quantity causes a change in a second quantity, which ultimately leads to another change in the first. Negative feedback means the initial disturbance is weakened by the changes it causes; positive feedback means the initial disturbance is enhanced. The initial disturbance can be caused by either an external or internal force.

Climate justice

See Justice.

Climate neutrality

The concept of a state in which human activities have no overall effect on the climate. Reaching this state would require balancing emissions released with

emissions removed while also accounting for regional or local bio geophysical effects of human activities that may affect local climate. *Also see Net Zero CO2 emissions*.

Climate projection

The simulated response of the climate to a scenario involving future emissions or concentrations of greenhouse gases (GHGs) and aerosols. A climate projection is usually determined using climate models and differs from a climate prediction in its dependence on the emission/concentration/radiative forcing scenario used.

Climate-resilient development pathways (CRDPs)

Trajectories that strengthen sustainable development and efforts to eradicate poverty and reduce inequalities while promoting adaptation and resilience in a changing climate. They deal with the ethics, equity and feasibility aspects of the deep societal transformation needed to combat climate change.

Climate-resilient pathways

Processes for managing change within complex systems in order to mitigate disruptions and encourage opportunities associated with climate change.

Climate sensitivity

The change in the annual global mean surface temperature in response to a change in atmospheric carbon dioxide concentration or other factors.

Climate-smart agriculture (CSA)

An approach that helps to guide actions needed to transform our agricultural systems to support development and ensure food security in a changing climate. Climate-smart agriculture focuses on three main objectives: Sustainably increasing agricultural productivity, adapting to, and building resilience to climate change, and reducing and/or removing greenhouse gas emissions wherever possible.

Climate target

Refers to a temperature limit, concentration level, or emissions reduction goal used that is needed in order to avoid major interference with the climate. For example,

climate targets may aim to reduce greenhouse gas emissions by a certain amount over a certain amount of time.

Cofiring

When natural gas is burned in conjunction with another fuel in order to reduce air pollutants.

Cogeneration

The production of electrical energy and another form of useful energy (such as heat or steam) at the same time.

Cogeneration system

A system that uses a common energy source to produce both electricity and steam. This results in increased fuel efficiency.

Combined heat and power (CHP) plant

A plant that is designed to produce both heat and electricity from a single heat source. Note: This term is now being used instead of the term "co-generator" that was used by EIA in the past.

Combined pumped-storage plant

A hydroelectric power plant that uses both pumped water and the natural flow of water to produce electricity.

Commercial building

A building with more than 50% of its floor space used for commercial activities. This includes stores, offices, schools, churches, gyms, libraries, museums, hospitals, warehouses, and jails. Government buildings are also commercial buildings unless they are on military bases or reservations.

Commercial facility

A unit owned or operated by one person or organization that occupies two or more commercial buildings in a single place. Two examples of a commercial, multi-building facility are a university and a large hospital complex.

Conference of the Parties (COP)

The group of nations that have ratified the Framework Convention on Climate Change (FCCC). Their primary role is to keep implementation of the FCCC under review and make the decisions necessary for its efficient and effective implementation. *Also see Framework Convention on Climate Change (FCCC)*.

Conservation

A reduction in energy consumption that is aligned with a reduction in service demand. Service demand may include buildings-sector end uses like lighting, refrigeration, heating, industrial processes, or vehicle transportation. Unlike energy efficiency, which is usually technological, conservation is associated with behavior, e.g., lowering the thermostat to reduce heat use, using occupancy sensors that turn off lights and/or appliances, and car-pooling.

Conservation program

A program in which a utility company installs home weatherization services free or at reduced cost or provides free or low-cost devices for saving energy, like energy efficient light bulbs and water heater insulation.

Contract price

The energy delivery price that is determined when a contract is signed. It can be a fixed price or a base price escalated according to a given formula.

Cooling Degree Days (CDD)

A measure of how hot a certain place is over a period of time relative to a base temperature, which is usually 65 degrees Fahrenheit. The measure is calculated for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures. Cooling degree days are used as an indicator of air conditioning energy requirements or use.

Related content: Heating and Cooling Degree Days – What Are They and Why Do They Matter?

Cooperative electric utility

An electric utility legally that is established to be owned by and operated for the benefit of those using its service, i.e., the customers. The utility company will generate, transmit, and/or distribute electricity to a certain area that is not being served by another utility, e.g., in rural areas.

Co-benefits

The positive impacts that a policy or measure aimed at solving one problem might have on other issues. Also referred to as ancillary benefits.

Criteria pollutant

A pollutant that has been determined to be dangerous to human health and is regulated under the Environmental Protection Agency's (EPA's) National Ambient Air Quality Standards.

Cumulative emissions

The total amount of emissions released over a certain period of time.

D

Day-ahead and hour-ahead markets

Forward markets, like day-ahead and hour-ahead, are where electricity quantities and market clearing prices are calculated individually for each hour of the day pertaining to the basis of participant bids for energy sales and purchases. This lets market participants commit to buy or sell wholesale electricity before the operating day, helping to avoid price volatility.

Day-ahead schedule

A day-ahead schedule is prepared by the scheduling coordinator or an independent system operator before the beginning of a trading day. This schedule indicates the

levels of generation and demand cleared through the day-ahead market that was issued one day prior to the operating day.

Decarbonization

Decarbonization is the process by which organizations (or countries and individuals) aim to reduce carbon emissions. Typically, this refers to a reduction of the carbon emissions associated with electricity, industry and transport.

Decoupling

Decoupling (when in relation to climate change) is where economic growth is no longer strongly associated with the consumption of fossil fuels. Relative decoupling is where there is both economic growth and fossil fuel growth, but at different rates. Absolute decoupling is where economic growth continues, while fossil fuels decline.

Demand

See Electricity demand.

Demand bid

A demand bid into the power exchange enables consumers to actively participate in electricity trading. Bids indicate a quantity of energy or ancillary service that a consumer is willing to purchase and, typically, the maximum price that they are willing to pay.

Demand charge

That portion of the consumer's bill for electricity, based on their maximum electric capacity usage and calculated based on the billing demand charges under their applicable rate schedule. Often referred to as ICAP tags or capacity charges, depending on the market.

Demand charge credit

A demand charge credit is the compensation received by the buyer when the delivery terms of a contract cannot be met by the seller.

Demand indicator

A demand indicator represents the amount of energy-consuming units for which energy inputs are required.

Demand interval

A demand interval is the time period in which the flow & consumption of electricity is measured (typically in 15-, 30-, or 60-minute increments). Also, this represents the data intervals that meters can capture.

Demand response programs

Demand response programs are incentive-based programs, run by the utility, that encourage electric customers to temporarily reduce their demand for power at given times in exchange for a lower electricity bill. In some demand response programs, electric system operators directly reduce customers' load, but in others, customers retain control over their demand. For these customer-controlled reductions, customers often participate in actions such as curtailing load, operating onsite generation, altering operational patterns, or shifting electricity use to another time period. Demand response programs are just one type of demand-side management, which also covers more broad programs such as the promotion of energy-efficient equipment in residential and commercial sectors.

Related content: The Smart Grid and Demand Response Programs

Demand-side management (DSM)

Demand-side management is an action by the utility that reduces or curtails energy-intensive equipment or processes. DSM is often used to reduce customer load during peak demand times and/or in times where there is supply constraint. DSM includes programs that are focused and immediate such as the brief curtailment of energy-intensive processes used by a utility's most demanding industrial customers, and programs that are broad and less immediate, such as the promotion of energy-efficient equipment in residential and commercial sectors (similar to above).

Demand-side management costs

These are the costs incurred by the utility to achieve the capacity and energy savings from their Demand-Side Management programs. This does not include costs

incurred by customers or third parties in their curtailment efforts. Regardless of when savings occur, these costs are to be reported in the year in which they are incurred. The costs include any annual expenses from the utility's labor, administrative, equipment, incentives, marketing, monitoring and evaluation, and more. Lump sum capital costs or program costs tied with strategic load growth activities are not to be included in this amount.

Demand- and supply-side measures

Demand-side measures

These are policies and programs for influencing the demand for goods and/or services. In the energy sector, demand-side management aims at reducing the demand for electricity and other forms of energy.

Supply-side measures

These are policies and programs for influencing how a certain demand for goods and/or services is met. In the energy sector, for example, supply-side mitigation measures aim at reducing the amount of carbon emissions emitted per unit of energy produced.

Deregulation

The elimination of some or all regulations from a previously regulated industry. For energy, a deregulated market allows for the entrance of competitors to buy and sell electricity by permitting market participants to invest in power plants and transmission lines.

Direct access

Direct access gives the customer the ability to purchase electricity or other energy sources directly from a supplier, rather than their traditional supplier.

Direct control load management

This is if the system operator deliberately interrupts the power supply to individual appliances or equipment on customer premises, in an effort to reduce the demand of customers.

Direct electricity load control

In this instance, the utility will install a radio-controlled device on the equipment (typically HVAC). Then during periods of heavy usage, the utility can send a signal to the device to turn off the HVAC for a given period.

Direct load control

This type of Demand-Side Management represents the consumer load that can be interrupted at the time of annual peak load by direct control of the utility. Direct Load Control does not include Interruptible Load. Direct load control typically deals with residential customers.

Direct use

Direct use refers to electricity that is self-generated, meaning it is produced by the same entity that consumes it.

Direct utility cost

A utility cost that is identified with one of the DSM program categories (e.g. Energy Efficiency or Load Management).

District heat

District heat is steam or hot water from an external source that is used as an energy source in a building. The steam or hot water is produced in a central plant, then piped into the building for heating. It can be purchased from a utility or produced in a physical plant on the facility site.

Diversity

Diversity in the electricity system refers to the many individual loads that contribute to overall demand on the system. The loads within different customer rate classes typically follow usage patterns, but the different classes of service place a range of different demands upon the grid. The diversity in service requirements of one class to another can differ by time-of-day usage, facility usage, and/or demands to the grid.

Diversity exchange

An exchange of capacity or energy, or both, between systems whose peak loads occur at different times.

DOE

The U.S. Department of Energy. DOE manages the United States' nuclear infrastructure and administers the country's energy policy. It also funds scientific research.

Double dividend

The extent to which revenue is generated by policy instruments, such as carbon taxes or tradable emission permits can either 1) contribute to mitigation and 2) offset part of the potential welfare losses of climate policy through recycling the revenue back into the economy by reducing other taxes.

E

El Niño-Southern Oscillation (ENSO)

The El Niño Southern Oscillation is an atmospheric–oceanic phenomenon that can be broken down into two parts, EL Niño and La Niña. El Niño is a climate pattern that is characterized by warming of the ocean's surface in the eastern tropical Pacific; it only occurs periodically every two to seven years and is considered the “warm phase” of ENSO. During an ENSO period, trade winds (winds that constantly blow east to west below and above the equator) weaken, changing ocean currents resulting in warming of the sea surface temperature. El Niño eventually fluctuates to La Niña, which is considered the “cool phase.” During La Niña, water temperatures cool as trade winds speed back up. However, it tends to occur less often than El Niño. ENSO patterns are important to understand because they can have global impacts on everything from weather to economies. Furthermore, there is preliminary evidence that climate change is increasing the frequency of extreme ENSO events, with worsening impacts on a multitude of factors like floods and droughts, for example.

Electric industry reregulation

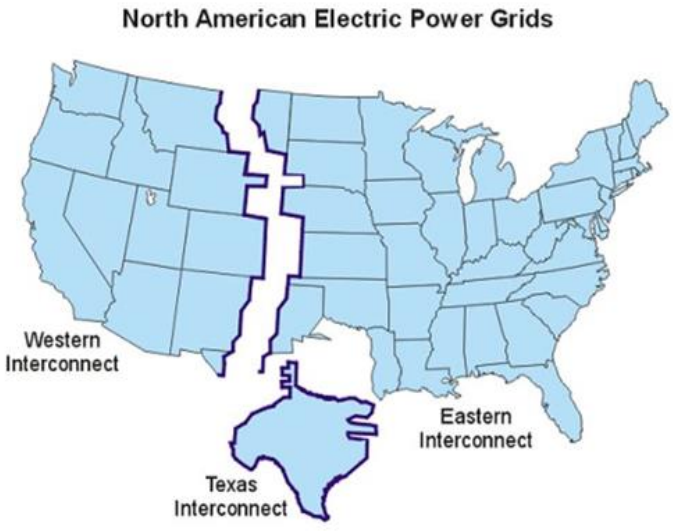
Electric industry reregulation exists to apply regulatory laws to utilities that seem to operate under a natural monopoly, even after a restructuring of the power industry that intended to break down monopolistic utilities.

Electric industry restructuring

The goal of restructuring is to permit competition within the electricity market, ultimately resulting in customers being able to choose their own supplier of electricity. Electric industry restructuring therefore consists of deconstructing monopolies and vertically integrated systems across the electric industry. This allows for competition in the market, and consumer choice, but the electricity will still travel through the distribution lines of the local utility.

Electric power grid (The Grid)

The electric power grid, also known colloquially as “the grid” is an interconnected system across the united states that allows for electricity delivery from the electricity producers to the consumers. The grid utilizes transmission and distribution lines to transport electricity from point A to point B. In the US, there are three large grid systems that connect to one another, including the Eastern Interconnect, the Western Interconnect, and the Texas Interconnect. In non-continental states, such as Alaska, there are multiple systems that cover the state. The electric grid, while large and sprawling now, was developed bit by bit over the years, and the infrastructure is now largely out of date; it is increasingly vulnerable to the effects of climate change, including large storms and overcapacity.



Electric rate

The electric rate is the price determined for an amount and type of electricity, as specified by an electric rate schedule or contract.

Electric rate schedule

An electric rate schedule is a contract that specifies the electric rate (the price determined for an amount and type of electricity) and the accompanying terms of this price. The electric rate schedule would include terms and conditions set by a regulatory authority.

Electrical system energy losses:

Energy that is lost through the generation, transmission, and transportation/distribution of electricity.

Electric utility

An electric utility can consist of anything from a corporation to a single person that cooperates with distribution facilities to deliver electricity to customers. Electric utilities may include investor-owned electric utilities, state utilities, municipal utilities, Federal utilities, rural electric cooperatives, and so on.

Electricity broker

An electricity broker helps organize the sale of electricity and its transmission from the producer to consumer. However, brokers do not take any claim to the power that they help sell.

Electricity congestion

In layman's terms, electricity congestion occurs when the grid is overloaded with electricity. It means that there was not enough capacity available on the transmission lines in order to meet all of the current demands simultaneously. It is dangerous because this congestion can result in shortages, and potential breakage of the transmission lines.

Electricity demand

Electricity demand is measured by the rate at which electrical energy is delivered. It is measured by the generation and distribution facilities.

Related content: Understand Electricity Demand Charges

Electricity demand bid

In an energy market, there are electricity suppliers, and those who wish to secure this electricity to meet their consumers' electricity demand. An electricity demand bid is made by the demand side entities to the electricity suppliers. The bid indicates the amount of electricity or ancillary services that the buyer is willing to purchase and the price the buyer is willing to pay for these.

Electricity generation

This is the process of generating electric energy through the transformation of other forms of energy, such as from the energy stored in coal, UV rays, or the kinetic energy in water, to name a few examples. Electricity generated is often expressed in kilowatt-hours(kWh) or megawatt-hours (MWh).

Electric vehicle (EV)

A motor vehicle that is powered by electricity.

Battery electric vehicle (BEV)

A vehicle that is powered entirely by electricity, without the use of an internal combustion engine.

Plug-in hybrid electric vehicle (PHEV)

A vehicle that is powered mainly by electricity through the use of batteries, but additional power and distance driving can be derived through a hybrid internal combustion engine, often fueled by gasoline. The battery can be re-charged from an electric source.

Emissions

Emissions refer to the anthropogenic release of gasses (often greenhouse gasses such as carbon dioxide, methane, etc.) into the atmosphere.

Emissions trading

Emissions trading occurs under a market-based approach to greenhouse gas mitigation. A cap on greenhouse gas emissions is set, and the total is divided up into tradable emission permits. The permits can be allocated through auctioning and/or distributing free allowances to entities that fall under the administration of the trading scheme. Entities are required to give back emission permits that are equivalent to the amount emissions that they release, for example, equivalent to the amount of CO2 released by the entity. If the entity does not release as many emissions as their permits allow, the entity can sell their leftover/extra permits to others that cannot reduce their emissions in a less expensive way

End user

The entity, firm, or person that purchases products or electricity for their own consumption and does not resell or pass the product on. It may be thought of as the “final consumer.”

Energy efficiency

Energy efficiency is a term to describe the ratio of energy services provided considering or compared to the energy obtained for the service. Energy efficiency is often measured as a ratio of economic output to energy input, i.e., input energy over a physical or economic unit. Energy efficiency is often discussed in order to improve sustainability and to reduce energy demand, often through technological advancements like increased building insulation, implementing more energy efficient appliances or lighting, etc.

Energy Information Administration (EIA):

The Energy Information Administration, abbreviated as EIA, is an independent agency that exists within the U.S. Department of Energy. The EIA collects information and energy data and uses it to conduct analyses of energy issues. The EIA is independent and disseminates impartial energy information to allow for the

development of sound energy policy and to permit public understanding of energy and its intersection with economy and the environment.

Energy Management and Control System (EMCS)

An energy management and control system, abbreviated EMCS, is a computerized system that allows one to control and regulate a buildings energy use. It is often described as an energy conservation system that uses software and control equipment to manage heating, cooling, lighting, and more.

Energy-use sectors

These are sectors referred to by the EIA as residential, commercial, industrial, transportation, and electric power. They all consume energy in different ways, and so are labeled a differently to measure and analyze energy use.

Environmental restoration

Environmental restoration can include a variety of functions, mainly to clean up contaminated natural areas. A few examples include decontaminating contaminated soil or groundwater, cleaning up and decommissioning contaminating building sites such as nuclear reactors or chemical separations plants, and more.

Energy security

Energy security speaks to a setting in which a community, country, or the global population is able to maintain a predictable and sufficient energy supply. Discussions on energy security often pertain to national security, as the resiliency and efficiency of a nation's energy resources directly affects the nation's ability to meet national energy demand and maintain a sustainable cost for the energy. There are many facets to obtaining energy security, including harnessing a diverse array of energy resources. For example, a nation might not be secure if it ran entirely on solar energy, as solar energy is only useful when the sun is shining, i.e., during the day. A secure nation might use an array of energy resources, including many renewable resources, natural gas, and storing energy in battery facilities. The search for energy security encourages the development of new technologies, and the building and maintenance of secure and resilient infrastructure to generate, store and transmit energy, along with many other factors.

Energy Star

Energy Star is both a product and a platform (EnergyStar Portfolio Manager) that allows buildings to improve their energy efficiency through the use of its products and by managing the efficiency though use of Energy Star tools and resources. Energy Star Portfolio Manager can help entities track utility data pertaining to Energy (electricity, natural gas, etc.), water, and waste.

Related Content: ENERGY STAR Benchmarking

Environmental Protection Agency (EPA)

The Environmental Protection Agency, often abbreviated as the EPA, is an independent agency of the US government that focuses on the protection of the environment.

Equity

Equity is synonymous with fairness, and often justice. Equity in environmental terms is often discussed in relation to understanding how climate change impacts are distributed throughout society. Equity is also discussed in tandem with policy, generations, and gender, and often includes the investigation of who participates in decision-making, especially as it pertains to climate change mitigation and environmental policy.

Distributive equity

Distributive equity provides that the consequences, outcomes, costs and benefits of actions or policies be distributed equally across all peoples. In the discussion on climate change and climate policies, it is often discussed how different entities and peoples will share the burdens climate change, and the benefits of its mitigation.

Gender equity

Gender equity ensures that all genders are entitled to the same rights, as well as to the same opportunities. In the discussion of climate change and the environment, gender equity highlights that women are often more vulnerable to the outcomes of climate change, and may not have the same decision

making power when it comes to climate policy, and therefore may be further disadvantaged in the outcomes of climate policy.

Related content: Views from COP26 – Exploring Women, Gender, and Youths in Climate Change Solutions

Inter-generational equity

Inter-generational equity identifies that, while previous and current generations are most responsible for present GHG emissions and levels, it is unfortunately future generations that will be most vulnerable to the effects of climate change as a result. Furthermore, current policies that are implemented will most impose on people in the future.

Procedural equity

Procedural equity is equity in the process of decision-making. This seeks to include and represent peoples of different races, nationalities, socioeconomic status, etc., in policy and other decision making, allowing equal bargaining power and equitable access to knowledge and resources to participate.

Environmental, Social, and Corporate Governance (ESG)

Environmental, social, and corporate governance is an evaluation of an entity. ESG investigates and documents a business, organization, or raises awareness of social and environmental factors, and how well it seeks to minimize their impact on the environment and maximize its impact on social and human health and benevolence. ESG often outlines standards that are typically used by sustainable investors (those investors are interested in investing in what are essentially deemed sustainable, ethical companies), when investigating and vetting potential investments.

F

Feasibility

Feasibility refers to the degree in which climate goals are considered possible. It is dependent on geophysical, ecological, technological, economic, and social conditions.

Federal Electric Utility

A utility that is owned or financed by the federal government.

Federal Energy Regulatory Commission (FERC)

The FERC is a federal agency with jurisdiction over all types of electricity sales and certifications, specifically: interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. The FERC is an independent regulatory agency within the Department of Energy umbrella.

Federal Power Act

First enacted in 1920, and later amended in 1935, the Federal Power Act has three parts. The first part incorporated the Federal Water Power Act that was administered by the former Federal Power Commission. Their activities were confined to licensing non-Federal hydroelectric projects. Upon the passage of the Public Utility Act, parts II and III were added. These parts specifically extended jurisdiction to include regulation of the interstate transmission of electrical energy and rates for its sale in interstate commerce. The Federal Energy Regulatory Commission is now in charge of monitoring interstate transmission and electricity sales.

FERC guidelines

An entire compilation of the FERC's statutes, procedural and program regulations, orders, opinions, and historical decisions.

Fossil fuels

Fossil fuels are a source of energy formed in the Earth's crust from decayed organic material. The most common fossil fuels are petroleum, coal, and natural gas.

Framework Convention on Climate Change (FCCC)

An agreement started at the "Earth Summit" in Rio de Janeiro, Brazil, on June 4, 1992, with the goal of stabilizing greenhouse gas concentrations in the atmosphere at a level that would significantly prevent forced climate change. Also see *United Nations Framework Convention on Climate Change (UNFCCC).*

Fuel cell

A fuel cell can generate an electrical current by converting the chemical energy of a fuel directly into electrical energy. These differ from conventional electrical cells because the active materials, such as fuel, are not within the cell but are supplied from an outside source. Also, they do not contain an intermediate heat cycle, like most other electrical generation sources.

Fugitive emissions

These are unintended leaks of gas from the processing, transmission, and/or transportation of fossil fuels.

G

Geothermal Energy

Geothermal energy is heat within the earth. More specifically, it is the hot water or steam that is extracted from geothermal reservoirs from the earth's crust. This can be used for heat pumps, water heating, or even electricity generation.

Geothermal Power Plant

A geothermal power plant uses hydrothermal resources that have both water and heat to generate electricity. These power plants require extremely high-temperature (300 to 700 degrees Fahrenheit) hydrothermal resources that are derived either from dry steam wells or hot water wells often in rocks. Wells can be as deep as 2 miles into the earth's surface!

Global warming

This refers to the gradual increase in Earth's overall atmospheric temperature. Historically, global warming occurred due to natural influences, however, in today's society, the term is generally attributed to the effect of greenhouse gases caused by pollutants like carbon dioxide.

Global Warming Potential (GWP)

The GWP is an index developed to compare the global warming impacts of different gases. For example, GWPs are a measure of how much energy the emissions of 1 ton

of gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide. The larger the ratio, the more that gas warms the earth.

Governance

Broadly, governance is the concept of the full range of means for deciding, managing, implementing, and monitoring policies and measures. It is a more inclusive concept than the nation and state government, recognizing the contributions of the private sector and nongovernmental entities to society in addressing the issues facing the global community. In the environmental, social, and corporate context, governance of businesses or organizations takes into account their overall conscientiousness for social and environmental factors.

Green infrastructure

Green infrastructure is a set of natural and constructed ecological systems, green spaces, and other landscape features in a community. Its purpose, as enacted in the Water Infrastructure Improvement Act in 2019, is to filter and absorb stormwater where it falls. It does so through plant or soil systems, permeable pavement or surfaces, stormwater harvests, landscaping that stores, infiltrates, or evapotranspirates stormwater, all with the goal of reducing flow to sewer systems.

Greenhouse gas (GHG)

Greenhouse gases are gases that absorb and emit radiant energy within the thermal infrared range, causing the greenhouse effect. Water vapor, carbon dioxide, nitrous oxide, methane, and ozone are the primary greenhouse gases in our Earth's atmosphere.

Greenhouse gas removal (GGR)

This refers to a technique that removes greenhouse gases directly from the atmosphere through biological means like planting trees and increasing carbon stored in soil, and through engineered means like enhancing the rate at which minerals weather and devices that capture CO2 directly from the air, filter it, and store it. Also see *Negative emissions*.

Global Real Estate Sustainability Benchmark (GRESB)

GRESB is an organization driven by investors who are committed to evaluating the environmental, social and governance (ESG) performance of real assets, which includes real estate. They use assessment methodologies, objective scoring, and standardized benchmarks to provide asset-level operational performance data.

Gross energy intensity

Gross energy intensity is the ratio between total consumption of a particular energy source (for example: a group of buildings) and the total square footage of those buildings. This includes buildings and floor space where the energy source is not actually being used.

H

Heat pump (geothermal)

A geothermal heat pump is a ground source used for heating and cooling systems for buildings. It takes advantage of the consistency of temperatures in the earth's ground throughout the different seasons.

Heating, ventilation, and air conditioning (HVAC)

HVAC is a technology used to control the temperature, humidity, and purity of the air in indoor environments, particularly buildings or vehicles. HVAC provides comfort and healthy air quality to the occupants of the environment.

Heating intensity

Heating intensity is a ratio of heating consumption to square footage of heated floor space and heating degree days. This ratio provides a way to compare different types of buildings or households by taking into consideration building size and weather. It is calculated on a weighted, aggregate basis according to the following formula Heating Intensity =Btu for Space Heating / (Heated Square Feet * Heating Degree-Days).

Horizontal axis wind turbine

This is the most common type of wind turbine, whereas the axis of rotation is oriented horizontally.

Hydraulic fracturing

Hydraulic fracturing, also known as fracking, is a process that involves the fracture of bedrock formations by pumping a fluid at high pressure into a well. The fractures in the bedrock are held open by the proppant to extract oil or gas. It requires rigorous safety regulations to prevent poisoning groundwater, polluting surface water, impairing wildlife, and threatening ecosystems.

Hydroelectric power

Hydroelectric power is electricity that has been produced by flowing water.

I

Impact assessment (climate change)

Impact assessments, particularly in climate change, identifies and evaluates the monetary and non-monetary effects of climate change on people, communities, economic activities, infrastructure, ecosystems, or valued natural resources.

IEA

The International Energy Agency is an intergovernmental organization established in 1974 originally with the purpose of ensuring the world's oil supply. It has evolved to ensure reliable, affordable, and clean energy for all 29 member countries.

Incentives Demand-Side Management (DSM) program assistance

This DSM program offers incentives to subsidize energy projects. It encourages consumers to purchase energy-efficient equipment or to participate in programs meant to reduce their energy usage. Some examples of the incentives given are rebates, access to zero or low-interest loans, or direct installation of low-cost equipment.

Independent power producer

An independent power producer, also known as a non-utility generator, is an entity that owns and operates facilities to generate electricity to be sold to end users or utilities but are not considered a utility themselves.

Independent system operator (ISO)

Independent system operators coordinate regional transmission and generation across a wide area. They do so to ensure safety and reliability in the electricity system.

Intergovernmental Panel on Climate Change (IPCC)

Established in 1988, the Intergovernmental Panel on Climate Change assesses the scientific information relating to climate change to be able to form realistic response strategies.

Investor-owned utility (IOU)

An IOU is a privately-owned utility whose stock is publicly traded. It is rate-regulated and authorized to achieve an allowed rate of return.

J

Justice (Climate)

Climate justice links development and human rights to achieve a human-centered approach to addressing climate change, prioritizing the rights of the more vulnerable population, and sharing the burdens of climate change.

Justice (Social)

Social justice has to do with just or fair relations within a society that seek to address the distribution of wealth, access to resources, opportunity, and support.

Jurisdictional utilities

Utilities regulated by public laws.

K

Kilowatt (kW)

One thousand watts of electrical power.

Kilowatt hour (kWh)

A measure of electricity defined as a unit of energy, measured as 1 kilowatt (or 1,000 watts) of power consumed for 1 hour.

Kyoto Protocol

First adopted in 1997 in Kyoto, Japan, at the 3rd session of the Conference of Parties (COP3), the Kyoto Protocol contains legally binding commitments about reducing greenhouse gas emissions. It first stated greenhouse gas emissions must be at least 5% lower than 1990 levels by the commitment period, 2008 - 2012. In 2012 at COP18, a second commitment period was established that said parties committed must reduce greenhouse gas emissions by at least 18% lower than 1990 levels from 2013 to 2020. However, this second commitment did not receive enough ratifications to go into force.

L

Life cycle assessment (LCA)

A life cycle assessment is a compilation and evaluation of the inputs, outputs, and potential environmental impacts that a product or service has throughout its full lifecycle.

Load (electric)

A load is an electrical component or portion of an electrical circuit that consumes power. It can refer to an individual consumer's usage or an electrical appliance's usage.

Load control program

Another form of demand-side management, a load control program, is an offer by the utility company for a lower rate in exchange for having the permission to turn off the air conditioner or water heater for short periods of time. This will allow the utility to reduce peak demand. *Also see Demand-side management*.

M

Marketed energy

A commercially traded energy source. Usually, this energy is sold by a producer, like a petroleum refiner, through a transmission and distribution network (e.g., pipelines and trucks) to an end-use consumer (e.g., gasoline sold at the pump).

Megawatt (MW)

One million watts of electricity.

Megawatt hour (MWh)

One thousand kilowatt-hours or 1 million watt-hours.

Mitigation (of climate change)

Human intervention in order to reduce emissions and/or increase sinks for greenhouse gasses.

Mitigation measures

Technologies, processes, or practices that contribute to mitigation of climate change, e.g., renewable energy technologies, waste reduction processes, and public transport practices for commuting.

Montreal protocol

The Montreal Protocol on Substances that Deplete the Ozone Layer (1987). This international agreement was signed by most industrialized nations and is meant to substantially reduce the use of chlorofluorocarbons (CFCs). Signed in January 1989, the original document called for a 50-percent reduction in CFC use by 1992 relative

to 1986 levels. The subsequent London Agreement called for a complete elimination of CFC use by 2000. The Copenhagen Agreement, which called for a complete phase out by January 1, 1996, was implemented by the U.S. Environmental Protection Agency.

N

Nationally Determined Contributions (NDCs)

A term used under the United Nations Framework Convention on Climate Change (UNFCCC) whereby a country that has joined the Paris Agreement outlines its plans for reducing its emissions. Some countries' NDCs also address how they will adapt to climate change impacts, and what support they need from, or will provide to, other countries to adopt low-carbon pathways and to build climate resilience.

Negative emissions

Removal of greenhouse gasses (GHGs) from the atmosphere via deliberate activities, in addition to the removal that occurs via natural processes. *Also see Greenhouse gas removal (GGR).*

NERC

The North American Electric Reliability Corporation. NERC develops and enforces reliability standards; annually assesses seasonal and long-term reliability; monitors the bulk power system through system awareness, and more.

Net negative emissions

Net negative emissions are achieved when, as result of human activities, more greenhouse gasses are removed from the atmosphere than are emitted into it.

Net zero CO2 emissions

Net zero carbon dioxide (CO2) emissions are achieved when CO2 emissions are balanced globally by CO2 removals over a certain period. Net zero CO2 emissions may also be referred to as carbon neutrality.

Net zero emissions

Net zero emissions are achieved when emissions of greenhouse gasses (other than CO2) into the atmosphere are balanced by removals over a certain period.

Related content: Utilizing Sustainability Reporting in the Journey Towards Net Zero

New York Power Authority (NYPA)

A public authority created by law that generates and transmits electricity for wholesale and retail customers in New York State. It is not under the jurisdiction of the New York State Public Service Commission.

Non-utility generation

Electric generation by end-users via distributed energy resources (DERs), or small power producers under the Public Utility Regulatory Policies Act, to supply electric power for industrial, commercial, and military operations, or sales to electric utilities.

NRECA

The National Rural Electric Cooperative Association. NRECA unites the United States' rural generation, transmission, and distribution cooperatives.

O

Off peak

A period of relatively low system demand. These periods usually occur in daily, weekly, and seasonal patterns and off-peak periods differ for each individual electric utility.

On-peak

Periods of relatively high system demand. Like off-peak hours, these periods often occur in daily, weekly, and seasonal patterns and differ for each individual electric utility.

OPEC

The Organization of Petroleum Exporting Countries is an intergovernmental organization or cartel of 13 countries. Founded in September 1960, OPEC is headquartered in Vienna, Austria, although Austria is not an OPEC member state. OPEC's mission is to coordinate and unify the petroleum policies of its Member Countries and ensure the stabilization of oil markets in order to secure an efficient, economic, and regular supply of petroleum to consumers, a steady income to producers, and a fair return on capital for those investing in the petroleum industry.

P

Paris Agreement

The Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in December 2015 in Paris, France, at the 21st session of the Conference of the Parties (COP) to the UNFCCC. The agreement had 195 Signatories as of May 2018 and was ratified by 177 Parties. One of the goals of the Paris Agreement is "Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels" as a way to significantly reduce the impacts of climate change. Additionally, the Agreement aims to strengthen the ability of countries to deal with the impacts of climate change. *Also see United Nations Framework Convention on Climate Change (UNFCCC), Kyoto Protocol, and Nationally Determined Contributions (NDCs).*

PBR

Performance-Based Rates. This is an approach to utility regulation designed to strengthen utility performance incentives. PBRs are synonymous with incentive regulation. The two most common forms of PBRs are award-penalty mechanisms ("APMs") and multiyear rate plans ("MRPs"). Both involve mathematical formulas that can lower regulatory cost at the same time that they encourage better performance.

Peak Load

Also known as peak demand or peak load contribution, peak load is a period of time when electrical power is needed for a sustained period based on demand. It is

typically a shorter period when electricity is in high demand. The constant power needed by the electrical grid is the base load.

Related content: Everything You Need to Know About Peak Load Management

Peaker Plant

A power plant that is only run when it is expected to meet or exceed peak load on the grid. Peaker power plants are often older, run on the dirtiest fuels, and require immense amounts of energy to turn on.

Plug-in hybrid electric vehicle (PHEV)

See Electric vehicle (EV).

Potential peak reduction:

The potential annual peak load reduction (measured in kilowatts) that can be deployed from Direct Load Control, Interruptible Load, other Load Management, and other DSM Program activities. (Please note that Energy Efficiency and Load Building are not included in Potential Peak Reduction.) It represents the load that can be reduced either by the direct control of the utility system operator or by the consumer in response to a utility request to lessen load, e.g., turning off lights. It reflects the installed load reduction capability, as opposed to the Actual Peak Reduction achieved by participants, during the time of annual system peak load.

Private electric utility

A class of ownership in the electric power industry where the utility is regulated and authorized to achieve an allowed rate of return.

Public utility

An enterprise providing essential public services, such as electric, gas, telephone, water, and sewer under legally established monopoly conditions.

Publicly owned electric utility

A class of ownership in the electric power industry. This group includes those utilities operated by municipalities and State and Federal power agencies.

R

Renewable energy resources

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

Related content: Renewable Energy Sources – Ones to Watch Right Now

Renewable fuels (other)

Fuels and fuel blending components (except biomass-based diesel fuel) renewable diesel fuel, and fuel ethanol, produced from renewable biomass. Note: This category "other" pertains to the petroleum supply data system.

Renewable Energy Credits (RECs)

Renewable Energy Credits (RECs) are tradable, non-tangible commodities that represent proof that 1 MWh of electricity was generated from a renewable energy resource and was then fed into the shared system of power lines that transport energy.

Related content: Renewable Energy Credits (RECs), Explained

S

Science-Based Targets Initiative (SBTi)

The SBTi drives ambitious climate action in the private sector by enabling companies to set science-based emissions reduction targets.

Related content: Setting a Science-Based Target at Your Company – What You Need to Know

Scope 1, 2, 3 emissions

Many companies measure and set their emissions reduction goals via a framework of three “scopes.” They are as follows:

Scope 1

This encompasses emissions resulting from the direct activities of your company, e.g., fuel used by facilities and vehicles that your company owns or operates.

Scope 2

These are emissions resulting from the generation of procured electricity your company consumes, e.g., electricity and steam.

Scope 3

This includes the emissions from indirect sources in your company’s supply chain, e.g., purchased raw goods, distribution and transportation, employee commuting, use of sold products and end of life treatment.

Related content: Carbon Accounting – Everything You Need to Know

Sequestration

Often discussed in relevance to Greenhouse Gas or Carbon Dioxide sequestration, sequestration is the act of storing a substance for removal or isolation, i.e. for sequestration. For carbon sequestration, for example, carbon is store, or sequestered, in a carbon pool so that it may not affect biological and chemical processes in the atmosphere. A carbon pool, or “sink,” is not a “sink” in the literal sense, but more of a naturally occurring area in which carbon exists and can be stored in the environment. A pool or sink might be a geologic formation underground, a biological formation such as a grassland, or a body of water. Carbon sequestration is often discussed in tandem with Carbon capture and storage (CCS), however, the main difference is that CCS involves the transportation of carbon to another location.

Solar energy

The energy of the sun, which can be converted into other forms of energy, such as heat or electricity.

Standby electricity generation:

The use of generators during times of high energy demand on utilities to avoid extra "peak-demand" charges.

Supply-side measures

See Demand-and supply-side measures.

Sustainability

Sustainability refers to the ability of something to maintain or "sustain" itself over time. In the context of climate change, sustainability often means changing our energy, transportation, and other systems so they contribute less to warming the planet.

Related content: Planning Your Company's Sustainable Future – A Guide to Sustainability Reporting

Sustainability Accounting Standards Board (SASB)

The non-profit SASB was founded in 2011 with a mission of "helping businesses around the world identify, manage and report on the sustainability topics that matter most to their investors." In other words, SASB is bridging the gap between sustainability reporting and financial reporting. To accomplish this, SASB has developed 77 sets of industry-specific standards that focus on what they have determined to be the most financially material topics for each industry. According to SASB, these are "issues that are reasonably likely to impact the financial condition or operating performance of a company and therefore are most important to investors."

Related content: SASB – Everything You Need to Know to Start Reporting

Sustainable Development (SD)

Development that meets our present needs without compromising the ability of future generations to meet their own needs, i.e., contributing to global warming or using up resources.

Sustainable Development Goals (SDGs)

The 17 global goals for development for all countries established by the United Nations. They include ending poverty and hunger; ensuring health and well-being, education, gender equality, clean water and energy, and decent work; building and ensuring resilient and sustainable infrastructure, cities and consumption; reducing inequalities; protecting land and water ecosystems; promoting peace, justice and partnerships; and taking urgent action on climate change.

T

TCFD

The Task Force on Climate-related Financial Disclosures was created by the Financial Stability Board. TCFD is a guidance framework that helps companies disclose climate-related financial risks to investors, lenders, and insurers. TCFD recommendations are focused on governance, strategy, risk management, and metrics and targets.

Temperature overshoot

The temporary exceedance of a certain level of global warming, such as 1.5°C.

Tipping point

The point at which small changes become notable enough to cause a larger, more critical change that can be sudden, irreversible, and even lead to cascading effects.

Transmission and distribution loss:

Electric en-ergy lost during the process of transmission and distribution. Much of the energy lost is thermal.

Transmission system (electric):

An interconnected group of electric transmission lines and equipment used to move electric energy between different points.

Related content: Transmission and Distribution and Supply – Utility Expenses Explained

U

United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC was adopted in May 1992 and opened for signature at the 1992 Earth Summit in Rio de Janeiro. It entered into force in March 1994 and as of May 2018 had 197 Parties (196 States and the European Union). The Convention's ultimate objective is the 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.' The provisions of the Convention are pursued and implemented by two treaties: the Kyoto Protocol and the Paris Agreement. Also see Kyoto Protocol and Paris Agreement.

United States Environmental Protection Agency (U.S. EPA)

A federal agency founded in 1970 to coordinate governmental action for protection of the environment via systematic lessening and control of pollution. EPA work involves integration or research, monitoring, standards setting and enforcement activities.

United States Energy Information Association (U.S. EIA)

An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and does analytical and modeling analyses of energy issues. The Agency must comply with the requests of Congress, other elements within the Department of Energy, Federal Energy Regulatory Commission, the Executive Branch, its own independent needs, and assist the general public, or other interest groups, without taking a policy position.

Utility distribution companies

The entities that provide regulated services for the distribution of electricity to customers and serve customers who do not choose direct access. Regardless of where a consumer chooses to purchase power, the customer's current utility, also known as the utility distribution company, will deliver the power to the consumer.

Utility generation

Energy generation by electric systems that are engaged in selling electric energy to the public.

Utility-sponsored conservation program

Any program sponsored by an electric and/or natural gas utility to review equipment and construction features in buildings and suggest ways to increase the energy efficiency of buildings. Also included are utility-sponsored programs to encourage the use of more energy-efficient equipment. *Also see Demand-side management*.

Uptake

The process by which oceans, plants, and forests absorb carbon.

W

Wholesale electric power market

The purchase and sale of electricity from generators to retailers, along with the secondary services needed to maintain reliability and power quality at the transmission level.

Wholesale transmission services

The transmission of electric energy sold, or to be sold, in the wholesale electric power market.

Z

Zero emissions commitment

See Climate change commitment.

ABOUT WATCHWIRE

WatchWire is an entrepreneurial, private equity backed New York City-based provider of sustainability and energy management software-as-a-service and associated professional services to large commercial and corporate real estate, retail portfolios, industrial energy consumers, and utilities. By combining various streams of utility, weather, commodity market, metering, and building data in our integrated sustainability and energy management platform, we provide data-driven services and insights that help clients track and meet their ambitious sustainability goals, while also saving them time and money, reducing risks, and identifying cost saving opportunities.

Through our platform, we serve nearly a billion square feet of real estate, thousands of utility accounts, and ~$3 billion in annual utility spend across 49 states and 4 continents. Regardless of the ultimate end use case(s), we believe timely, accurate, and complete data is paramount to energy and sustainability management and reporting.

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