



Distributed Energy Resources Glossary

Advanced metering infrastructure (AMI) – An integrated system of smart meters, communication networks, and data management systems that enables two-way communication between utilities and customers.

Aggregator – An entity that contracts with multiple end-use customers and combines their loads or DERs into one block of demand in wholesale markets (either for the purpose of serving that load with supply, or, in electricity markets, for providing a block of load management resources).

Alternating current (AC) – An electric current that reverses its direction in a conductor at regular time intervals.

Ancillary services – The services in addition to electric supply that are required to deliver electricity to end users and to maintain system reliability. These include automatic generation control (also known as frequency regulation), reserves, voltage support, and black start.

Apparent power – The amount of power that comprises both real and reactive power, measured in volt-amps (VA), kilovolt-amps (kVA), or megavolt-amps (MVA).

Automatic meter reading (AMR) – The process of collecting meter data remotely through a communications system that sends the data through an automated system.

Backup generator – A generating unit that is used only when the primary source of power is unavailable.

Balancing – The act of matching volumes of electricity delivered into the grid or removed from the grid to the volume of electricity scheduled in the day-ahead or intra-day market.

Balancing authority – An entity responsible for scheduling electric supply to match forecasted demand, maintaining supply/demand balance within a specific region called the Balancing Authority Area, and maintaining frequency within acceptable tolerances at interconnections with other areas.

Balancing power – See **imbalance energy**

Baseload – Electric usage that is constant across a period of time (such as a day, week, month or year). Generating units that run all 24 hours of the day.

Battery – A device that converts chemical energy directly to electric energy from substances contained within one or more battery cells.

Black start – Generation that can start up without energy from the grid.

Blackout – The loss of power to a portion of the electric distribution or transmission system.

Bulk Electric System (BES) – The electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment generally operated at voltages of 100kV or higher.



Bundled service – Gas or electric sales service and distribution service packaged together in a single transaction. Usually provided by the gas or electric utility, which, on behalf of its customers, buys supply and delivers it to the customer.

CAISO – The California ISO, a system operator providing services to large portions of California and some parts of other western states.

Capacitor – A device that stores electrical charge and is used to improve power factor and/or help with voltage regulation.

Capacity – Electric generation that is available in a specific region or market to ensure reliability.

Capacity factor – The ratio of actual energy produced by a generating unit over a period of time to the energy that would have been produced had the unit run at its rated capacity for the full period of time.

Capacity payment – A payment for making electric generation capacity available to another party or the market.

Capital – Upfront money expended to acquire or build long-term assets.

Centralized generation – Generation connected to the high voltage electric transmission grid.

Circuit – A complete path through which electricity travels; comprised of a source of electron flow, a conductor, and load.

Circuit breaker – A device that interrupts electricity flow to a circuit by isolating the circuit from the source of electricity.

Cogeneration – The use of fuel to produce electricity as well as another product, such as steam or hot water; a type of CHP.

Combined-cycle gas turbine (CCGT) – A power plant that uses a gaseous fuel to drive two types of turbines in succession: first a combustion turbine fueled by the gas, then a steam turbine fueled by steam created from water heated with the waste heat from the combustion turbine.

Combined heat and power (CHP) – A plant designed to produce both heat and electricity from a single fuel source.

Combustion turbine (CT) – A technology for generation that uses air and gaseous fuel to drive a gas turbine, also known as a single-cycle gas turbine.

Commercial customer – An end user that uses power or gas to create a service. Sometimes used by electric utilities to refer to manufacturing customers smaller than a certain size (commonly smaller than 500 kW).

Commodity – Anything that is bought and sold in a highly competitive market. Commodities typically have many buyers and sellers, are very liquid, and are subject to fluctuation in price according to supply and demand.



Communication – Signals received from and/or sent to DER asset owners and/or aggregators.

Conductor – A material that allows electrons to move easily from one atom to another, thereby facilitating electric flow. Typically used to describe a wire that conducts electricity in any part of the electrical grid.

Congestion – A condition that occurs when the amount of requested transactions across an electric transmission path exceeds the physical capacity of that path.

Control area operator – The entity that performs system operations in a specific region, also called a system operator.

Controllable load – A customer-owned device that can be remotely controlled to adjust usage.

Co-op – See **electric co-op**

Current – The rate of flow of electrons through a conductor, commonly measured in amperes (amps).

Curtailed service provider (CSP) – An entity that aggregates customers willing to participate in demand response programs or markets.

Customer – An entity that purchases energy services to serve grid-connected equipment and appliances (also called load).

Customer charge – A fixed monthly amount paid by a customer regardless of actual demand or consumption.

Customer choice – The ability of an end-use customer to choose its gas or electricity supplier.

Demand – The total amount of electricity used at any given moment in time, usually measured in kW or MW.

Demand charge – The portion of an electric end-user charge that is based on the maximum demand recorded over a specified period of time (typically 15 minutes).

Demand curve – A graph showing demand plotted across time.

Demand response (DR) – The act of shifting loads from one time period to another in response to an incentive.

Demand side management (DSM) – The act of permanently reducing energy usage without reducing benefits (energy efficiency) or of shifting loads from one time period to another in response to an incentive (demand response).

DER asset owner – Individuals, aggregated groups, or companies that own or have proxied ownership control of DER assets.

Direct current (DC) – An electric current that flows in one direction only.



Dispatch – The act of a system operator ordering a generating unit to come online or change its current level of output.

Dispatch stack – A list, typically in order from least cost to highest cost, of power plants scheduled to run at a specific point in time to match supply to electric demand.

Distributed energy resource (DER) – An electricity resource that is either behind a meter on a customer premises or connected to a utility distribution system. This includes battery energy storage, renewable energy, distributed generation, demand response, energy efficiency, thermal storage, and electric vehicles and their supply equipment.

Distributed energy resource aggregator (DERA) – An entity that aggregates one or more distributed energy resources for purposes of participation in the capacity, energy and/or ancillary service markets of RTO/ISOs.

Distributed generation (DG) – Generation connected to the distribution system, including generation located at an end-use customer’s facility.

Distributed energy resource management system (DERMS) – IT system that allows utilities to manage distribution grids with a variety of interconnected DER assets, including behind-the-meter and larger utility-grade resources, while utilizing the benefits from the distributed resources.

Distributed energy resource manager (DERM) – Entity responsible for the monitoring, management, coordination, and optimization of numerous DERs owned and operated by the utility, independent producers, or third-party aggregators.

Distribution – The delivery of electricity from the transmission system to the customer meter over medium-and low-voltage lines (typically with a voltage of 50 kV or lower).

Distribution grid operator (DGO) – Entity responsible for the real-time operations of the electric distribution system within its jurisdiction.

Distribution market operator (DMO) – Entity responsible for managing a platform for utility and third-party bids, offers, and bilateral transactions for distribution services, as well as transaction clearing and settlement.

Distribution market participant – Individuals, aggregated groups, or companies that buy or sell services to the distribution market.

Distribution resource plan (DRP) – A planning process for distribution systems that identifies the optimal locations for deployment of DERs and identifies the value DERs can provide to the distribution grid.

Distribution substation – A substation located on the distribution system, usually where the transmission grid meets the distribution system or where distribution voltage is reduced from a primary feeder to a secondary feeder.



Distribution utility – Any electric cooperative, private corporation, government-owned utility, or existing local government unit that has an exclusive franchise area to operate a distribution system. Responsible for the ownership, field operations, and electric distribution system within its jurisdiction.

Economic demand response (EDR) – Programs that offer end-use customers the opportunity to modify their electric usage in response to price signals or other economic rewards.

Electric co-op – An electric utility owned by its customers.

Electric distribution system – The portion of the electric grid that originates at the interconnection with the transmission system and delivers electric power to end-use consumers at required voltages.

Electrical power – The rate of work that can be accomplished by electricity; commonly measured in units of watts, kilowatts, or megawatts. Also commonly used to refer to electricity in general.

Electricity – The flow of electrons through a conductor.

End user – The ultimate consumer of gas or electricity.

Energy – The capacity for performing work. On the electrical system, this is defined as demand over time measured in kWh or MWh.

Energy efficiency – The act of using less electricity to perform the same amount of work or to get the same end value.

Energy management system (EMS) – A system of computer-aided tools used by operators of electric utility grids to monitor, control, and optimize the performance of the generation or transmission system.

Energy services company (ESCO) – A company that provides services to end users relating to their energy usage. Common services include energy efficiency and demand side management.

ERCOT (Electric Reliability Council of Texas) – The independent system operator providing system operations to large parts of Texas.

Expense – Money expended on short-term assets or other non-capital expenditures.

Fault – A failure or interruption in an electrical circuit.

Federal Energy Regulatory Commission (FERC) – A federal agency of the U.S. government that regulates the interstate transmission of electricity, natural gas, and oil. FERC also reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines as well as license hydropower projects.

Feed-in tariff – A means of compensating DER owners for electricity put onto the grid by paying a specific price for the energy supplied.



Feeder line – An electrical distribution line or a gas distribution pipe that carries supply to another line rather than to an end user.

Flexible load – Customer demand that has the capability of being adjusted in response to control signals or financial incentives.

Flywheel – A mechanical device used to store electricity by converting electricity to kinetic energy of a rotating wheel with low friction.

Financial transmission right (FTR) – A right to receive financial compensation for congestion costs on a specific electric transmission path.

Forward market – A market in which delivery of the item purchased is at some future point in time. In electric markets, the delivery is at least two days away from the day of purchase.

Frequency – How often the direction of flow reverses in an AC circuit, commonly measured in Hertz (Hz).

Frequency support – The use of electric resources to maintain system frequency at acceptable levels.

Fuel cell – A device that converts chemical energy directly to electric energy from a fuel source that is external to the cell.

Gateway inverter – A device for converting frequency and simultaneously communicating with the grid by providing monitoring and analytical information. It also has the ability to run diagnostics to find and correct faulty behavior.

Generation – The creation of electricity by transforming other forms of energy to produce electrical current (amperage) to flow. The amount of energy produced in a given amount of time, expressed in kWh or MWh.

Generator – The part of a power plant that converts the mechanical power of a spinning shaft to electricity. Often the term is used to indicate the whole power plant, including the source of mechanical power.

Geothermal – Energy extracted from the earth or near the earth's surface.

Grid – Usually used to describe the interconnected electric transmission system, although sometimes used with distribution (distribution grid) to describe the distribution system.

Grid edge – Technologies working near or at the end of distribution grids. New processes and business models surfacing from grid-end solutions are also part of the definition.

Grid modernization – The application of sensors, control devices, communications, centralized and local intelligence, and other technologies in the electric grid to improve grid performance, capabilities, and/or economics.

Heat rate – The amount of fuel required to generate a specified amount of electricity, usually expressed in Btu/kWh or MMBtu/MWh.

Imbalance – The discrepancy between the amount of electricity an entity schedules to deliver into or receive from the grid and the actual amount the entity delivers or receives.



Imbalance energy – Power bought or sold by the electric system operator during an operating hour to keep the system supply in balance with demand.

Incentive ratemaking – A form of rate making that rewards utility shareholders for achieving goals set by the regulator.

Independent entity – An organization that does not currently exist that would be established to perform DMO and/or DERM, and possibly even DGO roles. This entity could manifest itself as a for-profit company, government or pseudo-government agency, or a not-for-profit organization.

Independent power producer (IPP) – A generation company that is not part of a regulated, vertically integrated utility company. IPPs typically sell much of their output under a long-term bilateral contract.

Independent system operator (ISO) – An independent entity responsible for real-time operations of the bulk transmission system and operation of a competitive wholesale power market within its jurisdiction. Also responsible for long-term transmission planning.

Inductive load – Loads that require both real and reactive power, such as motors and fluorescent lights.

Integrated resource plan (IRP) – The process by which a utility forecasts future demand, evaluates all its options for satisfying that demand, and then develops a supply plan for serving it.

Interconnection – The facilities that connect two electric lines. The facilities where a generator or a DER connects to the electric grid.

Interruptible rates – An electric rate schedule whereby the end-use customer agrees to not use power during certain hours when instructed by the system operator (used by the system operator as a means of maintaining reliability). In return, the customer receives a rate discount.

Inertia – The ability to resist a change in frequency.

Intertie – An electric transmission interconnection permitting passage of current between two or more electric utility systems.

Inverter – A device that converts direct current (DC) electricity to alternating current (AC).

Investor-owned utility (IOU) – A regulated monopoly utility that is owned by shareholders and runs as a for-profit entity.

Islanding – Operating a portion of the transmission or distribution grid while separated from the rest of the grid.

ISO New England – The system operator for multiple states in the U.S. Northeast.

Kilovolt-amps (kVA) – A thousand volt-amps.

Kilovolt-amps reactive (kVARs) – A thousand volt-amps reactive.



Kilovolt (kV) – A thousand volts.

Kilowatt-hour (kWh) – A unit of energy equal to 1,000 watt-hours.

Kilowatt (kW) – A unit of demand equal to 1,000 watts.

Kinetic energy – Energy available from an object as a result of motion.

Levelized costs – The lifetime costs of energy production, including up-front capital costs and ongoing operating and maintenance costs, divided by the total amount of energy produced over the lifetime of the asset.

Load – An amount of end-use demand.

Load modifier – A DER that is not modelled as a separate resource but is simply treated as a device that impacts a customer's load curve.

Load-serving entity (LSE) – An entity that sells electric supply to an end user.

Locational marginal pricing (LMP) – A method of setting prices in an ISO market whereby prices at specific locations on the grid are determined by the marginal price of generation available to that specific location.

Low frequency ride through – The ability of a DER to stay on-line for a specified period of time, even though system frequency has dropped below normal system tolerances.

Low voltage ride through – The ability of a DER to stay on-line for a specified period of time, even though local voltage has dropped below normal tolerances.

Market-based rates – Charges for energy services that are determined by market forces rather than the regulator.

Marketer – An entity that buys gas or electricity, arranges for its transportation, and then resells it to end users or other gas purchasers.

Megawatt-hour (MWh) – A unit of energy equal to 1,000,000 watt-hours or 1,000 kilowatt-hours.

Megawatt (MW) – A unit of demand equal to 1,000,000 watts or 1,000 kilowatts.

Meter – A device used to measure the amount of gas or electricity flowing through a point on the system.

Microgrid – A connected set of DERs that can be operated connected to the greater grid or islanded from the greater grid.

Microturbine – A gas turbine generator with a nameplate rating of 500 kW or smaller.

MISO – The Midcontinent ISO, a system operator serving portions of the Midwest and Southeast in the U.S. as well as providing reliability services to the Canadian province of Manitoba.

Muni – See **municipal utility**



Municipal utility – A utility owned and operated by a municipality or a group of municipalities.

Net load – System load that is served by traditional generation after all renewable supply has been used, equal to total customer load less renewable generation. Also, the load on a specific circuit remaining to be served from the BES after all supply provided by DERs has been utilized.

Net energy metering (NEM) – A means of compensating DER owners, who are end-use consumers, for electricity put onto the grid, whereby energy supplied to the grid is subtracted from the energy the owner consumes prior to calculating their bill for energy consumption.

North American Electric Reliability Corporation (NERC) – An international, independent, self-regulated, not-for-profit organization whose mission is to promulgate electric operation and planning standards and ensure the reliability of the bulk power system in North America.

North American Energy Standards Board (NAESB) – An industry group of energy companies created to standardize operating and scheduling procedures for natural gas and electricity across North America.

New York ISO – The system operator providing services to the state of New York.

Off-peak – The period of a day, week, month, or year when demand is at its lowest.

Ohm (Ω) – The basic unit of resistance in an electrical circuit.

Ohm's Law – Physical law that quantifies the relationship among voltage, current, and resistance in an electrical circuit.

Open access – The requirement that a transmission system transmits electricity for any credit-worthy party on a non-discriminatory basis.

Output – The amount of energy put onto the grid by a supply resource over a specific period of time, usually measured in MWh.

Peak demand – The maximum demand for natural gas or electricity during a given period of time.

Peaking units – Generating units normally run only during times of peak demand on a system.

Performance-based ratemaking (PBR) – A form of incentive ratemaking in which a utility's actual performance (either financial or service-wise) is compared against specified baselines. The utility can attain extra earnings if the baseline is exceeded but can lose earnings if the baseline is not achieved.

Photoelectric effect – A natural phenomenon where certain materials produce an electric flow when they are struck by sufficient amounts of light.

Photovoltaic cells (PV) – A cell containing material that converts light into electricity.

PJM – An ISO in the U.S. that is the system operator for parts of Mid-Atlantic, Northeast, and Midwest states.



Power — See **electrical power**. Power is synonymous with demand in kW or MW. A synonym for electricity.

Power factor — The ratio of real power to apparent power in an electrical system or circuit.

Power plant — A combination of connected generators and other equipment that produces electric power. Synonymous with generating unit.

Power purchase agreement (PPA) — A contract for the sale/purchase of electricity.

Power quality — A measure of the level of voltage and/or frequency disturbances.

Primary distribution — A voltage on the distribution system that is lower than transmission voltage and higher than secondary voltage ranging from 600 volts to 50kV. Common voltages include 4160V, 12.5 kV, 25 kV, 36 kV, and many others.

Producer — An entity that provides energy services from connected distributed energy resources and related equipment.

Prosumer — An individual or business who purchases and installs electricity-generating equipment that will produce some amount of kWh to offset their electric usage.

Public service commission (PSC) — The state agency that regulates the activities of investor-owned utilities (and municipal utilities in some states).

Public utility — A regulated entity that supplies the public with an essential service, such as electricity, natural gas, water, or telephone.

Public utilities commission (PUC) — See **public service commission**

Public utility district (PUD) — A utility run by a local governmental agency or a group of governmental agencies other than a municipality.

Ramping — The act of increasing or decreasing the output of a supply resource.

Ramp rate — The speed at which a supply resource can increase or decrease its power output, usually stated in terms of MW per minute.

Rate — A regulated price charged by a regulated entity, such as a utility.

Rate design — The development and structure of rates for regulated electric services.

Rate schedule — The commission-approved document setting out rates and terms of service specific to a certain service and service provider.

Rated capacity — The maximum power in megawatts that a supply resource is designed to provide to the grid.

Reactive loads — Electric consuming devices such as fluorescent lights and motors that cause the electrons in the circuit to lag behind the voltage in time due to the way they use electricity.

Reactive power — The form of electric power that is measured in volt-amps reactive (VAR), kilovolt-



amps reactive (kVAR), or megavolt-amps reactive (MVAR).

Real power – The form of electric power that is measured in watts (W), kilowatts (kW), or megawatts (MW).

Reciprocating engine – An engine that converts pressure to rotating movement by using pistons to turn a crankshaft.

Regional transmission organization (RTO) – An ISO that operates over a regional geographic area and fits specific criteria defined by FERC.

Regulation – The myriad of rules or orders issued by state or federal agencies that dictate how gas or electric service is provided to customers. Ramping a supply resource up or down in real time to match supply to demand and maintain system frequency within acceptable tolerances.

Regulator – The governmental entity that sets the rules and orders that make up regulation.

Reliability – A measure of how often electrical service is interrupted.

Renewable energy – Electricity that is generated from a source that is naturally replenished in a reasonably short period of time, such as solar, wind, geothermal, biomass, and hydro. Sometimes the term is not applied to large-scale hydro due to assumed environmental impacts of large hydro projects.

Reserves – Generation capacity that is available to the system operator if needed but that is not currently generating electricity.

Resilience – The ability to recover from a disturbance or outage.

Resistance – A measure of the strength of impedance to the movement of electricity through a conductor, commonly quantified in units of ohms.

Resources – The amount of available electric capacity in a specific region or market.

Retail access – The opportunity for an end user to buy gas or electric supply from someone other than its regulated utility distribution company.

Retail competition – The opportunity for multiple electric suppliers to compete to sell gas or electric supply service to end-use customers.

Retail marketer – A firm that sells products and services directly to end users.

Ride-through – The act, by a generating facility, of connecting to and synchronizing with the transmission system during system disturbances within a range of over and under-frequency conditions, in accordance with good utility practice.

Rules – Commission-approved general terms of service included in tariffs.

Scheduling – The process of determining which supply resources will be providing energy or on reserve status for a specific hour.

Secondary distribution – A voltage on the distribution system that is at the level typically used by customers, such as 120V, 208V, 240V, 277V, 480V, or 2,400V.



Service – Electrical components that connect the service transformer to the customer, including the wires that run into the facility, the meter that measures electric deliveries, and the protective devices that ensure the safety of the service and circuits within the customer facility.

Service territory – The geographical area served by a utility.

Short circuit – An interruption in the flow of electricity due to an undesired conductor coming in contact with the electrical flow.

Simple-cycle gas turbine – See **gas combustion turbine**

Situational awareness – The ability of a system operator to effectively monitor and assess the state of a transmission or distribution grid.

Small hydro – Hydroelectric power facilities with an installed capacity of 10 MW or less.

Smart device – An electric device that is either remotely controllable or has local intelligence, making the device settings responsive to specific conditions.

Smart meter – An advanced solid-state meter that includes remote communication of data and may also provide remote control capabilities.

Solid state meter – A meter that measures consumption electronically, stores data digitally, and has an electronic register.

SPP – Southwest Power Pool, the independent system operator providing system operations in multiple states in the central U.S.

Storage – The capture of electrical energy produced at one time for use at a later time.

Substation – An electric facility containing switches, transformers, and other equipment used to adjust voltages, direct flow, and monitor circuits.

Supervisory control and data acquisition (SCADA) – An IT system for gathering and analyzing real-time data from networked devices and for sending control signals to some of these devices. SCADA systems are used to monitor and control supply resources and grid assets.

Supply – Electricity available to the grid.

Synchronous generator – A generator that provides AC power synchronized to the frequency of the grid.

System operator – The entity that manages the transmission grid by dispatching generation and scheduling reserves and transmission. In some cases, system operators may also facilitate short-term energy markets, ancillary reserves markets, and capacity markets.

System peak – The maximum load on an electrical system during a given period of time.

T&D interface – The location where the transmission and distribution systems interconnect, typically at a distribution substation.

Tariffs – Commission-approved terms of service for a regulated entity including rate schedules, rules, approved contracts, and service territory.



Thermal storage – A means of storing electricity by converting electricity to either heat or cold and using the heat or cold for a useful purpose at a later time.

Third-party aggregator – An entity that transacts with multiple consumers and/or producers to aggregate and transact bundled energy services for delivery to the DGO, utility, or RTO.

Time-of-use (TOU) meter – A meter capable of registering and recording the amount of usage in multiple defined time periods, such as peak and off-peak.

Transmission – The transport of electricity over high-voltage power lines from generators to the interconnection with the distribution system. The process of transporting large volumes of natural gas over long distances.

Transmission line – A power line with a voltage greater than 50 kV or 50,000 volts.

Transmission operator – The entity responsible for scheduling and operating a transmission system.

Transmission owner (TO) – The entity that owns a transmission line or transmission system.

Transmission substation – A substation located on the transmission grid, usually where two or more separate transmission lines interconnect.

Turbine – A machine with blades that are rotated by the movement of liquid or gas, thus converting the kinetic energy of the liquid to mechanical energy of a rotating shaft.

Usage – The same as energy in kWh or MWh.

Utility – Entity responsible for the ownership, field operation, and maintenance of the infrastructure and equipment of the electric distribution system.

Utility distribution company (UDC) – A regulated utility that provides distribution services to end users.

Visibility – The ability to retain situational awareness of all flows that can affect the BES. This includes having the ability to estimate the output of distribution-located resources that are not participating in the wholesale market.

Volt – A unit of measure of voltage.

Volt-amps reactive (VAR) – A unit of measure of reactive power.

Voltage – The electrical force that moves electricity through conductors; technically, the difference in electrical potential between any two conductors or between a conductor and ground.

Voltage support – The use of electric resources or grid devices to maintain voltage at acceptable levels.

Watt (W) – A unit measure of power or demand.

Wholesale trading – The buying and selling of power between parties that are not ultimate end users.



Wind turbine – A turbine that is spun through the kinetic energy in wind.



Distributed Energy Resources Acronyms

A – Amp

AC – Alternating current

AGC – Automatic generation control

AMI – Advanced metering infrastructure

AMR – Automated meter reading

ARC – aggregator of retail customers

BES – Bulk Electric System

BESS – Battery energy storage system

BTM – Behind-the-meter

CAISO – California Independent System Operator

CCGT – Combined-cycle gas turbine

CHP – Combined heat and power

CIP – Critical infrastructure protection

CSP – Curtailment service provider

CT – Combustion turbine

D – Distribution

DA – Day-ahead

DC – Direct current

DC – Distribution company

DER – Distributed energy resource

DERA – Distributed energy resource aggregator

DERa – the aggregation of DER

DERM – Distributed energy resource manager

DERMS – distributed energy resource management system



DG – Distributed generation

DO – Distribution operator

DR – Demand response

DRP – Distribution resource plan

DRR – Demand response resource

DS – Distributed storage

DSM – Demand side management

EDC – Electric distribution company

EDI – Electronic data interchange

EE – Energy efficiency

EIA – Energy Information Administration

EMS – Energy management system

ERCOT – Electric Reliability Council of Texas

ESCO – Energy services company

ESP – Energy services provider

EV – Electric vehicle

FERC – Federal Energy Regulatory Commission

FLM – Feeder load management

FTR – Financial transmission right

GW – Gigawatt

GWh – Gigawatt-hour

HAN – Home area network

HVAC – Heating, venting, and air conditioning

Hz – Hertz

IOU – Investor-owned utility

IPP – Independent power producer

IRP – Integrated resource plan



ISO – Independent system operator

ISO-NE – ISO New England

kV – Kilovolt

kVA – Kilovolt-ampere

kVAR – Kilovolt-ampere reactive

kW – Kilowatt

kWh – Kilowatt hour

LMP – Locational marginal pricing

LSE – Load-serving entity

MDM – Meter data management

MDMA – Meter data management agent

MISO – Midcontinent Independent System Operator

MW – Megawatt

MWh – Megawatt hour

NAESB – North American Energy Standards Board

NARUC – National Association of Regulatory Utility Commissioners

NEM – Net energy metering

NERC – North American Electric Reliability Corporation

NWA – Non-wires alternatives

O&M – Operations and maintenance

PBR – Performance-based ratemaking

PF – Power factor

PHEV – Plug-in hybrid electric vehicle

PJM – Pennsylvania New Jersey Maryland

PSC – Public service commission

PUC – Public utilities commission

PUD – Public utility district



PV - Photovoltaic

QF - Qualifying facility

RA - Resource adequacy

REC - Retail electric company, renewable energy credits

RERRA - Relevant Electric Retail Regulatory Authority

RLA - Residential load assessment

RPS - Renewable portfolio standard

RT - Real-time

RTO - Regional transmission organization

SCADA - Supervisory control and data acquisition

SPP - Southwest Power Pool

T - Transmission

T&D - Transmission and distribution

TO - Transmission owner

TOU - Time-of-use

UDC - Utility distribution company

UPS - Uninterruptible power supply

V - Volt

VA - Volt-ampere

VAR - Value-at-risk, volt-ampere reactive

VNEM - Virtual net energy metering

W - Watt

WECC - Western Electricity Coordinating Council