

## Glossary of industry terms and acronyms

### Key acronyms and terms

**A&G – Administrative and general** – A finance department term for a type of expense.

**BA – Balancing authority** – The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a balancing authority area and supports interconnection frequency in real time. Xcel Energy is the BA for our region.

**CCA – Community Choice Aggregator** – A local government entity that operates within the service area of an investor owned utility and purchases power on behalf of the community.

**CIP – Critical Infrastructure Protection** – Security systems and procedures established by the North American Electric Reliability Corporation to protect utility infrastructure.

**DR – Demand response** – Incentive-based programs that encourage electric power customers to temporarily reduce their demand for power at certain times in exchange for a reduction in their electricity bills.

**DG – Distributed generation** – The generation of electricity for use on-site (versus transmitting energy over the electric grid from a large, centralized facility).

**DER – Distributed energy resources** – Physical or virtual devices or systems that can be deployed on the electric distribution system or on customer premises that can be used to provide value to all customers through electric system optimization and/or individual customer benefits.

**DSM – Demand-side management** – Utility action that reduces or curtails end-use equipment or processes

**EIM – Energy imbalance market** – A market in which participating utilities can buy and sell energy.

**EE – Energy efficiency** – Programs that are aimed at reducing the energy used by specific end-use devices and systems, typically without affecting the services provided.

**EV – Electric vehicle** – A vehicle powered solely by electricity from an onboard battery storage system.

**IOU – Investor owned utility** – Private enterprise acting as public utilities.

**IPP – Independent Power Provider** – A corporation, person, agency, authority or other legal entity that owns or operates facilities for the generation of electricity for use primarily by the public; not an electric utility.

**IRP – Integrated resource plan** – Produced by a utility every four or five years as a forward-looking plan of resource needs to meet forecasted energy demand.

**JAA – Joint Action Agency** – A state-authorized organization serving power supply needs of municipal utilities. Platte River is a JAA.

**JDA – Joint dispatch agreement** – A bilateral energy market that includes Colorado Springs Utilities, Black Hills Energy, Xcel Energy and Platte River. In this micro-EIM, Platte River can sell energy to others when needed or purchase energy when we need it.

**RC / ERO – Reliability Coordinator / Electric Reliability Organization** – An organization that promotes bulk power system reliability and security responsible for compliance monitoring and enforcement and overseeing reliability planning and assessments. The Western Electricity Coordinating Council is the RC for the Western Interconnection.

**RDP – Resource Diversification Policy** – Adopted by the Platte River Board of Directors in December 2018, the RDP calls for a 100% noncarbon energy mix by 2030. The policy contains several must-achieve caveats before goal can be reached.

**RTO / ISO – Regional transmission organization / Independent system operator** – An organization that operates electricity markets over a portion of the transmission grid (ISO and RTO are often used interchangeably).

**SIP – State Implementation Plan** – A collection of regulations and documents used by a state to implement, maintain and enforce federal regulations.

## Key agencies/organizations

**APCD – Air Pollution Control Division** – Division of the Colorado Department of Public Health and Environment that handles air-related permitting and inspections of Colorado's regulated entities and proposes new regulations under existing state laws.

**AQCC – Air Quality Control Commission** – A board, appointed by the governor, that oversees Colorado's air quality program according to the Colorado Air Pollution Prevention and Control Act.

**AQE – Air Quality Enterprise** – The enterprise, through the department of contractors, conducts science-based, unbiased air quality modeling and monitoring and provides emission mitigation services.

**APPA – American Public Power Association** – A professional public power association that provides education, networking and advocacy services.

**ARPA – Arkansas River Power Authority** – A generation and transmission organization based in southeast Colorado.

**AWEA – American Wind Energy Association** – A trade association for the wind energy industry.

**CAISO – California Independent System Operator** – An RTO in the western states that also provides EIM services.

**CAMU – Colorado Association of Municipal Utilities** – The state’s (advocacy) association for public power utilities that are operated by local governments.

**CDPHE – Colorado Department of Public Health and Environment** – A Colorado agency responsible for public health and environmental regulation.

**COSSA – Colorado Solar and Storage Association** – A nonprofit association leading Colorado’s solar and storage industries.

**DORA – Department of Regulatory Agencies** – An umbrella regulatory agency in Colorado charged with managing licensing and registration for multiple professions and businesses, implementing balanced regulation for Colorado industries and protecting consumers. The Colorado PUC and OCC are agencies within DORA.

**EPA – Environmental Protection Agency** – A federal regulatory agency established in the 1970s responsible for the protection of human health and the environment.

**FERC – Federal Electricity Regulatory Commission** – An independent agency of the government that regulates the interstate transmission of electricity, natural gas and oil.

**LPPC – Large Public Power Council** – Comprised of 27 of the largest consumer-owned utilities in the U.S., the LPPC provides education, networking and advocacy services.

**NERC – North American Electric Reliability Corporation** – Subject to oversight by the FERC, the NERC is responsible for establishing and regulating reliability standards concerning the bulk electric system in the U.S. It audits owners and operators for preparedness and assesses overall system adequacy on an annual basis.

**OCC – Office of Consumer Counsel** – An agency within DORA that advocates on behalf of taxpayers (and utility customers) in front of other state regulatory agencies.

**PUC – (Colorado) Public Utilities Commission** – A board, appointed by the governor, that regulates investor owned utilities and other public services.

**RMEL – formerly Rocky Mountain Electric League** (now only known by acronym) – A professional utility organization that provides education and networking opportunities.

**SPP – Southwest Power Pool** – An RTO in 14 southern and southwestern states that provides EIM services.

**WAPA – Western Area Power Administration** – WAPA is a power marketing administration within the U.S. Department of Energy that markets and transmits wholesale electricity from multi-use water projects. Platte River is a WAPA customer.

**WECC – Western Electricity Coordinating Council** – WECC is the bulk electric system reliability coordinator for the entire Western Interconnection system.

## Glossary

**Alternating current** – An electric current or voltage that reverses its polarity or direction many times a second at regular intervals.

**Ampere** – The unit of measurement of electrical current produced in a circuit by 1 volt acting through a resistance of 1 Ohm.

**Capacitor** – A device made with two conductive plates separated by an insulator or dielectric.

**Carbon Dioxide** – A colorless, odorless, incombustible gas that occurs normally in Earth's atmosphere. Fossil fuel combustion, fermentation, respiration or chemical reactions produce carbon dioxide.

**Carbon neutral** – A concept focused on net zero energy operation and on reducing the use of fossil fuels achieved through a variety of energy reductions in generation of renewable energy and through the purchase of carbon offsets.

**Circuit** – A conductor or a system of conductors through which electric current flows.

**Circuit breaker** – A device designed to open and close a circuit by non-automatic means and to open the circuit automatically on a predetermined overcurrent without injury to itself when properly applied within its rating.

**Community solar** – A solar generating facility, which is financially supported by customer subscription, that is fed onto the distribution grid for distribution customers to use.

**Conductor** – A device or material that permits current to flow through it easily.

**Conventional and other technologies** – Technologies that have traditionally made up much of the U.S. generation mix, including coal and nuclear generation.

**Direct current** – An electric current that does not reverse its direction of flow; it is a continuous non-varying current in one direction.

**Dispatchable resource** – An energy source that is professionally managed to generate power when demanded for the amount of time it is needed.

**Electrical circuit** – A system of conductors and devices in which current can exist.

**EMF** – A force-induced voltage in a conductor.

**Grounded** – Connected to the earth or to some conducting body that serves in place of the earth.

**Intermittent resource** – A renewable energy source used to produce energy that must be consumed when experienced. The sun and the wind are considered intermittent sources of renewable energy.

**Magnetic field** – A vector field in the neighborhood of a magnet, electric current or changing electric field in which magnetic forces are observable.

**Noncarbon** – The absence of carbon dioxide; the production of electricity without the byproduct of carbon dioxide or if carbon dioxide is captured during the production process.

**Noncarbon generation** – Power supply options that include wind, solar, geothermal, biomass and hydroelectric power.

**Ohm** – A unit of electrical resistance.

**Ohm's law** – Formula that describes the relationship of current, voltage and resistance;  $E=IR$  where E is voltage impressed on a circuit, I is current flowing in a circuit and R is circuit resistance.

**Power (P)** – The rate of doing work, or the rate at which energy is used.

**Reliability** – A measure of the ability of the system to continue operation while some lines or generators are out of service. Metrics include:

- **SAIDI** – System Average Interruption Duration Index
- **SAIFI** – System Average Interruption Frequency Index
- **CAIDI** – Customer Average Interruption Duration Index

**Renewable** – A fuel source used to produce energy that can be renewed or replaced.

**Resistance** – The property of a material that opposes the movement of electrons.

**Single phase** – A term characterizing a circuit energized by and alternating EMF; such a circuit is usually supplied through two wires (second wire is called a neutral wire).

**Solar resource** – A renewable energy producing resource (photovoltaic cell) that converts sunlight into electrical energy and is used as a power source.

**Transformational technologies** – Emerging technologies that can help enhance decarbonization of the power grid and/or provide customers with more choice and flexibility in their power supply.

**Transformer** – A mechanical device used to increase or decrease voltage by magnetic flux lines.

**Transitional technologies** — Power resources that can move the power supply toward a noncarbon future by facilitating the integration of renewable resources or behind-the-meter technologies.

**Volt** – A unit of electrical pressure or potential.

- **kV – Kilovolt** – The measure of the capability of a transmission line to deliver electricity.

**Voltage** – An electrical measurement of potential difference, electrical pressure or electromotive force.

**Watt** – A unit of power or electrical work per unit of time.

- **kW – Kilowatt** – 1,000 watts
- **MW – Megawatt** – 1,000,000 watts
- **kWh – Kilowatt hour** – 1 kilowatt of power expended for 1 hour.

**Note:** Platte River Power Authority may be shortened to Platte River but should not be referred to as PRPA

### **Sources**

Edison Electric Institute, U.S. Energy Information Administration (EIA), APPA, RMEL, Merriam-Webster, agency websites and Platte River Power Authority

### **More information**

EIA: <https://www.eia.gov/tools/glossary/?id=electricity>