

## Glossary of terms

### **Distributed energy resources (DER)**

DER includes any technologies, programs or resources deployed on the distribution system or within a customer's facility, whether in front of or behind the retail meter. DER is being used in its broadest sense to apply to:

- Energy efficiency (EE) – programs and services that help customers use less energy
- Demand response (DR) – programs and services intended to influence when customers use energy
- Distributed generation (DG) – electrical generation deployed on the distribution system or at a customer's residence or place of business (e.g., rooftop solar)
- Distributed energy storage (DES) – energy storage installed on the distribution system or at a customer's residence or place of business
- Beneficial electrification – Customer shifting from fossil fuel-based consumption to electricity (e.g., replacement of natural gas home appliances with electric or gasoline-fueled cars with electric vehicles)

### **Distribution grid**

The system that receives electricity from the transmission system and converts it to a lower voltage and distributes that energy to homes and businesses within a community.

### **Economic impact**

Impact on employment/unemployment rates, business operations and cost of living that could result from increased wholesale rates. This impact would be passed on to homeowners and businesses.

### **Energy imbalance market (EIM)**

A real-time, energy-only market in which energy generation from multiple power providers is dispatched in the next operating hour at the lowest possible cost, serving the combined customer demand in the region while respecting transmission system limitations. Participating utilities may also buy and sell energy outside of the EIM using bilateral arrangements, which allows them to maintain control over their respective generating resources and transmission grids.

### **Energy mix**

The assortment of electrical generating resources used to produce energy that is delivered to owner communities. This may include coal- and natural gas-fired, and noncarbon resources such as wind, solar and hydrogeneration.

### **Energy market**

An energy market facilitates the buying and selling of power between users and producers, based on locational marginal pricing and the availability of supply and load in the geographic region of the market.

### **Energy storage systems (ESS)**

Technology that stores energy for later use including battery (BESS), pumped hydro, compressed air and flywheel technologies.

### **Fossil fuel resources**

Includes coal- and natural gas-fired electric generating capacity.

**Inflation rate**

The rate at which the average price of goods and services in an economy increases over a period of time.

**Integrated resource plan (IRP)**

Typically performed every five years, an IRP is a critical tool created by utilities or establishing a near-term action plan and long-term trajectory that will ensure an adequate supply of reliable, environmentally responsible and financially sustainable electricity.

**Integration/system integration**

Incorporates renewable energy, distributed generation, energy storage and demand response into the electric distribution and transmission system.

**Noncarbon energy**

Energy produced by hydropower, wind, solar or other resources that do not rely on fossil fuels.

**North American Electric Reliability Corporation (NERC)**

The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. NERC is the electric reliability organization for North America, subject to oversight by the Federal Energy Regulatory Commission (FERC) and governmental authorities in Canada. The FERC, is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil.

**Rate structures**

Wholesale electricity rates charged to owner communities - formulated using methods that encourage peak customer demand reduction, the development of distributed energy resources and the use of more noncarbon energy resources.

**System reliability**

Under strict federal regulations, utilities must strive to consistently provide a safe and stable energy supply system 24/7/365. As part of the objective, Platte River abides by NERC's standard of maintaining a 15% energy reserve margin.

**Transmission grid**

The system that transports bulk energy along a network or grid of power lines to communities. It is often intended to refer specifically to high-voltage (69,000 volts or higher) electricity.

**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. Examples include battery storage, transmission/distribution grid integration hardware and software, advanced solar panels and wind turbines, or new generating resources.

**Wholesale rates**

Costs that are assessed by Platte River for producing and delivering large quantities of electric energy to its owner communities. Communities incorporate wholesale rates into the retail rates assessed to homeowners and businesses.