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DEFINITIONS OF TERMS

Capacity is the maximum capability of an energy system or component of that system to produce or move energy at or within a specific time frame. Within the context of electricity, capacity is commonly expressed in megawatts (MW), and means the maximum amount of power that can be generated at any given time. A MW is a unit of electrical power equal to 1,000 kilowatts (kW) or one million watts (W). It is generally estimated that one megawatt provides enough electricity to supply the needs of 800-1,000 homes.

Distributed energy resources (DERs) are “behind-the-meter” power generation and storage resources typically located on an end-use customer’s premises and operated for the purpose of supplying all or a portion of the customer’s electric load. **Behind-the-meter** refers to energy resources that are generally not connected on the bulk or wholesale electric power system, but are connected behind a customer’s retail access point (the meter). Such resources also may be capable of injecting power into the transmission and/or distribution system, or into a non-utility local network in parallel with the utility grid. DERs may include such technologies as solar photovoltaic (PV), combined heat and power (CHP) or cogeneration systems, microgrids, wind turbines, micro-turbines, back-up generators and energy storage, as well as demand management and energy efficiency. **Distributed generation (DG)** is a type of DER and means small, behind-the-meter electric-generating facilities located near the end consumer, such as solar panels installed on residential buildings or fuel cells located in office buildings. **Community distributed generation**, also known as **shared renewables**, allows customers who cannot site solar, small wind or other DG on their property to participate directly in off-site projects through net-metering or other valuation.

Distribution refers to the delivery of energy through power lines that connect the transmission component to the locations of end-use consumers.

Fossil fuels such as coal, natural gas and petroleum take millions of years to develop and are considered non-renewable. Burning fossil fuels results in the release of carbon dioxide and other greenhouse gases (GHGs) that trap heat in the atmosphere and contribute to climate change.

Generation refers to both the mechanical units and the process of producing electricity by transforming other types of energy, including fossil fuels, hydro, nuclear, wind, solar, etc. Generation is commonly expressed in kilowatt-hours (kWh), megawatt-hours (MWh) or gigawatt-hours (GWh). A MWh is equal to one MW of energy used continuously for one hour. A GWh is a unit of energy representing 1 billion watt-hours and is equivalent to 1 million kilowatt-hours. GWh are often used as a measure of the output of large electricity power stations.

Large-, grid- or utility-scale renewable energy facilities generate a large amount of electricity that is transmitted from one location (such as a solar energy plant) to many users through the transmission grid.



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Net metering is a system in which solar panels or other renewable energy generators are connected to a public-utility power grid and surplus power is transferred onto the grid, allowing customers to offset the cost of power drawn from the utility.

Renewable energy comes from sources that are not depleted when used, but are naturally replenished. They include wind, solar, hydro and geothermal energy.

Transmission means the high-voltage, long-distance lines (the “grid”) through which electrical power is transported from generation units to end-use customers.