Inverter - An electronic device that converts DC power from a PV array to AC power that is used in the home.

Balance of System (BOS) - Includes all components of a photovoltaic system other than the photovoltaic panels and mounting equipment.

Fixed tilt array - A photovoltaic array set in a fixed angle with respect to horizontal.

Adjustable tilt array - A variation of a fixed-tilt array that permits manual adjustment of the tilt to increase the array output for seasonal adjustment.

Tracking array - A photovoltaic array that follows the path of the sun to maximize the solar radiation incident on the PV surface.

Photovoltaic (PV) System Types:

Utility interactive photovoltaic system (Grid Tied) - A photovoltaic (PV) system with no storage that is connected to the utility grid and uses PV energy as a supplemental source of power.

Stand-alone photovoltaic system - A photovoltaic system that can either operate in utility-interactive or stand-alone mode and uses storage.

Distributed generation - Electricity that is produced at or near the point where it is used.

Interconnection agreement - A contract between a distributed generation power producer and the local electric utility that establishes the terms and conditions for the interconnection.

Net metering - A metering arrangement where any excess solar energy exported to the utility is subtracted from the amount of energy imported from the utility.

Incentives and Rebates:

Renewable Portfolio Standards (RPS) - Legislation developed by most states that specifies how much electrical generation must come from renewable energy sources. The RPS most often indicates deadlines for compliance.

Sales tax incentives - Provide an exemption from, or refund of, the state sales tax for the purchase of a renewable energy system or energy-efficiency measures.

Property tax incentives - Provide that the added value of a renewable energy system is excluded from the valuation of the property for taxation purposes.

Performance-based incentives - Provide cash payments based on the number of kilowatt-hours generated by a renewable energy systems.

Rebate programs - States, utilities and a few local governments offer rebates to promote the installation of renewable energy and energy efficiency projects.

Grant programs - States offer a variety of grant programs to encourage the use and development of renewables and energy efficiency.

Federal renewable energy tax credit - A taxpayer may claim a credit of 26% of qualified expenditures for a system that serves a dwelling unit located in the United States that is owned and used as a residence by the taxpayer. In 2021 the credit drops down to 22%. The credit expires after 2021 for residential solar, and remains at 10% for commercial solar.

Solar renewable energy credits (RECS) - Trade-able commodities from energy generated by solar. One REC is generated every time one megawatt hour (MWh) of clean, renewable electricity is produced. 1 MWh = 1,000 kWh.

Property-assessed clean energy (PACE) financing - Allows property owners to borrow money to pay for renewable energy and/or energy-efficiency improvements.

Internal rate of return - The annualized effective compounded rate of return earned on the invested capital.



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