1.3. Solar Power Generation

1.3.1. Solar Energy

Energy emitted by the sun in the form of electromagnetic energy. Solar energy is generally understood to mean any energy made available by the capture and conversion of solar radiation.

1.3.2. Solar Cell or Photovoltaic (PV) Cell

The basic photovoltaic device that generates electricity when exposed to light.

1.3.3. Absorber

Component of a solar collector for absorbing radiant energy and transferring this energy as heat into a fluid.

1.3.4. Aperture

Solar collector opening through which unconcentrated solar radiation is admitted.

1.3.5. Photovoltaic Module

Complete and environmentally protected assembly of interconnected photovoltaic cells.

1.3.6. Solar Energy System

Assembly of components that produce and supply electricity by the conversion of solar energy

1.3.7. Array

Assembly of mechanically integrated and electrically interconnected PV modules, PV panels or PV sub-arrays and its support structure. A PV array does not include its foundation, tracking apparatus, thermal control, and other such components.

1.3.8. Panel

A collection of modules mechanically fastened together, wired, and designed to provide a field-installable unit .

1.3.9. Inverter

Equipment that is used to change voltage level or waveform, or both, of electrical energy. Commonly, an inverter [also known as a power conditioning unit (PCU) or power conversion system (PCS)] is a device that changes dc input to an ac output. Inverters may also function as battery chargers that use alternating current from another source and convert it into direct current for charging batteries.

1.3.10. Interactive System

A solar photovoltaic system that operates in parallel with and may deliver power to an electrical production and distribution network. For the purpose of this definition, an energy storage subsystem of a solar photovoltaic system, such as a battery, is not another electrical production source.

1.3.11. Building Integrated Photovoltaics

Photovoltaic cells, devices, modules, or modular materials that are integrated into the outer surface or structure of a building and serve as the outer protective surface of that building.