



Frequently Asked Questions

FAQS

1 What is a photovoltaic (PV) system?

A Photovoltaic system is a power system which converts light to electricity using one or several Solar panels/modules. A PV system consists of a number of solar panel/modules that produce DC electricity in presence of sunlight, an inverter which converts DC energy to AC energy for either direct consumption, storage in battery banks or feeding into the electricity grid.

2 What are the different types of Rooftop Solar PV systems?

Off-grid: These Solar PV systems are deployed in remote locations, where access to grid electricity is limited or non-existent. The system generates power during the day, which can be stored either in batteries or in the form of heat. The power generated can either be consumed during the day simultaneously or during the night by utilizing the storage devices.

Grid-connected: Rooftop PV Systems connected and operating in tandem with grid electricity are called Grid-Connected Rooftop PV (GRPV) systems. These are deployed in urban areas with reliable access to grid. The system generates power during the day, which is deemed to be consumed first by the household or load and only in the case when generation is excess does it get sent to the grid. Owing to the reduced consumption from the grid, the consumer is compensated in the monthly electricity bill.

Hybrid (Grid-tied with storage): A hybrid system uses one or more combinations of Rooftop PV systems, grid connection and storage devices. Although expensive, such systems have the advantage of power continuity and increased reliability during either non-solar days or shortage from the grid.

3 Name the components in a Grid-connected Rooftop Solar PV System?

Grid-tied inverters: A Grid-tied inverter converts direct current (DC) into an alternating current (AC) suitable for injecting into the electricity grid. The operating range of a grid-tied inverter is typically 120 Volts RMS at 60 Hz or 240 Volts RMS at 50 Hz, based on grid requirements.

Bi-directional meter: Bi-directional meters or Net-meters are electricity meters that measure and display both the amount of consumed power and the power fed to the grid. These are used in the calculation of pay-offs or compensation to the consumer based on power generated from the rooftop system

4 How much space is required for the installation of a typical Rooftop SPV system?

A Grid-connected Rooftop Solar PV system of 1 kW peak power capacity requires about 100 square feet or 10 square meters of shadow-free area on the rooftop.

5 How much electricity does a Rooftop SPV system generate?

Typically, rooftop systems with capacity of 1 kW peak generate anywhere in the range of 4-5 units a day, which is about 120-150 units a month and 1200-1500 units annually (units in kilowatt-hour).

6 Who is eligible to install Grid-connected Rooftop SPV systems?

Any person, entity or organization owning/possessing a vacant shadow-free rooftop area and registered as a metered consumer under the purview of DISCOMs is eligible for getting SPV system installation.

HelpDesk

Please feel free to reach out to us in case of any queries. We will try our best to solve the issues swiftly.

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