

ON-Grid System



An on-grid solar system, also known as a grid-tied solar system, is a solar energy setup that is connected to the utility grid. This type of solar system is the most common and popular choice for residential, commercial, and industrial applications. Here's how an on-grid solar system works and its key features:

How On-Grid Solar Systems Work:

Solar Panels: On-grid solar systems consist of solar panels, which capture sunlight and convert it into direct current (DC) electricity.

Inverter: The DC electricity generated by the solar panels is sent to an inverter. The inverter's primary function is to convert DC electricity into alternating current (AC) electricity, which is the type of electricity used in homes and businesses.



Electricity Consumption: The AC electricity produced by the inverter can be used to power electrical appliances and equipment within the building.

Grid Connection: In an on-grid system, there is a direct connection to the utility grid. Excess electricity generated by the solar panels can flow into the grid when the system is producing more power than the building is consuming.

Metering: A bidirectional meter, often called a net meter, is installed to measure the flow of electricity between the grid and the building. When the solar system generates more electricity than is being used, the excess electricity is fed back into the grid, and the meter registers this surplus.

Credit and Compensation: Depending on local regulations and policies, the surplus electricity sent to the grid can be credited or compensated to the system owner. This can result in reduced electricity bills or financial incentives for feeding clean energy into the grid.



Key Features of ON-Grid :

- ✔ Grid Connectivity
- ✔ Reduced Electricity Bills
- ✔ Environmentally Friendly
- ✔ Cost-Effective
- ✔ No Energy Storage Required
- ✔ Net Metering

