What is a solar rooftop system?

A solar rooftop system is a combination of many components that convert sunlight into usable electricity. The components of a rooftop solar include solar panels with PV cells, solar inverter, solar panel mounting structures, AC and DC cables, AC combiner box, DC combiner box, earthing cables, and MC4 connectors.

How does a solar rooftop system work?

1

Conversion of Sunlight

A solar rooftop system works on the concept of conversion of sunlight into electricity. The phenomenon is known as the photovoltaic effect.

2

Power Generation

When sunlight falls on the PV cells in a solar panel, the sunlight is converted into electricity. The generated power is DC current. An AC combiner box is used to convert that DC power into usable AC power.

3

Electricity Supply

The generated AC electricity is fed into a bidirectional meter that supplies power to the house. It also exports excess power to the DISCOM (grid) and imports power from the grid if electricity generated by the rooftop solar system is not enough to cover the daily requirement.

How to apply for a solar rooftop subsidy?

Application Process

Under the DBT scheme, the subsidy application process has become much easier. Visit the National Portal for Rooftop Solar website and download the Sandes app from the website and install it.

Registration and Assessment

Register as a customer on the Sandes app. Once registered, a discom official will visit your home to assess technical feasibility.

Installation and Subsidy

Upon receiving payment, the installation process will commence. Afterward, the subsidy will be credited to your bank account within 30 days.

What is the solar panel for home price in India without a subsidy?

Rooftop Solar System Costs

Here's the reference about the range of solar panels for home cost without a subsidy in India:

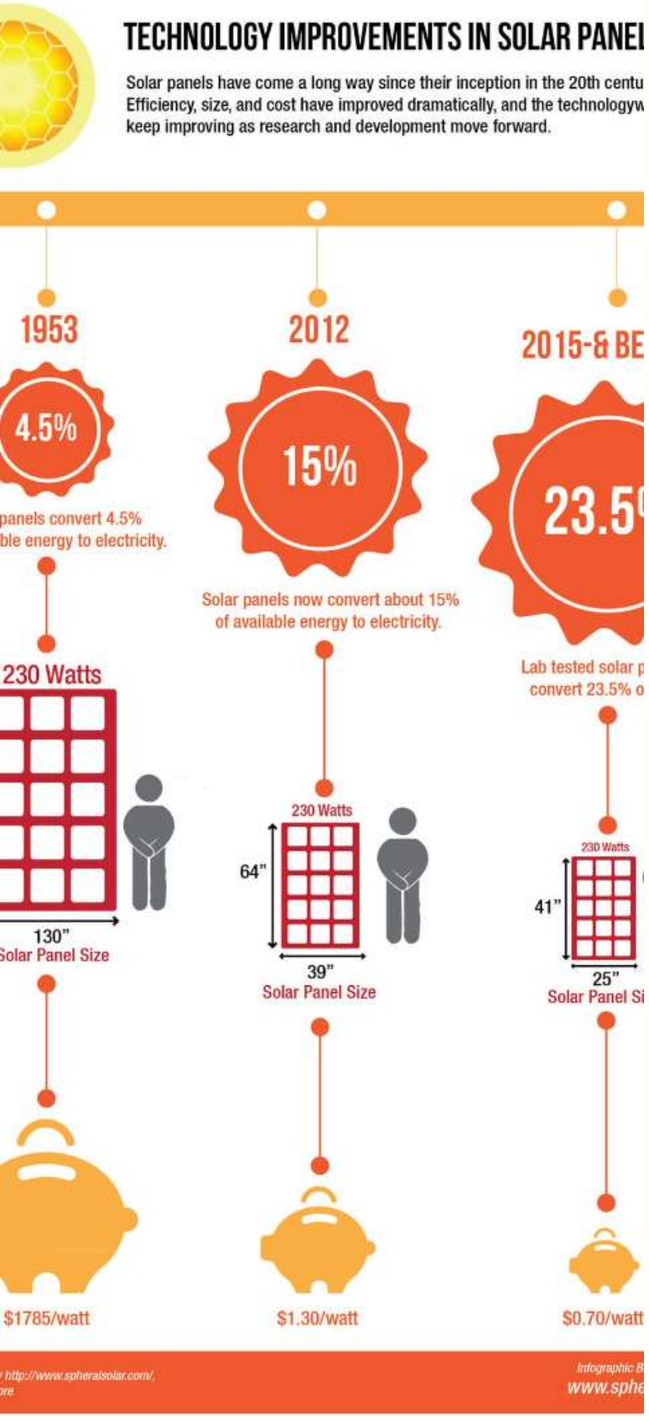
- 1 kW rooftop solar system: ₹70,000 to ₹1,10,000
- 3 kW rooftop solar system: ₹1,80,000 to ₹2,40,000
- 5 kW rooftop solar system: ₹3,00,000 to ₹4,00,000

Cost Variations

2 kW rooftop solar system: ₹1,40,000 to ₹1,80,000

4 kW rooftop solar system: ₹2,40,000 to ₹3,20,000

10 kW rooftop solar system: ₹6,00,000 to ₹8,00,000



Why should I go solar?

1 Save Money and the Planet

If you want to save money from the sun, Solar is the best investment for you. Solar allows you to save on your monthly electric bills plus it also allows you to save the planet by going green.

2 Clean and Renewable Energy

Solar energy is a true form of renewable clean energy which leads to zero pollution (air, noise, land) and emits no greenhouse gases mitigating climate change.

Is solar power safe?

1

Safe Electricity Source

The electricity produced by a solar power system is no different than the electricity you get from your electricity distribution company. Moreover, it is among the safest source of electricity consumption because it is neither hazardous nor does it release any toxic or harmful gases during production.

What do I need to install a rooftop solar system?

Qualification

All you need to qualify for a solar system is - empty space on your roof and access to your rooftop. Once the project is finalized, the team will take care of the entire plant design, installation, and maintenance.

What are the different types of Solar systems?

On-grid Solar Systems

On-grid solar systems use common solar inverters and are connected to the public electricity grid. Any excess solar power that you generate is exported to the electricity grid and one usually get paid a feed-in-tariff or credits for the energy you export.

Off-grid and Hybrid Solar Systems

Off-grid solar systems are not connected to the electricity grid and therefore require battery storage. Hybrid solar systems combine solar and battery storage in one and are now available in many different forms and configurations.

Do solar panels generate electricity even during monsoon and winter?

1

Electricity Generation in Cloudy Weather

Solar panels do produce electricity in cloudy or rainy weather, albeit with reduced efficiency. This fall in production is considered in the unit generation estimates provided for every project.

Does a rooftop solar PV generate power during a power failure?

Power Generation During Blackouts

Rooftop solar PV does not function or generate electricity during a blackout due to safety reasons. We provide the option of using a Li-ion storage battery with Solar power plants for areas which suffer from frequent power failures.

How much electricity does a solar plant produce?

Factors Affecting Production

The production level of a solar plant depends on multiple factors like radiation levels, amount of sunlight received, plant design, and quality of components.

Average Production

On average, 1 kW solar plant produces 4 units of electricity per day.

What kind of appliances can I use on Solar Power?

1

Industrial & Household Appliances

Solar Power plants are used to power all types of heavy machinery in industrial plants as well as household electrical and electronic appliances.

How do I decide what size of plant I need?

1

Factors for Sizing

The size of your Solar plant depends on your electricity consumption pattern, available shadow-free area, and solar irradiation in your area.

What is Net metering?

1

Credits for Solar Energy Owners

Net Metering is a system that gives solar energy owners credits for the power that they add to the grid.

What is the life of a rooftop solar system?

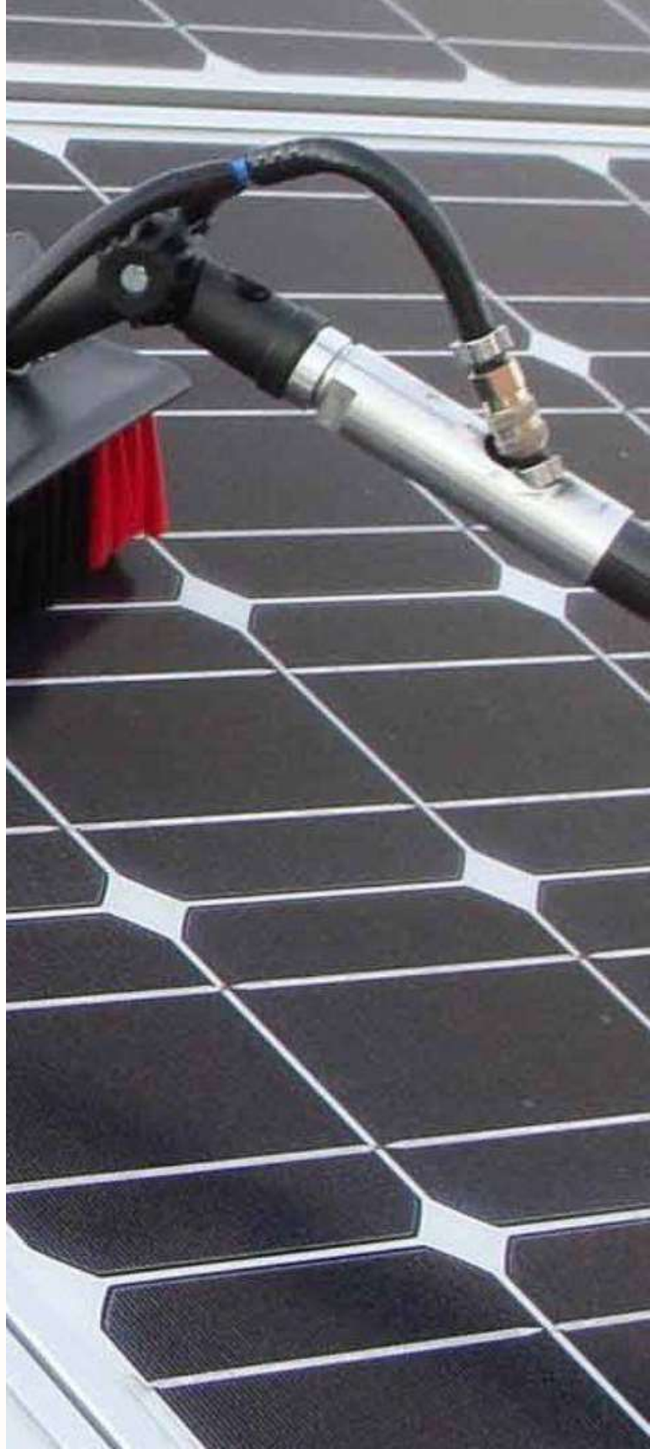
Life Span

The Solar Plant life is 25 years. The main components are solar panels and inverters. Solar panels have a warranty of 25 years and inverter warranty ranges from 5-12 years.

Do Solar Rooftop projects have a high maintenance cost?

1 Low Maintenance

A Solar Rooftop module comprises minimal moving parts and hence has very low maintenance cost.



Can Solar projects damage my roof?

1

Roof Integrity

We have a UL certification and ensure that no damage to the existing structures takes place during the installation or running of the solar plant.

Solar Plant Maintenance

It is a good practice to clean the solar panels 1-2 times a month. Use a clean wet cloth, soft nylon brush, or sponge to wipe the surface. Avoid cleaning during peak sun hours to ensure safety and effectiveness.

Roof Compatibility for Solar Projects

Versatile Installation

Solar power plants can be installed on almost any type of roofs, regardless of their shape or material type.

Brittle Roof Solutions

For brittle or compromised roofs, we provide replacement solutions as part of the solar rooftop project.

Break-even Period for Solar Projects

1 Investment Return

Rooftop solar projects achieve breakeven in 2-4 years, providing savings for the project's 25-year lifespan.

2 Subsidy Information

Subsidies for residential rooftop solar projects are released by state governments intermittently.

Uttar Pradesh Solar Subsidy

Individual House

1-3 kW: 40% subsidy

Individual House

3-10 kW: 40% up to 3 kW plus 20% for system above 3 kW

Group Housing Societies

Up to 500 kW: 20% subsidy

Solar Panel Cleaning Tips

1

Cleaning Frequency

It is recommended to clean the solar panels 1-2 times a month.

2

Cleaning Tools

Use a clean wet cloth, soft nylon brush, or sponge to wipe the surface.

3

Cleaning Precautions

Avoid cleaning during peak sun hours to ensure safety and effectiveness.