

# Total investment cost of rooftop solar battery project in India





## Overview

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The cost of establishing a 1 MW solar power plant in India typically ranges between ₹4.5 to ₹6 crore, depending on factors such as equipment quality, installation charges, and location. A 1 MW solar power plant can generate an annual revenue of around ₹1.5 to ₹1.7 crore, with profits.

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The CFO of a textile company in Rajasthan was planning a 1000 kWp rooftop solar CAPEX project. He presented a ₹3.32 crore investment proposal to the board, showing that it could deliver ₹3-4/kWh savings and a strong internal rate of return (IRR). The board liked the numbers but wanted more clarity.

The study was carried out by PricewaterhouseCoopers Pvt Ltd, India in collaboration with the Climate Investment Funds. The due diligence for this report was led by Mr. Amit Kumar (Partner-PwC India, Task Team Leader) and Mr. Abhishek Bhaskar (Energy Specialist- CIF, Co-Task Team Leader). The.

The cost of installing a solar rooftop system or solar panel can vary significantly, depending on factors such as system size, panel type, installation charges, and available government incentives. To better understand these costs, it's essential to first grasp key concepts related to solar energy.

The cost of a rooftop solar photovoltaic (PV) system depends on several key factors: 1) System Size and Type The overall size of the system, measured in kilowatts (kW) is the biggest determinant of cost. Smaller systems for residential use may be 3-10kW while large commercial rooftops can go up to.

The time it takes to pay back the initial installation cost and other investments can be short based on your electricity cost. Residential solar system installation at home pays your bills by almost 70-90%. Most homeowners invest in solar panels to reduce their dependence on power from the grid and.



The 100 kW solar panel system price in India in 2025 for on-grid DCR subsidy projects ranges between ~Rs. 40,000\* to ~Rs. 45,000\* per kW + 13.8% GST, after you receive a subsidy. Simply put, a 100 kW on-grid solar panel system in India can cost you somewhere between ~Rs. 40 lakh\* to ~Rs. 45 lakh\* +. How much does a solar rooftop system cost in India?

Let's take a 3kW solar rooftop system as an example: The cost to install a 1kW solar rooftop system in India can range from INR 45,000 to INR 85,000, depending on the system size, components, and installation requirements. Investing in a solar rooftop system provides a long-term solution for clean and renewable energy.

How much does solar PV installation cost in India?

15 For future installation, the solar rooftop PV installation cost is considered as 54,000 INR/kWp and a debt of 70% is assumed. PwC has projected the rooftop installation of projects in India with CTF money (see table on previous page). The projections are made considering the available funds and the sanctioned capacity.

How much does a solar battery cost in India?

The cost of a solar battery system depends on the system's size, type, brand, and where you live. In India, a solar system and battery can range from ₹25,000 to ₹35,000. This price varies based on size and other details. The size and storage space of the battery affect its cost. Bigger batteries are more expensive.

Is rooftop solar a sustainable and cost-effective solution in India?

As energy costs continue to rise and environmental concerns grow, more and more homeowners and businesses in India are turning to rooftop solar as a sustainable and cost-effective solution for their electricity needs.

What is 'rooftop solar scheme' & 'pm Surya Ghar muft Bijli Yojan'?

The 'Rooftop Solar Scheme' or 'PM Surya Ghar Muft Bijli Yojana' further enhances affordability by providing substantial subsidies directly into people's bank accounts, covering up to ₹78,000 of the installation costs for a 3KW solar system .

How much energy is saved by a rooftop project in India?



The project produces 150 lakh annual units of electricity and saves 19,000 tonnes of carbon emissions each year. International line of credit to support rooftop deployment in the country: The rooftop sector in India is lagging behind in meeting the annual installation targets set by the Government of India.



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### The 10 Big Milestones That Will Define India's RE Sector In 2025

MNRE data suggests that with a total of 15 GW of solar capacity coming from the PM Surya Ghar scheme and more, residential rooftop solar now comprises 16% of India's ...

### Financial Analysis of Solar Photovoltaic Power plant in India

Abstract: Solar photovoltaic (PV) power systems for both utility as well as roof mount applications growing rapidly in India. Solar power plants in India till date are mostly ground-mounted power ...



### [1 kW Solar Panel Price in India 2025](#)

Discover more about the costs of a 1 kW solar system in India, including installation and available subsidies. 1 kW Solar Panel Price in India in 2025 with Installation and Subsidy The 1 kW solar panel price in India in 2024 ...



### Powering Up Sunshine - Untapped Opportunities in India's ...

Powering Up Sunshine - Untapped Opportunities in India's Rooftop Solar Market How the Commercial and Industrial Sector Can Cut Costs and Reduce Emissions Executive Summary ...

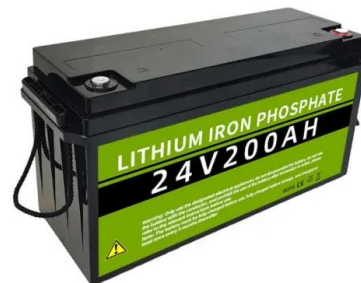


### Overview of residential rooftop solar installations in ...

Part 1 of the article provides a summary of rooftop solar (RTS) installations under the PM Surya Ghar Scheme across India, based on data from the Ministry of New and Renewable Energy (MNRE). As of January 2025, RTS ...

### [15 kW Solar System Price in India in 2025](#)

The cost of solar installation has become increasingly affordable, making it a desirable investment for those seeking to lower their electricity expenses and reduce their ...



### Rooftop Solar PV Projects In India Explained: Types, Benefits, ...

Rooftop solar PV projects in India have gained significant momentum in recent years, driven by government policies, decreasing costs of solar technology, and increasing ...



### Mapping India's Residential Rooftop Solar Potential

The MNRE-notified benchmark cost of a rooftop solar system of size 1 - 2 kW is INR 43,140 per kW (excluding GST), applicable for general category states/ UTs. The payback period for rooftop solar in India will vary based on the system ...



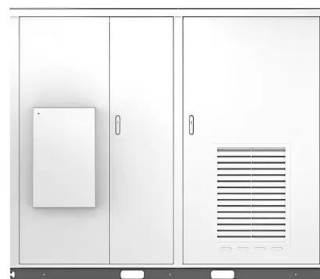
### India's Renewable Energy Journey: 485 GW By 2030 ...

India's renewable energy sector is experiencing rapid growth, driven by government initiatives and increasing investments. The country aims to have 485 GW of installed renewable energy capacity by 2030, contributing to ...

### How much does a rooftop solar PV system cost in India?

A 1 KW rooftop plant costs about Rs. 1,00,000 A battery backup would add Rs. 25,000 to this cost but is not recommended unless absolutely necessary due to losses when charging or drawing ...

Solar



### Design, simulation and economic analysis of standalone roof top solar

In this paper a detailed design of a standalone rooftop solar PV system to provide uninterrupted power supply for a hostel building is presented. It outlines the detailed ...



### [Solar Energy Rooftop Calculator India 2025](#)

The cost of installing solar rooftop under the Pradhan Mantri (PM) Solar Rooftop Scheme can vary based on the size of the system you need. Here are subsidies. Rs. 30,000 per kW up to 2 kW. Rs. 18,000 per kW for additional capacity up to ...




**TAX FREE**

**Product Model**  
HJ-ESS-215A(100KW/215KWh)  
HJ-ESS-115A(50KW/115KWh)

**Dimensions**  
1600\*1280\*2200mm  
1600\*1200\*2000mm

**Rated Battery Capacity**  
215KWH/115KWH

**Battery Cooling Method**  
Air Cooled/Liquid Cooled

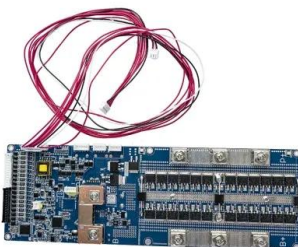


### **Rooftop Solar: Global Clean Energy Trends and Investment ...**

Potential growth areas for investment will include solar farms, domestic rooftop solar installations (the target is for a total of 90 MW of capacity), and solar farms coupled with battery energy ...

### **Solar Installed System Cost Analysis , Solar Market ...**

Solar Installed System Cost Analysis NREL analyzes the total costs associated with installing photovoltaic (PV) systems for residential rooftop, commercial rooftop, and utility-scale ground-mount systems. This work has ...



### **Exploring Solar Rooftop System Costs in India for 2024**

The cost to install a 1kW solar rooftop system in India can range from INR 45,000 to INR 85,000, depending on the system size, components, and installation requirements.



### Rooftop Solar in India

Activities such as permitting, financing and customer acquisition drive up 'soft costs' to the point where non-hardware costs make up an unreasonable portion of total costs in the US, ...



### The 10 Big Milestones That Will Define India's RE ...

MNRE data suggests that with a total of 15 GW of solar capacity coming from the PM Surya Ghar scheme and more, residential rooftop solar now comprises 16% of India's total solar capacity. 2025 should see this ...

### Cost of Solar Battery Storage: A Complete Pricing Guide

Cost of solar battery storage systems in India - Explore the upfront and long-term costs along with available financing options for residential solar batteries.



### Solar Rooftop Calculator

The Recommended capacity for Rooftop Solar Plant as per your inputs is: Calculation is indicative in nature. Actual numbers may vary. Maximum capacity for availing subsidy is 10kW. Capacity ...



### 100 kW Solar Panel System Price in India in 2025 , Explore ROI ...

The 100 kW solar panel system price in India depends on several factors, including your DISCOM charges, panel type, inverter type, mounting structure height, type of ...

114KWh ESS



CE UN38.3 MSDS

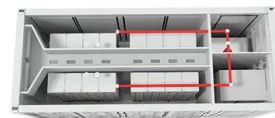


### Complete Guide to Solar Rooftop Subsidies in India ...

India is rapidly expanding its solar energy capacity, with an ambitious target of reaching 100 GW by 2022. A key part of this solar expansion is rooftop solar, which has huge potential in a country with abundant sunlight and millions of ...

### 1 MW Solar Power Plant India: Price, Specifications & More

1 Megawatt Solar Power Plant Cost & Specifications On average, the cost of a 1MW solar power plant in India ranges between Rs 4 - 5 crores. Several factors influence the ...



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