

Average wind solar storage price per 150MW in India



Overview

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State-owned hydropower producer NHPC has concluded its Tranche-X 1.2 GW wind-solar hybrid tender with an average price of INR 3.41 (\$0.039)/kWh. Adani Renewable Energy has secured the largest slice of 600 MW at INR 3.41/kWh. Other winners at this price include Mahindra Susten (240 MW) and Sprng.

Recent energy storage auctions in India reveal record-low prices, with unsubsidized standalone battery storage bids at 2.8 lacs/MW/month and solar+storage bids at 3.1–3.5 INR/kWh. Our analysis, based on implied solar and storage costs from these bids and bottom-up global cost estimates, shows that a.

This data includes ground mounted, grid connected, offsite solar projects > 5 MW at a single location. Onsite projects for captive consumption are covered in rooftop solar section. Commissioning status for the last 2 quarters is updated progressively as more data becomes available. For VGF tenders.

Solar Energy Corp of India (SECI) has concluded its tender for 2 GW of solar with 1 GW/4 GWh of storage capacity at a final average price of INR 3.52 (\$0.041)/kWh. NTPC Green Energy Ltd secured 500 MW and Hero Solar 270 MW by quoting the lowest price of INR 3.52/kWh. Sembcorp and Solarcraft (an SPV).

Abstract—We evaluate the impact of different targets and shares of wind and solar photovoltaic (PV) buildouts on the cost and value of renewable energy in the Indian electric system in 2030. We define costs as those required for installing and operating VRE generators. Value represents the avoided.

The lowest tariff discovered in wind-solar hybrid auctions came in at ₹3.07 (~\$0.0368)/kWh, 21% higher than the lowest tariff of ₹2.53 (~\$0.0304)/kWh in 2022. The tariff increase was driven by the wind turbine shortage and the rise in wind project costs. The lowest tariff of ₹3.07 (~\$0.0368)/kWh. How much does solar cost in India?

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How much does onshore wind cost in India?

Further, according to the International Renewable Energy Agency (IRENA), the onshore wind weighted average total installed costs in India fell from \$3,760 per kWh in 1990 to \$926 per kWh in 2021. Further, the weighted average LCOE of commissioned onshore wind projects in India fell from \$0.2374 per kWh in 1990 to \$0.0299 per kWh in 2021.

How much does a wind-solar hybrid cost in India?

There has been an increase in wind-solar hybrid projects to meet the round-the-clock renewable energy demand in India. The lowest tariff discovered in wind-solar hybrid auctions came in at ₹3.07 (~\$0.0368)/kWh, 21% higher than the lowest tariff of ₹2.53 (~\$0.0304)/kWh in 2022.

What is the lowest tariff for solar energy in India?

In the wind energy segment, the lowest tariff of Rs 2.84 per kWh was discovered in the GUVNL (Tranche III) 500 MW tender in July 2022. Meanwhile, in the solar energy segment, the lowest tariff of Rs 2.30 per kWh was achieved in the GUVNL (Tranche XIV) 500 MW tender in June 2022.

Which segment in India has the highest wind power capacity in 2024?

The wind energy segment in India saw the highest capacity being awarded under SECI's Tranche-XVI 1,350 MW auction in July 2024 (covering Gujarat and Karnataka). Despite the scale, tariffs for this auction remained elevated at Rs 3.6 per kWh-Rs 3.61 per kWh, reflecting cost pressures and site-specific challenges.

What is the highest wind energy tariff in India?

The overall highest tariff recorded in the past two years is Rs 3.81 per kWh witnessed in SECI's Tranche-XVII 500 MW auction in October 2024. The wind energy segment in India saw the highest capacity being awarded under SECI's Tranche-XVI 1,350 MW auction in July 2024 (covering Gujarat and Karnataka).

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Adani, Jindal Among Winners of NHPC's 1.2 GW ...

Onix Renewable, Jindal India Renewable Energy, NTPC Renewable Energy, Kolar Solar Power (Rays Power Infra), ReNew Solar Power, and Adani Renewable Energy Holding Nine (Adani Green) won NHPC 's ...

Solar Project Monthly RE Update

Tenders Issued New RFS Issued: 9,574* MW of RE tenders issued in December 2024 including 2,716 MW solar project capacity, 2,500 MW of storage capacity, 1,200 MW of ...



Storing Solar: Rise of solar-plus-battery projects in India

By Debmalya Sen, President, India Energy Storage Alliance The global rise of battery storage has often been associated with the uptake of hybrid solar projects incorporating battery components. Energy arbitrage has ...



Cost and Financing of Wind Projects , 12th edition of ...

At the 12th Edition of Wind Power in India

conference organised by Renewable Watch on July 31-August 1, 2024, Girishkumar Kadam, Senior Vice President, ICRA shared the current cost viability of wind projects and the ...

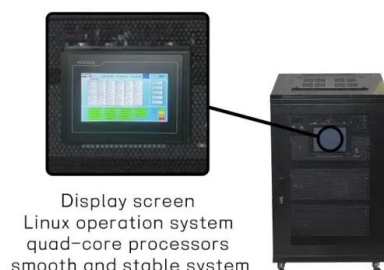


Rapid Deployment of Solar and Storage Is the Main Option ...

Storage deployment combined with solar can avoid shortages: Large-scale solar + storage deployment is the main option left to avoid power shortages, as they can be deployed much ...

Declining battery costs to boost adoption of battery energy storage

ICRA expects the recent appreciable decline in battery costs to drive the adoption of battery energy storage system (BESS) projects in India. Currently, BESS and pumped hydro ...



Display screen
Linux operation system
quad-core processors
smooth and stable system

Five Lowest Solar Auction Bids in India During 2024 ...

Here is a list of the five lowest solar tariffs discovered in auctions in 2024: #1 Waaree Group won Rewa Ultra Mega Solar's (RUMSL) auction to develop a 170 MW solar power project at the Neemuch Solar Park ...

ANALYSIS OF A 1 MW WIND FARM

The average cost of a fully installed 1 MW wind farm in India is around 6.5 crores per MW. For anyone looking to install a 1 MW turbine, this price can be a reference point.



Winning Bid In 1.5 GW SJVN Tender with Storage At ...

For instance, in April 2023, SECI awarded storage-backed 1200 MW hybrid project that saw firms quoting bids between INR 4.64 to 4.73 per Kwh. In December last year, Maharashtra State Electricity Distribution Company ...

India RE Navigator

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SECI concludes 1.2 GW/1.2 GWh solar, storage ...

Acme Solar Holdings, Hero Solar Energy, JSW Neo Energy and Pace Digitek Infra have emerged winners in Solar Energy Corp. of India's tender for setting up 1.2 GW solar with 600 MW/1.2 GWh energy storage capacity.



Solar leads India's 234 GW renewable mix; 14.3 GW added in H1 ...

India's renewable energy capacity totals 234 GW as of June 2025, with solar contributing 50%. The sector saw significant growth with 14.3 GW of utility-scale solar added in ...



Plummeting Solar+Storage Auction Prices in India ...

Our analysis, based on implied solar and storage costs from these bids and bottom-up global cost estimates, shows that a solar-plus-storage system can deliver 24/7 clean power at over 95% availability for less than 6 INR/kWh.

SECI allocates 2 GW solar, storage at average price ...

NTPC Green Energy Ltd secured 500 MW and Hero Solar 270 MW by quoting the lowest price of INR 3.52/kWh. Sembcorp and Solarcraft (an SPV of Blupine Energy) also won 150 MW each at this price.





India wraps up 1.2 GW solar, storage tender at ...

From pv magazine India SECI has concluded its latest tender for 1.2 GW of solar with 600 MW/1.2 GWh of storage capacity at a final average price of INR 3.42/kWh.

Monthly RE Update - April 2025

Source: JMK Research Installed Capacity In March 2025, about 3080 MW of Solar and 1449 MW of Wind capacity were added in the country, taking the cumulative RE ...



NHPC awards 1.2 GW of solar with storage at \$0.036/kWh

Other winners at this price include Jindal India Renewable Energy (180 MW), Kolar Solar Power (Rays Power Infra) 150 MW, and ONIX Renewable 100 MW. The balance ...

Levelized Cost of Storage for Standalone BESS Could ...

The report adopts a two-pronged approach to estimate the cost of Li-ion based MW scale battery storage systems in India. The report takes the case of solar projects in Nevada, which are coming online in 2021, with 12-13% ...



Cost and Financing of Wind Projects , 12th edition of Wind Power in India

At the 12th Edition of Wind Power in India conference organised by Renewable Watch on July 31-August 1, 2024, Girishkumar Kadam, Senior Vice President, ICRA shared ...



1 MW Solar Power Plant India: Price, Specifications

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 initial solar investment. The key component ...



Energy Storage Systems (ESS) Projects and Tenders

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Standard, Specification & Benchmark Cost , MINISTRY OF NEW ...

Specification Guidelines on "Design Specifications, Performance Guidelines, and Testing Procedure for Solar Cold Storage with Thermal Energy Storage Backup" (2 MB, PDF) ...



Grid-Scale Battery Storage: Costs, Value, and Regulatory ...

...

Market Based: We scale the most recent US bids and PPA prices (only storage adder component) using appropriate interest rate / financing assumptions Bottom-up: For battery pack prices, we ...

Cost to Set Up a Solar Farm in India: A Detailed ...

Discover the cost to set up a solar farm in India, including land, panels, inverters, and permits. Learn about government subsidies, ROI, and financing.



Tariff in solar+ESS auction 5.8% lower than previous ...

In a significant development for India's renewable energy sector, a solar project integrated with energy storage has recorded a tariff of INR3.32 per unit--5.8 per cent lower than the rate discovered in a similar tender by SECI in ...



NHPC concludes 1.2 GW wind-solar hybrid tender with a price of ...

State-owned hydropower producer NHPC has concluded its Tranche-X 1.2 GW wind-solar hybrid tender with an average price of INR 3.41 (\$0.039)/kWh. Adani Renewable ...



Lowest Wind-Solar Hybrid Tariffs in India During 2023 ...

The tariff increase was driven by the wind turbine shortage and the rise in wind project costs. Here is the list of the lowest wind-solar hybrid tariffs discovered in auctions during 2023, according to Mercom India Research:



Tariff in solar+ESS auction 5.8% lower than previous SECI tender

In a significant development for India's renewable energy sector, a solar project integrated with energy storage has recorded a tariff of INR3.32 per unit--5.8 per cent lower than ...





Monthly RE Update - September 2024

Tenders Issued New RFS Issued: 11,098 MW of RE tenders issued in September 2024. In September 2024, various entities such as SECI, SJVN, NTPC, NHPC, ...

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