

# Renewable Energy Monitor

## September 2017

### Policy



- Govt defines quality norms for solar power equipment
- Offshore wind, hydro projects may get green energy tag
- Developers, Jharkhand Government resolve solar power pricing deadlock
- No free power for poor under Saubhagya scheme, says government

### Solar



- New solar bidding guidelines will boost investors' morale
- Developers seek change in Gujarat solar policy
- 300 homes in 4 Telangana hamlets get uninterrupted solar power
- China's GCL and Mysun partner for India's rooftop solar retail play
- India to reach 20 GW of installed solar capacity by FY18-end: report
- 40 per cent of our energy needs to come from clean fuel: Coca-Cola bottler
- Fourth Partner Energy to work on 10 MW solar projects for Railways
- Telangana trounces Gujarat to become largest producer of solar power in India
- Maharashtra's Dhule district to house 500 MW solar park

### Wind



- Tamil Nadu ends wind season evacuating 1,477 million units more in 2017.
- Government puts on hold auctions for 1 GW of wind power projects

## Investment



- Sembcorp buys IDFC's 28% in Indian green arm for Rs 1,400 cr
- PE investment in wind, solar up 47% in 2017

## Policy

**Govt defines quality norms for solar power equipment.** The Ministry of New and Renewable Energy has defined quality norms for photovoltaic cells and panels in a bid to contain cheap products from hampering the solar mission. In an order dated August 30, the government said that sub-standard or defective goods that do not conform to the specified standard shall be disposed of as scrap.

These norms will be valid for a year from August 30. The government would be sampling solar panels, cells and modules that are already in the country. The norms will focus on efficiency and generation, the official added. The norms have also made it mandatory for any user of solar PV systems to make an application to the Bureau of Indian Standards and register for the use of the Standard Mark in respect of the Indian Standard. The standards have been defined for solar PV modules, films, wafers, power converters, solar inverters and storage battery.

**Offshore wind, hydro projects may get green energy tag.** The government plans to bring offshore wind energy and large hydro-electricity projects under the ambit of renewable energy, which will scale up the target of 175 GW of green power capacity by 2022. The government is on track to exceed its ambitious target of building new renewable energy capacity. Of the renewable energy installation target, 100 GW will come from solar, 60 GW from wind, 10 GW from biomass and 5 GW from small-hydro. Although large hydro-electric projects are clean, they were kept outside the ambit of renewables because they were considered part of the conventional power generation system and the ministry was earlier focussed on non-conventional energy.

**Developers, Jharkhand Government resolve solar power pricing deadlock.** Solar developers and the Jharkhand government have resolved an 18-month long deadlock over the price of solar power, with the developers agreeing to a reduced tariff of Rs 4.95 per KWH.

The problem arose after the JREDA ([Jharkhand Renewable Energy Development Agency](#)) held a mega auction of 1,200 MW in March 2016 to set up solar projects at 45 different areas across the state. Winning bids ranged from Rs 5.08 to Rs 5.48 per KWH for the larger projects of above 25 MW and Rs 5.29 to Rs 7.95 for those below. The biggest winner was ReNew

- **Developers** who won projects in a solar auction in Jharkhand in March 2016 have agreed to reduce tariffs
- **State Government** kept avoiding signing PPAs for 18 months at the discovered tariffs saying they were too high
- **Prices** are being reduced from Rs 5.08 – 5.48 per KWH to a uniform Rs 4.95 per KW for projects above 25 MW, and from Rs 5.29 - 7.95 per KWH for sub-25 MW projects
- **Total Size** of the auctioned projects has also been reduced from 1,200 MW to 684.5 MW
- **ReNew Power** which won 522 MW will now do 392 MW; Suzlon, which won 175 MW will do 130 MW
- **OPG Power Generation**, winning 124 MW will build 100 MW,
- **Adani Green Energy** which got 50 MW will build 40 MW.

Power, which secured 522 MW will limit its projects to 392 MW, Suzlon, which won 175 MW, will put up 130 MW, OPG Power Generation, winning 124 MW, will build 100 MW, Adani Green Energy, which got 50 MW, will build 40 MW all of them at the tariff of Rs 4.95 per kWh. Only Madhav Infra, building 15 MW, and Karvy Solar, building 7.5 MW, will be paid Rs 5.16 per kWh.

**No free power for poor under Saubhagya scheme, says government.** The government on 27 September 2017 said power will not be provided free of cost to any category of consumer under the recently launched Saubhagya scheme, which aims to provide electricity to all. However, under the scheme the poor families will be provided electricity connections free of cost, said the [FAQs](#) on the scheme released today by the power ministry.

Highlights	Expected Outcome
<ul style="list-style-type: none"> <li>■ Under the scheme the poor families will be provided electricity connections free of cost</li> <li>■ Other families will pay Rs 500 only, which shall be recovered by the DISCOMs in 10 installments</li> <li>■ The Saubhagya scheme was launched by Prime Minister Narendra Modi on 25 September 2017.</li> </ul>	<ul style="list-style-type: none"> <li>■ Environmental up gradation by substitution of Kerosene for lighting purposes</li> <li>■ Improvement education services</li> <li>■ Better health services</li> <li>■ Enhanced connectivity through radio, television, mobiles, etc.</li> <li>■ Increased economic activities and jobs</li> <li>■ Improved quality of life especially for women</li> </ul>

Under the scheme, other families will pay Rs 500 only, which shall be recovered by the DISCOMs in 10 installments along with electricity bills. The Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya) was launched by Prime Minister Narendra Modi on 25 September 2017 Monday with an ambition of providing electricity connections to all 4 crore left-out families by December 2018.

[The Hindu Business Line, 1 September 2017](#) | [The Economic Times, 20 September 2017](#) | [The Economic Times, 21 September 2017](#) | [The Times of India, 27 September 2017](#)



**New solar bidding guidelines will boost investors' morale.** Rating agency ICRA says the recent guidelines for solar energy bids, introduced by the ministry of new and renewable energy, is a positive development for the sector. These address, it says, some key concerns like off taker credit profile, grid curtailment and termination payments. Also, the procurer may choose to provide a state government guarantee in a legally enforceable form, for payment of energy charges and termination compensation. The guidelines provide for compensation to solar power generators in case of offtake constraints, including delay from the side of the government or procurer. Tamil Nadu and Rajasthan are among the states which have resorted to grid curtailment for renewable energy. Unlike conventional power, there is a single-part rate structure in renewable energy projects; hence, cash flows and debt serviceability is directly linked to actual generation and offtake by procurers.

**Developers seek change in Gujarat solar policy.** Solar developers have petitioned Gujarat's power regulator seeking a change in its solar policy, pointing out a major lacuna which is impeding the growth of solar rooftop capacity in the state. The policy permits only house owners themselves to set up solar plants on their roofs and is a barrier to leasing of roofs to

solar developers. Though Gujarat was a pioneer among Indian states in promoting solar energy, the petition from the DISPA (Distributed Solar Power Association), a newly formed group of developers specialising in rooftop solar plants, notes that unlike most other states, Gujarat offers net metering and other incentives only to house owners setting up solar rooftop plants, and not to solar developers. Net metering is the setting up of a system by which consumers can generate their own electricity and sell the surplus to the discom from which they were buying power earlier.

**300 homes in 4 Telangana hamlets get uninterrupted solar power.** About 300 homes in four hamlets of Nalgonda district in Telangana are getting 24-hour power supply to meet their domestic needs, thanks to solar power. The IIT (Indian Institute of Technology) Madras, Verizon Data Services India, Southern Power Distribution Company of Telangana Ltd and Rural Electrification Corporation have joined hands to install a 125 watt solar panel in the hamlets of Ramunigandla, Kesya, Jogi and Mantriya Thanda of Devarakonda mandal in the backward Nalgonda district. The IIT has developed the technology which does not require an inverter and can power a fan, a tubelight, two bulbs, a mobile charger, a power socket and a remote controller to operate the fan and tubelight. The performance of the installed systems are being monitored remotely, with data being collected via mobile phones and synchronised to a central server.

**China's GCL and Mysun partner for India's rooftop solar retail play.** Attracted by India's solar rooftop market potential, GCL System Integration Technology Co. Ltd, one of China's largest solar equipment maker, will partner with India's MYSUN to tap the retail end of the market. The plug and play model is being explored wherein the firms will finance, deliver, install, and service solar kits. These solar kits comprising of solar panels, lithium ion batteries and accessories, including fitments for installation, will be sold online. While investors have been enthused by India's ground mounted grid connected large solar parks, the firms are trying to target the retail end of the market which hasn't gained much traction. India, the world's third-largest energy consumer after the US and China, plans to set up 175 gigawatt (GW) of renewable energy capacity by 2022 as part of its global climate change commitments. Of India's plan to add 100GW of solar power capacity by 2022, 40GW is to come from rooftop projects.

**India to reach 20 GW of installed solar capacity by FY18-end: report.** India is expected to reach 20 GW of installed solar capacity by the end of the present financial year (2017-18), said a report released by the consulting firm [Bridge to India](#). According to the latest edition of India Solar Map 2017, which was released on Tuesday, India will reach a total of 20 GW of installed solar capacity by 2017-18 end. It also said that India installed 7.5 GW in the last four quarters (Q4 2016-Q3 2017) and the total utility scale solar capacity reached 16.2 GW by September. Out of the 7.5 GW capacity added in this period, 57% came from three southern states Telangana, Karnataka and Andhra Pradesh. With this, Telangana now ranks number one for commissioned capacity followed by Rajasthan and Andhra Pradesh.

**40 per cent of our energy needs to come from clean fuel: Coca-Cola bottler.** HCCB (Hindustan Coca-Cola Beverages) has said 40% of its energy requirement will be sourced from renewable and clean energy fuel from 2018. The company, which inaugurated a CNG-based boiler system and a solar power unit at its Bidadi plant on the outskirts of Bengaluru, will be opening another greenfield facility in December in Gujarat. HCCB has partnered with Atria Solar Power to procure 30 million units of solar power per annum for its two factories in the Bidadi Industrial Area. With this agreement, the factories will now meet 85% of their electricity requirements through solar power, off the grid. The newly

inaugurated boiler will get its CNG (compressed natural gas) supply from GAIL pipelines in Bidadi. GAIL is the largest state-owned natural gas processing and distribution company in India.

**Fourth Partner Energy to work on 10 MW solar projects for Railways.** Fourth Partner Energy, a distributed solar company and a full service renewable energy service company, expects to close this year with a turnover of Rs 250-300 crore, and take it up to over Rs 1,000 crore by 2020. The company said in a statement it will implement about 10 MW of rooftop projects for the Railways in Varanasi, Jabalpur and Gorakhpur. Fourth Partner Energy commenced operations in 2010 with offices in Hyderabad and Pune and now has a presence in 10 cities. The company completed over 1,350 installations across 22 States, and has installed over 50 MW. It is currently sitting on an order book of over 50 MW.

**Telangana trounces Gujarat to become largest producer of solar power in India.** Telangana is now the largest producer of solar energy in the country, after toppling its role model Gujarat. Gujarat was number one in the country in generating this form of renewable energy, but now has been relegated to the sixth spot. Statistics available in September show that Telangana, generating 2,792 MW of solar power, tops the list, followed by Rajasthan (2,219 MW). Gujarat is producing 1,384 MW of solar power.

Telangana	2,792 MW
Rajasthan	2219 MW
Andhra Pradesh	2153 MW
Tamil Nadu	1804 MW
Karnataka	1649 MW
Gujarat	1384 MW
Madhya Pradesh	1352 MW

**Maharashtra's Dhule district to house 500 Mw solar park.** The Maharashtra government, in a bid to strengthen its footing in the renewable energy segment, is planning to set up a 500 MW solar park in Dhule district. Even as the exact area for the second phase of the park is yet to be identified, a piece of land adjacent to the existing location in Dhule would be looked at to set up another 250 MW solar park.

[Business Standard](#), 12 September 2017 | [The Economic Times](#), 11 September 2017 | [The Hindu Business Line](#), 13 September 2017 | [Mint](#), 19 September 2017 | [Mint](#), 19 September 2017 | [The Financial Express](#), 21 September 2017 | [The Hindu Business Line](#), 25 September 2017 | [The Indian Express](#), 28 September 2017 | [Business Standard](#), 29 September 2017



**Tamil Nadu ends wind season evacuating 1,477 million units more in 2017.** Wind power season has come to an end this year. In the last few days the wind power generation has gone down below 500MW while the total power demand has crossed 13,000 MW. Compared to the last wind power season, Tangedco has evacuated not less than 20% more and in terms of million units, 1477.062 million units more till end of August. With better transmission lines and sub-stations, Tangedco was

able to evacuate more wind power compared to any other year and also sell more units of renewable power to other states.

**Government puts on hold auctions for 1 GW of wind power projects.** The government has put on hold auctions for 1 gigawatt of wind power projects, which were to be conducted by the SECI ([Solar Energy Corporation of India](#)) on September 19. Industry executives termed this as a relief because they would be in a better position to make a bid after the CERC ([Central Electricity Regulatory Commission](#)) decides on a petition filed by Power Grid Corporation of India on availability of bays for grid connectivity for wind or solar projects. Industry sources said most players had sought relief pertaining to grid connectivity before getting into the reverse bidding process.

[The Times of India](#), 13 September 2017 | [The Economic Times](#), 15 September 2017



## Investments

**Sembcorp buys IDFC's 28% in Indian green arm for Rs 1,400 cr.** Singapore-based Sembcorp Industries will acquire a 28 per cent stake in its Indian unit, SGI ([Sembcorp Green Infra](#)), from private equity firm [IDFC Alternatives](#) for Rs 1,410.2 crore. Following the acquisition, Sembcorp will become the sole owner of SGI. In February 2015, Sembcorp Industries acquired a 60 per cent stake in SGI for about Rs 1,060 crore, marking its entry into India's renewable energy market.

This was gradually increased to 72 per cent by mid-August 2017. The acquisition will be funded through internal funds and borrowings, with the deal expected to be completed in the first quarter of 2018. Sembcorp is buying the stake held by IDFC Private Equity Fund III.

**PE investment in wind, solar up 47% in 2017.** The renewable energy sector in India has witnessed a spike in PE (private equity) flows in 2017, despite facing challenges like plunging tariffs and policy modifications. PE flows into wind and solar power jumped 47 per cent to \$920 million involving nine deals during January 1-September 25 in 2017, compared to \$630 million across 10 deals during the corresponding period in 2016, according to Venture Intelligence data. This is the second-best year in terms of PE flows into the sector after 2015, when it attracted \$979 million across 14 deals. Some of the major deals reported in 2017 include Macquarie's \$250 million investment in Hindustan Powerprojects, \$200 million by IDFC Alternatives in First Solar, \$2500 million by JERA in ReNew Wind Power, \$108 million by Warburg Pincus in CleanMax Enviro Energy, and \$100 million by Abraaj Group in Engie Abraaj joint venture.

[The Hindu Business Line](#), 1 September 2017 | [Business Standard](#), 28 September 2017