

# Renewable Energy Monitor

## Oct-Nov 2018

### Policy



- India targeting 40% of power generation from non-fossil fuel by 2030
- Invest India wins top UN award for promoting renewable energy investment
- Cabinet nod for opening up of Solar Alliance to all UN countries
- India's renewable energy share to triple by 2023: IEA
- India to attract investments worth \$80 bn in renewable energy
- India offers renewable energy expertise to island nations
- India becomes largest renewable energy auctions market in the world
- 2018 a sobering year for renewable energy in India

### Solar



- Gujarat invites tenders for 700 MW solar projects sans ceiling tariff
  - GST shadow over solar pump scheme, target likely to be missed
  - Weaker solar radiation, poor ratings of discoms keep solar tariff above Rs 3/unit in Uttar Pradesh
  - Maha to extend CM's agri solar scheme across the State
  - India's solar power capacity addition down 44% in first half of current fiscal
  - India becomes second largest solar market; installs 4.9 GW in H1
  - Surat's solar power generation to touch 25 MW by February 2019.
  - Shapoorji Pallonji bags country's first large-scale floating solar project
  - Actis agrees to buy Essel Infra's solar power projects for Rs 5,500- 6,000 crore

## Wind



- Wind energy: Capacity addition likely to rebound after a lean FY18.
- Tangedco gets nod to float tenders for solar, wind power projects
- EIB, SBI expand cooperation in wind energy financing
- Inox wind to offer 3 MW onshore wind turbines in India
- Senvion gets 300-MW wind farm order in India

## Corporates/ Investments



- 41% rise in renewable energy sourced by companies
- Hybrid green energy tender undersubscribed by 150 MW
- NTPC to procure 1,000 MW of power from existing solar and wind projects on short-term basis
- India's largest infrastructure lender is selling its renewable energy assets to avoid defaulting on its debts

## Policy

**India targeting 40% of power generation from non-fossil fuel by 2030.** Stressing that India would generate 40 per cent of power from non-fossil fuels by 2030, Prime Minister Mr Narendra Modi on 2 October 2018 called for connecting solar energy supply across borders giving the mantra of 'One World One Sun One Grid'. India would add as much as 50 GW of non-hydro renewable energy to existing 72 GW and is successfully marching on the way to achieve the target of having 175 GW of clean energy by

2022. The prime minister was of the view that this was the right time to invest in renewable energy because there is a possibility of USD 70-80 billion business in the next four years in India.

**Invest India wins top UN award for promoting renewable energy investment.** Invest India has received the top UN Investment Promotion Award in recognition of its efforts to boost investments in the renewable energy sector in India. The award was presented by Armenian President Mr Armen Sarkissian to Mr Deepak Bagla, the CEO of Invest India, 22 October 2018 in Geneva at the inaugurations of the World Investment Forum organised by the UNCTAD ([United Nations Convention on Trade and Development](#)). A non-profit venture of the Department of Industrial Policy and Promotion, Invest India promotes sustainable investment. UNCTAD said that award recognizes "the excellence in boosting investment into sectors that will have social and economic benefits and help countries meet the SDGs (Sustainable Development Goals)".

**Cabinet nod for opening up of Solar Alliance to all UN countries.** The Union Cabinet on 1 November 2018 gave its approval for moving a resolution in the first assembly of the ISA (International Solar Alliance) to amend the framework agreement of the alliance to open up its

membership to all UN countries. The decision was taken to put solar energy on the global agenda with the universal appeal for developing and deploying solar energy.

**India's renewable energy share to triple by 2023.** According to global energy adviser, IEA ([International Energy Agency](#)), nearly 40 per cent of the world's energy needs would be fulfilled by renewable energy sources by 2023. An IEA study also suggests that the share of renewables in India's energy sector would rise to 16 per cent from the present 5.3 per cent over the next five years. The agency released its much awaited [World Energy Outlook, 2018](#), in New Delhi on 13 November 2018. The IEA observes the energy demand to grow by more than 25 per cent till 2040. Much of this growth would be driven by developing nations such as India. According to the IEA report, there will be an annual investment of more than \$2 trillion in new energy supply, till 2023.

**India to attract investments worth \$80 bn in renewable energy.** India's renewable energy space is turning out to be an attractive domain for foreign investors. In total, this sector has drawn \$6.84 billion FDI from April 2000 to June 2018. More than \$42 billion has been invested in the country's renewable energy sector since 2014, said a [report](#) by IBEF (Indian Brand Equity Foundation), after interpreting figures from the MNRE and CEA. Over the next four years, the renewable energy sector is projected to attract investments pegged at \$80 billion.

**India offers renewable energy expertise to island nations.** India is ready to share its expertise in renewable energy with small island nations, Union Power and New & Renewable Energy Minister Mr R K Singh said. India aims for 100 per cent renewable energy in Andaman & Nicobar and Lakshadweep and is ready to share expertise among other small island Nations. Singh was addressing delegates of [Know India Programme](#) from various countries, including Mauritius, Fiji, Suriname, Guyana, Trinidad & Tobago and South Africa here on 14 November 2018.

**India becomes largest renewable energy auctions market in the world.** India has become the largest market globally for auction of new renewable energy generation projects and the second-largest destination attracting clean energy investments. These are the findings of the latest Climatescope 2018 [report](#) by BNEF ([Bloomberg NEF](#)). India has secured second place in the global ranking driven by its policy thrust towards renewables and increasing investments in the clean energy sector. The country is the second-largest renewable energy investment market among all Climatescope countries, attracting \$9.4 billion in new investments in 2017. India's installed power generating capacity stood at 346 GW in June 2018, with renewables (excluding large hydro) accounting for 71 GW.

**2018 a sobering year for renewable energy in India.** The renewable energy sector in India has had a sobering year in 2018 with the number of new projects slowing down and investors finding that the sector is generating both lower power and financial returns than they expected. A Crisil report in August projected solar installations in FY19 would fall to 7,400 MW from a decadal high of 9,363 MW in FY18. The pipeline of projects has weakened as well, with the Solar Energy Corp. of India Ltd looking to cancel bids of 2,400 MW this year as tariffs were above its expectations while aggressive bidding by some firms to build portfolios has started to squeeze returns.

[The Times of India](#), 2 October 2018 | [The Economic Times](#), 23 October 2018 | [The Hindu Business Line](#), 1 November 2018 | [The Week](#), 13 November 2018 | [Business Standard](#), 14 November 2018 | [Mint](#), 15 November 2018 | [The Economic Times](#), 27 November 2018 | [Mint](#), 27 November 2018


 Solar

**Gujarat invites tenders for 700 MW solar projects sans ceiling tariff.** To encourage larger participation, the state has not capped the upper limit for tariff discovery in the auctions by removing the provision for 'ceiling tariffs'. The aforementioned auction was conducted for the second time in September, after Gujarat cancelled the first bidding process held in March when the lowest tariff discovered was Rs 2.98 per unit. The reverse auction for the 700 MW tender is expected to be completed in the final week of November. About 4 GW of recent solar bids have been scrapped due to high prices discovered.

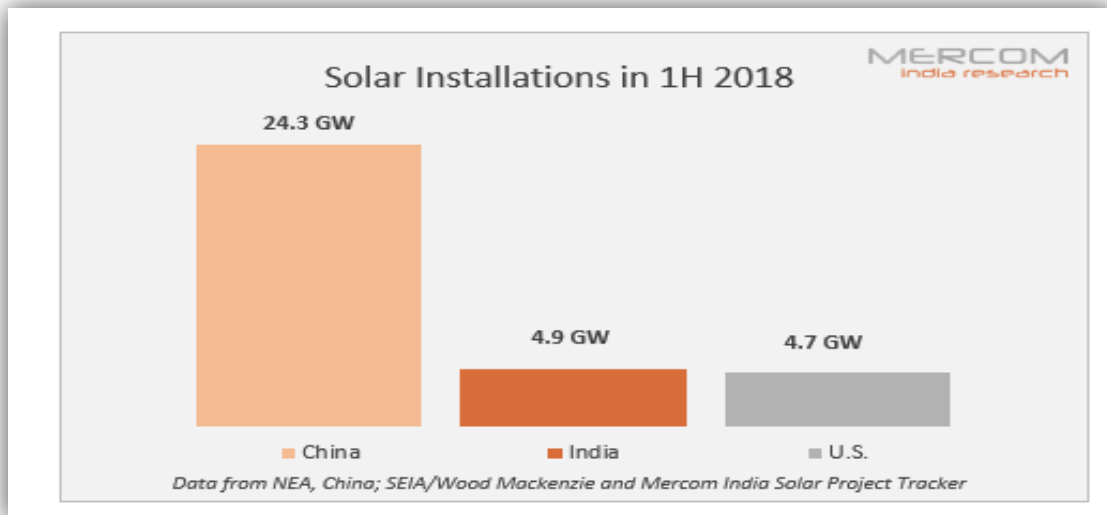
**GST shadow over solar pump scheme, target likely to be missed.** KUSUM ([Kisan Urja Suraksha Evam Utthaan Mahaabhiyan](#)), the scheme for providing solar-run irrigation pumps to farmers, is facing confusion and delay on account of the new GST regime. Because of lack of clarity on the GST rate on solar-run systems, coupled with increasing cost, it is feared that farmers will be wary of adopting cleaner irrigation systems. The scheme was announced with an outlay of Rs 1.4 trillion, including budgetary support of Rs 480 billion, over 10 years. It provides 60 per cent of the cost of the system as subsidy and the balance as a bank loan. KUSUM entails installing 2.75 million solar pumps (1.75 million standalone and 1 million grid-connected), solar power plants of 10 GW with an intermediate capacity of 0.5-2 MW, and 50,000 grid-connected tube-wells/lift irrigation and drinking water projects in rural areas.

**Weaker solar radiation, poor ratings of discoms keep solar tariff above Rs 3/unit in UP.** Tariffs in the Upneda ([Uttar Pradesh New and Renewable Energy Development Agency](#)) latest auction on 10 October 2018 fell significantly from the last one held in July, but later cancelled without assigning any reasons. The earlier auction of 1,000 MW had seen the lowest tariffs at Rs 3.48 to Rs 3.55 per unit. The auction was arbitrarily cancelled after a fortnight with many in the industry speculating that it was because the state government felt the price reached was too high. The lowest tariffs reached at the auction of 500 MW were between Rs 3.17 and Rs 3.23 per unit, seeming to justify the state government's decision.

**Maha to extend CM's agri solar scheme across the State.** After the success of a pilot project, the Maharashtra Government plans to extend the Chief Minister's agricultural solar feeder scheme in the rest of the state. The pilot project of the scheme was introduced last year in two places in Ralegan Siddhi in Ahmednagar and Kolambi in Yawatmal. Under this programme, the farmers are supplied power during the day with the help of solar generation.

**India's solar power capacity addition down 44% in first half of current fiscal.** India's solar power capacity addition is slowing down as the country added only 1,900 Megawatt in the first six months of the current financial year (April-September 2018-19), down 44 per cent as compared to the solar capacity added in the same period last year, according to consultancy firm Bridge to India. The generation capacity of 1,200 Mw added in the quarter ended September, too, was 43 per cent less than the capacity addition achieved in the corresponding quarter last fiscal.

**India becomes second largest solar market; installs 4.9 GW in H1.** The country was ranked second, following China during the January-June period, according to a report by [Mercom Communications India](#). India was the fifth-largest solar market in the world for total installations, the study, '[India Solar Market Leaderboard 1H 2018](#)', said.



Source: Mercom India Research

The top 10 large-scale developers accounted for 55 per cent market share during the reporting period, with others making up the remaining 45 per cent of the market share. There were about 300 utility-scale project developers in the country with projects of at least 5 MW or more.

**Surat's solar power generation to touch 25 MW by February 2019.** Surat, which aims at becoming the first solar city of the country, will have 25 MW of installed capacity of solar power by February 2019. It already has 15 MW of installed capacity of solar power and tops the chart in the country. In all, 4,000 solar panels of different capacities were installed in the city which produce 15 MW of solar power. The city administration had received 4,500 applications from residents and commercial establishments in the first phase until September 24. TERI ([The Energy and Resources Institute](#)) had carried out a survey 18 months ago and it found that Surat had a potential to generate about 418MW of solar energy from panels installed on rooftops.

**Shapoorji Pallonji bags country's first large-scale floating solar project.** India's first large-scale floating solar project is on its way with Shapoorji Pallonji winning the first block in Solar Energy Corporation of India's auction of 150 MW of such projects on the Rihand Dam, along the Uttar Pradesh-Madhya Pradesh border. Shapoorji Pallonji won the reverse auction for 50 MW quoting a tariff of Rs 3.29 per unit, officials said. Rihand Dam, also known as Govind Ballabh Pant Sagar, is the country's largest reservoir by volume and largest artificial lake, located on the Rihand River with its catchment area spread over Uttar Pradesh, Madhya Pradesh and Chhattisgarh.

**Actis agrees to buy Essel Infra's solar power projects for Rs 5,500- 6,000 crore.** Private equity investor Actis LLP has agreed to buy Essel Infraprojects Ltd's solar power projects for Rs 5,500 - 6,000 crore, according to two people involved in the deal process. The deal would be formally announced by December-end, one of the two people said, requesting anonymity. Essel Infra, put its solar assets on the block in early 2018 and has spent most of the year negotiating with potential buyers. Essel has 685 MW of installed capacity and under-construction projects. The renewables industry in India has witnessed a wave of consolidation as smaller companies exit the industry due to low tariffs, stiff competition and as access to cheap funds, a key criterion for success, dries up.

[Business Standard](#), 29 September 2018 | [Financial Express](#), 3 October 2018 | [The Economic Times](#), 10 October 2018 | [The Hindu Business Line](#), 15 October 2018 | [The Economic Times](#), 13 November

2018 | [The Times of India](#), 24 November 2018 | [The Times of India](#), 25 November 2018 | [The Economic Times](#), 28 November 2018 | [Mint](#), 28 November 2018



**Wind energy: Capacity addition likely to rebound after a lean FY18.**

After a weak FY18, the outlook for the wind sector has brightened in the ongoing fiscal, with capacity addition expected to increase 42% y-o-y to 2,500 MW in FY19. However, this would still be short of the 4,000-MW target set by the government for FY19, as part of the goal of building 60,000 MW wind capacity by 2022.

At 34,293 MW on 30 June 2018, India's wind capacity is the fourth highest in the world. The growth in capacity addition in FY19 would happen on the back of recent project awards. Projects of 10,000 MW capacity have been awarded by the SECI and NTPC, as well as state distribution utilities, between February, 2017 and September, 2018.

**Tangedco gets nod to float tenders for solar, wind power projects.** TNERC ([The Tamil Nadu Electricity Regulation Commission](#)) has given its approval to [Tangedco](#) to float solar and wind power tenders for the current financial year. TNERC has set the minimum tariff for solar at Rs 3 per unit and Rs 2.65 per unit for wind. The tenders are likely to be floated in December and the companies taking part in the bid will be given a year to commission their projects. The tariff is one of the lowest in the country. According to the regulator's decision, the discom will be able to launch three separate consecutive tenders for solar power capacity of 500 MW each that will be connected to the grid.

**EIB, SBI expand cooperation in wind energy financing.** The EIB ([European Investment Bank](#)) on 23 November 2018 said it will increase its support for India's wind energy projects by expanding the existing lending programmes with SBI. EIB and SBI have agreed to cooperate on financing renewable energy and providing new support for wind energy projects across India by expanding the ongoing financing initiative in the field of onshore wind projects, EIB said in a statement. With this collaboration, the promoters of wind projects in India will benefit from long-term low cost financing under the dedicated EUR 600 million renewable energy financing programme that is already supporting large-scale solar investment across the country.

**Inox wind to offer 3 MW onshore wind turbines in India.** [Inox Wind](#), one of India's leading wind energy equipment makers, said it will launch turbines with a capacity of 3 MW each, 50% more than the typical, large turbine sold in India. The new turbines, to be launched in technical collaboration with US-based [AMSC](#), will help reduce power generation costs, the company said. Inox Wind currently offers the 2 MW turbines with multiple blade and tower variants, and has a licensing agreement for the 2 MW product with [AMSC](#). Typical onshore wind power installations in India come with turbines of 1 to 2 MW. Off-shore installations can have towers of up to 5 MW. The new 3 MW turbines would come with bigger blades and higher towers, [INOX Wind](#) said.

**Senvion gets 300-MW wind farm order in India.** German wind turbine manufacturer [Senvion SA](#) has obtained a conditional order to build a 300-MW wind park in the Indian state of Gujarat. The company announced this deal brings the total turbine order book of Senvion India to above 1 GW, including supporting service contracts. The latest order came from clean energy developer Alfanar and involves work on the Bhuj wind project, which is part of the Round 5 bidding of SECI ([Solar Energy Corporation of India Limited](#)) Alfanar has contracted Senvion to supply and install 131 units

of its 2.3M130 turbines on a full engineering, procurement and construction basis. The German firm will also provide operations and maintenance (services over a period of 10 years).

[The Economic Times, 14 November 2018](#) | [The Times of India, 22 November 2018](#) | [The Economic Times, 23 November 2018](#) | [The Financial Express, 26 November 2018](#) | [Ultra News, 27 November 2018](#) | [Renewables Now, 27 November 2018](#)

### Corporates/ Investments

**41% rise in renewable energy sourced by companies.** A dramatic upsurge in demand for renewable energy from ambitious multinational companies was now shifting markets away from fossil fuels in more than 140 markets worldwide, a RE100 report said on 15 November 2018. Identifying Japan, Australia, Mexico, Turkey and Taiwan as growth hotspots the RE100 Progress and Insights Annual report [Moving to truly global impact](#), showed

a 41 per cent increase in renewable electricity sourced by RE100 companies in 2017, compared to 2016. India sees more renewable electricity being sourced.

**Hybrid green energy tender undersubscribed by 150 MW.** India's first hybrid solar and wind tender was undersubscribed by 150 MW, with only Adani Green Energy and Softbank-backed SB Energy coming forward to take a share of the pie, while other large players stayed away due to low tariffs. SECI had floated the said tender in May 2018 seeking bids for 2,500 MW hybrid projects, but the size of the tender had since been scaled down to 1,200 MW. Adani Green Energy and SB Energy bid for 600 MW and 450 MW project capacities, respectively. Industry insiders said most of the active renewable energy players such as ReNew Power, Sembcorp Energy, Acme and Hero Future Energies did not bid due to low tariff and tough conditions.

**NTPC to procure 1,000 MW of power from existing solar and wind projects on short-term basis.** NTPC has issued a tender to procure power from the existing solar photovoltaic power projects and wind power projects of cumulative capacity up to 1,000 MW. Selection of power generators will be carried out through reverse bidding. The minimum offered capacity from a single renewable energy project will be 50 MW and in multiples of 10 MW thereafter. A bidder can offer power from multiple solar and wind power projects. A single bidder must quote one tariff for all the projects that he/she intends to sell power from.

**India's largest infrastructure lender is selling its renewable energy assets to avoid defaulting on its debts.** The cash-strapped IL&FS, India's largest infrastructure lender, announced on 28 November 2018 that it had initiated the process of seeking bids for its renewable energy asset portfolio. The renewable energy assets up for sale include a number of operational and soon-to-be operational wind power plants across India with a total capacity of nearly 1,000 MW, the asset management and project development businesses for these wind power plants, and the project management business for solar power plants with a capacity of 300 MW.

[The Economic Times, 15 November 2018](#) | [The Economic Times, 21 November 2018](#) | [Mercom India, 26 November 2018](#) | [Mercom India, 27 November 2018](#) | [Business Insider, 29 November 2018](#)