

Renewable Energy Monitor July - Sept 2019

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Policy/
Regulations

Green energy to constitute over half of India's capacity addition by 2030: report. Solar and wind projects are seen constituting 440 GW of capacity out of the projected 831 GW in more than a decade, the Central Electricity Authority said in the report. All non-fossil fuel sources will form 65 per cent of the total installed capacity and contribute around 48 per cent of gross electricity generation. The share of coal in overall capacity is likely to drop to a third from about 56 per cent now. Still, the polluting fuel will continue to produce half of the country's electricity by 2030, compared with about 72 per cent now.

Renewable energy transmission projects to get 'national importance' tag. Power transmission with renewable energy projects could soon get 'national importance' tag. This will reduce the levels of approval and the cost of a project would be shared by all beneficiary states. The private sector, however, is apprehensive that instead of competitive bidding, state-owned PGCIL (Power Grid Corporation of India) will be allotted the projects. The National Tariff Policy mandates that all projects should be awarded through competitive bidding unless they are "specific category of projects of strategic importance", which are allotted to state-owned PGCIL, which owned 95 per cent of the transmission market.

Andhra Pradesh to issue recovery notices to all wind, solar power gencos. The state government of Andhra Pradesh has decided to issue recovery notices to all wind and solar power generating companies for what it terms as the loss they caused to distribution companies. In an order, the government also directed its electricity distributors to cancel short-term power purchase agreements with Lanco Infratech and Spectrum group. Gas allotted to the two projects will be reallocated to GMR Energy's Vemagiri plant. It also cancelled allotment of 5,000 acres to Greenko's wind solar hybrid project in Anantapur. The state's power distribution companies are in

poor financial health and the government has blamed renewable energy projects signed at rates higher than in other states.

Renewable energy sector received \$1.5-billion FDI in FY19. The renewable energy sector received \$1.5 billion of FDI in FY19, 20.1% higher than the previous fiscal, power minister Mr RK Singh informed Parliament on 11 July 2019. In the five-year period since FY15, FDI in the sector has been \$4.8 billion. The government had allowed 100% FDI in the sector through the automatic route. India ranks fourth among 40 countries in EY's 2019 Renewable Energy Country Attractiveness Index report.

Cabinet nod to 2,880MW hydel project in Dibang. The CCEA on 17 July 2019 gave the green light to the 2,880 MW Dibang hydropower project in Arunachal Pradesh, approving a Rs 1,600 crore pre-investment and clearance expenditure for the Rs 28,080.35 crore strategic project. The renewed focus on India's largest hydropower project, delayed in the face of local opposition, comes against the backdrop of the government's Act East policy with its message of development. The government has been pushing an economic agenda, especially with respect to long-pending infrastructure projects, keeping in mind the future geo-economics of the North Eastern region.

MNRE issues norms to implement scheme for farmers to boost solar energy. The MNRE ([Ministry of New and Renewable Energy](#)) 22 July 2019 issued guidelines for rollout of the Rs 34,422-crore [PM-KUSUM scheme](#), which would encourage farmers to generate solar power in their farms and use the clean energy to replace their diesel water pumps. The PM-KUSUM ([Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan](#)) scheme entails setting up of 25,750-MW solar capacity by 2022 with the total central financial support of Rs 34,422 crore. The Cabinet Committee on Economic Affairs (CCEA) in February approved the launch of the scheme with the objective of providing financial and water security.

HC stays Andhra's green tariff renegotiation, state shuts wind, solar plants for a few hours. Fortunes of renewable energy companies swung in two extremes on 25 July 2019 as they obtained a high court stay against Andhra Pradesh's move to renegotiate tariffs of signed contracts, but they also suffered losses as the state shut down wind and solar plants for a few hours, which officials say violates rules. Following petitions filed by the [Indian Wind Power Association](#) and individual project developers, the Andhra Pradesh High Court stayed the state's move to cut tariffs until August 22.

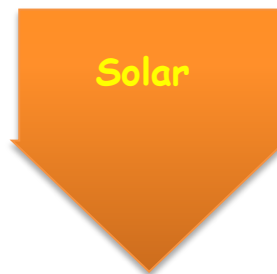
Renewable energy cost in India lowest in APAC region. India has emerged as the market leader with the lowest renewable energy cost in Asia Pacific, according to a report by research and consultancy firm [Wood Mackenzie](#). According to the report, India's LCOE using solar photovoltaic has fallen to USD 38 per MWH in 2019, 14 per cent cheaper than coal-fired power. LCOE represents the average revenue per unit of electricity generated that would be required to recover the costs of building and operating a generating plant during an assumed financial life and duty cycle.

Govt to ease land acquisition, finance for renewables to meet 450 GW target. The Ministry of New and Renewable Energy has started drafting plans to set up mega capacities and ease investment in renewables to meet the new target set by Prime Minister Mr Narendra Modi. In 2019-20, of the 3 GW target for wind power, 1.1 GW has been commissioned. For solar, 2.1 GW has been commissioned out of 7.5 GW target. The renewable energy ministry is planning to

introduce a standard PPA for projects. To sort out land-acquisition issues, the ministry plans to change the project-award system, switching the “plug-and-play” model.

PMO steps in to ease supply of credit for green energy firms. The Prime Minister’s Office has intervened to help ease credit supply to renewable energy firms, as the government moves to ensure that India’s efforts to emerge as a clean energy champion are not undermined by a lack of access to funds. The PMO has asked federal policy think tank [NITI Aayog](#) to assess the situation after debt financing for green energy projects dried up with large banks such as SBI ([State Bank of India](#)) declining to fund projects that have committed to sell power at less than Rs 3 per unit. Sanction of funds by sectoral lenders such as Power Finance Corp. (PFC) and REC Ltd has also slowed down after the former bought a controlling stake in state-run rival REC.

[The Hindu Business Line](#), 2 July 2019 | [The Economic Times](#), 3 July 2019 | [Business Standard](#), 3 July 2019 | [The Financial Express](#), 12 July 2019 | [Mint](#), 18 July 2019 | [Business Standard](#), 22 July 2019 | [The Economic Times](#), 26 July 2019 | [Business Standard](#), 29 July 2019 | [Business Standard](#), 27 September 2019 | [Mint](#), 30 September 2019



Delhi Police goes green, signs pact to implement rooftop solar energy systems. The Delhi police will set up rooftop solar energy systems in over 200 of its buildings across the city, officials said 03 July 2019. A pact in this regard was signed between SECI ([Solar Energy Corporation of India](#)) and the Delhi police. Under this, SECI- a PSU under the MNRE ([Ministry of New and Renewable Energy](#)) and the government's nodal agency for implementation of the National Solar Mission, will support the implementation of grid-connected rooftop solar photovoltaic systems on the establishments of Delhi police

Gujarat tops in solar rooftop installations. In the area of solar rooftop installations, Gujarat has stood first in the country with total 261.97 MW of installed rooftop solar capacity as on July 23, 2019. As per the Central government data, total rooftop solar installations in India is 1700.54 MW. The minister also stated that in Gujarat out of total 261.97 MW installation, 183.51 MW are subsidised installations and 78.45 MW are non-subsidised installations. The minister’s statement also said that no formal study has been done to assess the quantum of power generated through solar panels installed at rooftops of the houses, but on an average it is estimated that 1.5 million units per MW per year are generated from solar rooftop units.

NTPC to set up 5,000-MW ultra mega solar park in Gujarat, Rajasthan. NTPC is likely to sell around 60-70% of power produced on merchant sale basis and keep only around 30% on PPA basis to begin with, the company management told analysts in a meet. The UMSP comes after the not so successful launch of UMPPs (ultra mega power projects). NTPC is likely to sell around 60-70% of power produced on merchant sale basis and keep only around 30% on PPA basis to begin with, the company management told analysts in a meet. The UMSP comes after the not so successful launch of UMPPs.

Solar power company to invest over Rs 600 crore to develop 450 MW projects in Haryana. Gurugram-based Rays Power Infra a solar power company is all set to invest an amount of over Rs 1,700 crore to develop and construct accumulative of 450 MW solar projects under open access regulations selling power to commercial and industrial consumers as part of its IPP business. The company has specifically planned to invest 600 Cr in Haryana. The projects are proposed to be

located in Uttar Pradesh, Haryana, Andhra Pradesh, and Karnataka. The company has already started site activities on projects in the state of UP, Haryana and Karnataka. The company in the past has successfully developed and executed over 200 MW projects.

[Business Standard, 3 July 2019](#) | [The Hindu Business Line, 24 July 2019](#) | [The Financial Express, 20 August 2019](#) | [The Pioneer, 2 September 2019](#)

Wind

Two of nine Gujarat wind auction winners agree to cut tariffs including Singapore-based Vena Energy, have agreed to a condition that power purchase agreements will be signed only with companies that cut tariffs to match the lowest bidder. The remaining six including Inox Wind, Renew Power, Adani and France's EDF have declined. Gujarat awarded 745MW of wind projects to nine developers after an auction in May at tariffs ranging from Rs 2.80 per unit to Rs 2.95 per unit. The state distribution company asked all the winners to match the lowest tariff of Rs 2.80 quoted by Enerfra if they wanted power purchase contracts.

Less than half of SECI wind projects with May deadline operational so far. Only 452 MW of the 1000 MW of wind projects allotted by SECI ([Solar Energy Corporation of India](#)) in October 2017 to be completed by May 2019 have been commissioned so far, a source close to the development said. The SECI is the renewable energy ministry's arm responsible for holding wind and solar auctions. Winners of the auction were Singapore-based Sembcorp, AT Capital Groupbacked Orange Renewable and local players ReNew Power and Inox Wind, all of whom won capacities of around 200 to 250MW each at tariffs in the range of Rs 2.64-2.65 per unit. Adani Green Energy won 50 MW.

ReNew Power Moves HC over connectivity denial to wind projects. ReNew Power, a wind and solar energy producer, has moved the Andhra Pradesh high court, objecting to the disconnection of a part of its capacity in the state. This follows its earlier petition questioning the government's decision to renegotiate power purchase agreements. In the fresh application filed earlier this week, ReNew protested against 300 MW of its wind projects being suddenly denied connectivity by the Andhra Pradesh Transmission Co. (APTRANSCO) at its Uravakonda substation.

K.P. Energy collaborates with CLP India to develop 250.8 MW wind project at Sidhpur Site at Dwarka. K. P. Energy has signed a MoU in June 2019 with CLP India to offer wind sites in the range of 50-300MW. Based on the said MoU, the company had offered the Sidhpur Site to CLP India for its evaluation. Pursuant to the same, a Pre-Bid Collaboration and Development Agreement was signed between the company & CLP India for a wind site of approx. 300MW for SECI bid. This is first instance where K. P. Energy has tied up directly with an Independent Power Producer for windfarm development (previously such arrangements were dealt through OEMs).

[The Economic Times, 29 July 2019](#) | [The Economic Times, 15 August 2019](#) | [The Economic Times, 19 September 2019](#) | [Business Standard, 28 September 2019](#)

Corporates

GIC, ADIA invest \$329 million more in Greenko. A month after securing a \$495-million equity commitment from existing investors GIC of Singapore and ADIA ([Abu Dhabi Investment Authority](#)), Greenko Energy Holdings has received another \$329 million of funding at a \$6.5-billion enterprise valuation through a rights issue. With this round, the two principal investors would have cumulatively deployed \$2.3 billion in equity till date.

The funds will be predominantly used to facilitate Greenko's ongoing 2.4 GW storage projects and acquisitions. This will be the fourth round of capital infusion by the two, making the Hyderabad-based company the biggest recipient of foreign capital in the clean energy space in the country.

Visaka Industries to supply its hybrid solar-roofing solution, ATUM, to Air India SATS. It is expected to provide better levels of comfort to all customers and smooth access to people with reduced mobility while they board the aircraft. The ramp walkway will be established in the AISATS Hyderabad station, according to Mr Ramanathan Rajamani, CEO of the [Air India SATS](#) Airports Services. Hyderabad-based Visakha Industries said its ATUM will function as a traditional roof whilst giving 20 percent more output than conventional solar panels. It has integrated solar panels with a fibre cement base made of Vnext boards that regulates temperature with higher efficiency.

Indian Oil Corporation to invest Rs 25,000 cr in green energy. Indian Oil Corporation the nation's largest refiner and fossil fuel retailer, plans to invest Rs 25,000 crore in green energy projects, including solar and wind power plants, bio-fuels plants, and solar panels at filling stations. "Indian Oil has developed a road map and action plan to usher in clean and green energy alternatives to mitigate the risk of global warming," the company said in its annual report. Indian Oil plans to scale up its solar and wind power portfolio to 260 MW by 2020 from 216 MW now, which includes 167 MW of wind and 49 MW of solar.

Adani Green Energy to buy 205 MW Solar assets of Essel Group for Rs 1,300 crore. Subhash Chandra-promoted Essel Group has reached an agreement to sell 205 MW of operating solar assets of Essel Green Energy and Essel Infraprojects at an enterprise value of Rs 1,300 crore to Adani Group. The solar assets, located in Punjab, Karnataka and Uttar Pradesh, will be acquired by Adani Green Energy. The assets have long-term power purchase agreements (PPAs) with various state electricity distribution companies, Essel Group said. The average remaining PPA life for the portfolio is around 22 years.

NTPC, NLC India and other state-run companies to make green energy parks across the country. As part of India's energy security efforts, state-run companies present in the conventional power space such as NTPC Ltd, NLC India Ltd and Power Grid Corp. of India Ltd (PGCIL) are being roped in to build massive green energy parks. Setting up such parks will provide heft to India at the world stage specifically in the view of a rapidly evolving global energy landscape and a fundamental change in the global investment culture.

[The Economic Times, 12 July 2019](#) | [The Business Standard, 5 August 2019](#) | [The Economic Times, 19 October 2019](#) | [The Economic Times, 29 August 2019](#) | [Mint, 12 September 2019](#)