Renewable Energy Monitor

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Policy

Centre seeks guarantee for solar, wind plants connected to grid. Buoyed by the bidding success of Rewa Ultra Mega Solar, the Union government wants state governments to offer guarantees to grid connected wind and solar projects. The guarantee is one of the three tiers of payment security mechanism which is in place for the Rewa project in Madhya Pradesh and is now been planned for adoption by other states.

The suggestion is part of new tariff-based competitive bidding guidelines for grid connected wind and solar PV power projects that the Union ministry for new and renewable energy plans to develop.

Supreme Court stays trading of renewable energy certificates. The Supreme Court has stayed trading in RECs (Renewable Energy Certificates), whose prices have been reduced by the CERC. REC-generating companies had filed the petition in the court against the CERC action. The court also stayed the new price regime introduced by the CERC, said sources privy to the hearing. The petitioners had submitted the unsold stocks of close to 10 million RECs, which enable trading in renewable energy, would not be cleared at the low prices. There are around 1,200 projects in the REC mechanism with a capacity of 5,383 MW. The CERC in its order in March had computed the floor price of a solar REC at Rs 1 a unit and forbearance price at Rs 2.5 a unit. It was earlier Rs 3.5 a unit and Rs 5.8 a unit, respectively. For non-solar (wind and others), the floor price has been reduced to Rs 1 a unit and forbearance price at Rs 2.9 a unit. It was earlier in range of Rs 1.5-3.5 a unit.

India to be first in world to run all government ports on green energy. All 12 major domestic ports will soon switch to renewable energy to meet their entire power requirements, making India the first country to have all government-owned ports running on solar and wind energy. The government plans

to install almost 200 MW solar and wind power generation capacity at the ports by 2019. Almost 150 MW of this will be solar power and 50 MW wind power generation capacity. The capacity could be ramped up to 500 MW in the next few years.

REC says over 10% lending this financial year will be in renewables. As the country's energy sector increases focus on renewable options, one of the main power finance companies, REC expects its lending to the industry to grow significantly in the current financial year. In 2016-2017, eight per cent of the total lending activity was towards the non-conventional energy segment. As a percentage of the company's total outstanding loans, renewable energy was four per cent. As on March 31, the company's loan book was Rs 2.01 lakh crore. A larger chunk of the disbursements seen in the last financial year was also towards transmission and distribution.

Govt imposes one-year ban on 71 solar panel companies. The government has barred 71 firms from rooftop solar projects for a year by removing them from the panel that makes them eligible to bid. These include Amra Raja Electronics Ltd, Cleantech Synergy, Hollandia Power Solutions, IL&FS Energy Development Co and Jindal Green Technologies. The government has written to the companies saying they had failed to update details of the projects that they had executed.

IREDA listing gets cabinet approval in fresh push for renewable energy. The CCEA (Cabinet Committee on Economic Affairs) approved the listing of state run IREDA, reiterating its emphasis on green energy. The share sale will increase IREDA's equity base and help it "raise more debt resources for funding RE (renewable energy) projects", the government said in a statement. The sale will also "increase IREDA's visibility in domestic and international financial markets," the government added. Experts said that the decision to sell shares in IREDA was a sign of the Indian government's intent to move forward with its clean energy plans even as climate change goalposts are changing.

Finance Ministry rejects Rs 20,000-crore plan for local solar equipment firms. The finance ministry has rejected an ambitious Rs 20,000-crore plan to prop up local solar equipment manufacturers with incentives and subsidies to help them withstand the flood of Chinese imports, said a source close to the development. The domestic industry is concerned about rising imports of solar equipment, which rose 38 per cent to Rs 21,400 crore in 2016-17, accounting for 90 per cent of the solar cells and modules used by Indian solar developers. The ministry for new and renewable energy began working on the policy soon after an appellate body of the WTO upheld a complaint made by the US against the 'domestic content requirement' component in India's Jawaharlal Nehru National Solar Mission in September 2016.

Jharkhand Govt to provide 50% subsidy on solar rooftop installation. The Jharkhand State Government offers 50 per cent subsidy for installation of solar rooftops in households and 10 per cent subsidy to industry. Mr Arvind Kumar, Project Director, JREDA (Jharkhand Renewable Energy Development Authority) announced that the State Government is keen to provide subsidy to encourage the installation of solar roof tops for consumers , households and also for industries. JREDA is actively working on creating awareness about the use of solar, wind, bio gas and biomass-based various technologies amongst public, and also to promote the policies and programmes necessary for popularising the applications of various new and renewable energy technologies in the State.

Business Standard, 2 May 2017| Business Standard, 9 May 2017|The Economic Times, 31 May 2017|Business Standard, 1 June 2017|The Economic Times, 5 June 2017| Mint, 8 June 2017|The Economic Times, 23 June 2017| The Pioneer, 29 June 2017

Solar

Local solar manufacturers seek 'Safeguard Duty'. Badly hit by a shrinking market and idle capacity, local manufacturers of solar cells and modules have decided to approach the government again seeking to impose a 'safeguard duty' on imported equipment. They had petitioned the Ministry of Trade and Commerce in early June 2017 seeking an anti-dumping duty on solar imports but have not received any response so far. They now plan to petition the Director General of Safeguards in the same ministry to impose a duty of 10 US cents (RS 6.50) per watt on imported cells and modules. Solar manufacturers are getting desperate as they say they have been marginalised in the country's ambitious solar energy programme. In 2016-17, as much as 5,525 MW of solar projects were set up in country, but about 90% of the solar cells and modules used were imported, mainly from China, Malaysia and Taiwan.

Delhi governments Indraprastha Power Generation to install 2.5 MV rooftop solar plants. IPGCL (Indraprastha Power Generation), the power generation arm of the Delhi government, is set to install 2.5 MW rooftop solar plants over several state-owned buildings spread across the city. These solar plants are expected to generate enough energy to power 1,500 homes and save Rs 55 lakh through lower electricity bills in buildings where they would be set up. The buildings, which include five educational institutions and Dilli Haat, come under the commercial tariff category that has an average tariff of about Rs 10.8/unit. CleanMax Solar, the company which has been awarded the contract for the installations, operates on a no investment 'Opex' model, where consumers do not have to pay for installation costs and pay as per their energy consumption.

Sun shines on $300-billion global fund for clean energy. The International Solar Alliance will channel $300 billion in 10 years to promote renewable energy projects under a global mega fund for clean energy. The ISA was instituted to connect nearly 121 solar-resource-rich nations for research, low-cost financing and rapid deployment of clean energy. However, any progress in the ISA can come about only after it attains the status of a legal body under international law. For this, 15 countries need to ratify the framework agreement, making the ISA an inter-governmental body registered under the UN charter.

Sale of solar powered pumpsets on the rise. Failure of monsoon in some States, delays in getting a power connection for agriculture and government subsidies have contributed to an increase in the sale of solar-powered pumpsets in the country. According to the IPMA (Indian Pump Manufacturers' Association), sale of solar- powered pumpsets grow more than 50% in 2016-2017 compared to 2016. A farmer gets Rs 2.16 lakh as subsidy for a five HP pumpset and the scheme expired in May 2017. If the subsidy continues this financial year too, solar-powered pumpset sales might see even a 100% growth.

No uptake for rooftop solar in Indian cities. India might be playing a leadership role in bringing the world together for the International Solar Alliance, but it is struggling with the adoption of solar rooftops in its metro cities, a recent study has shown. Despite friendly policies and net metering guidelines in several states and a subsidy of 30 per cent offered by the MNRE (Ministry of New and Renewable Energy), the installation of solar rooftop systems has been dismal in leading metros in the country, especially in Chennai and Mumbai, according to the study, titled Indian Cities Slacking on Rooftop Solar, Delhi, which offers metered connections and a generation-based subsidy in its solar policy, has also failed to shine. The study, by Greenpeace India, says that while the country has made good progress in reaching its 60 GW utility scale solar electricity targets, deployment is particularly slow in the residential rooftops sector.

Solar power tariff may drop to Rs 1.5/unit on cheap credit, falling costs. Solar power developers are bullish on the clean energy and hopeful of tariff coming down to as low as Rs 1.5 per unit on falling equipment cost and cheaper credit with assured purchase pacts. Solar power tariff came down to all-time low of Rs 2.44 per unit in the auction conducted for Bhadla solar park mainly due to lower equipment and borrowing costs. The new rate of solar power is even below the average rate of coal-based power produced by state-run NTPC at Rs 3.30 per unit. The cost of solar equipment was around Rs 20 crore per MW and tariff was around Rs 15 per unit about 7-8 years ago. But with the passage of time and economies of scales at play, the cost of equipment today ranges between Rs 4-4.5 crore per MW and cost of borrowing has come down by about 4 per cent.

Solar panels, batteries may power lights and fans on 250 trains. Indian Railways will install flexible solar panels and batteries to power fans and lights on 250 local trains, giving another boost to India's rapidly growing renewable energy programme. The tender requires winning parties to first execute projects on six trains, which would then be followed by the rest. The trains would primarily run in areas where tracks are yet to be electrified. Parties that win the tenders would have to design, supply, install, test and commission 4.5 KW solar photovoltaic system with flexible panels, including 110 volts or 120 volts lithium ion battery bank on 250 trailer coaches of broad-gauge diesel electric multiple units, at an estimated value of around Rs 30 crore.

Moving with the sun: use of solar trackers picking up pace. The use of solar trackers systems that allow solar panels to move and track the sun from sunrise to sunset, as opposed to the conventional method of mounting PV panels on fixed structures has increased from 0.5 per cent of installed ground mounted capacity in India to 6-7 per cent currently. Experts estimate using solar trackers instead of fix structures increases the project cost by 6 to 12 per cent, considering that the average cost of a tracker system, depending on the type and technology used, is in the range of Rs 30-50 lakh per MW. At the same time, using trackers increases the power generation up to 16-20 per cent.

IBC Solar commissions 22.5 MWP project in India. The firm has continued its success in India with its sixth PV power plant located in Rajasthan, in the north of India. The 22.5 MWP Phalodi project was put into operation on time and handed over to the investor. The new utility-scale PV plant is located near Phalodi in Rajasthan, which is one of the federal states with the largest amount of installed solar capacity in India. The project was a cooperation between IBC Solar projects based in Mumbai and their parent company in Germany. While IBC SOLAR in India took the lead responsibility for the project, the engineering and technical supervision was done by the German parent company, who also provided some key components.

Vikram Solar achieves milestone of 1GW solar manufacturing. Globally recognized and India's leading solar energy solutions provider Vikram Solar has announced reaching 1GW of manufacturing capacity. This feat is a major contribution towards the 100 GW target set by the Indian government by 2022.

RaysExperts commissions 5.5 MW solar project for a leading PSU. Leading innovative solar solutions provider RaysExperts on 20 June 2017 announced the commissioning of its 5.5 MW solar project for an Indian Public Sector Undertaking. One of the largest solar power Engineering Procurement Construction and Development Company has projected to generate electricity worth over Rs 25 crore which will be sold to third parties via a solar PPA agreement. With RaysExperts, the company is venturing into solar energy with its first ever solar plant, which will be situated in Charanka Solar Park, Gujarat.

The Hindu Business Line, 1 May 2017| The Hindu, 6 May 2017|The Economic Times, 10 May 2017| Mint, 10 May 2017| The Economic Times, 30 May 2017| Sun & Wind Energy, 31 May 2017| Business Standard, 5 June 2017|The Economic Times, 6 June 2017| The Hindu Business Line, 5 June 2017|DNA, 13 June 2017| The Financial Express, 16 June 2017|DNA, 20 June 2017|The Economic Times, 30 June 2017

States may auction under-construction wind power projects, further lowering tariffs. The disruption caused by India's low clean energy tariffs is playing out, with rating agency Crisil cautioning that the risk profile of wind projects will increase. In a report, Crisil said that under-construction projects, as part of the FiT regime, may be put up for auction by the states to further lower tariffs. While these projects didn't have a power purchase agreement, work had started on them on the basis of the licences awarded by the states. Feed-in tariffs ensure a fixed price for wind power producers.

Also, the firms that have quoted such competitive tariffs may generate only 12% equity IRR (internal rate of return), even after assuming high PLF of 33-35% and a lower cost of borrowing at 9-9.5%, said the study.

Tamil Nadu wafts to new wind power high. State-run discom Tangedco (Tamil Nadu Generation and Distribution Corporation), touched an all-time high in wind power evacuation. Against an installed wind energy generation capacity of 8,300 MW in Tamil Nadu, Tangedco evacuated 4,600 MW. Total wind power consumption in the state was 99.46 million units. This is the highest wind energy evacuation and consumption since the state started installing windmills in the 1980s.

Record level of wind power produced in Gujarat. The state saw its highest ever levels of power generation from wind energy, thanks to high wind velocities on its coast and steadily increasing generation capacity. Wind power generation in the state reached a record 3,460MW on June 20, 2017. The rise also come as a major relief to GUVNL (Gujarat Urja Vikas Nigam), which is currently getting less from private companies under PPAs (power purchase agreements). In 2016 GUVNL had inked new PPAs for 1,000MW. Wind power generation has been accorded 'must run' status in the state. Wind projects are well integrated for power evacuation and there are no transmission constraints in Gujarat."

Developers reel under losses as Rajasthan companies shut off wind power supply. Wind power developers in Rajasthan face losses once again as state distribution companies unplug their supply from the grid, a practice known as backdown. According to WIPPA (Wind Independent Power Producers Association) official every day, 15-20% of wind power is being curtailed, on some days power has even been switched off completely by the discoms. Mr Sunil Jain, president, WIPPA, estimated the backdowns in a different way, saying, in May 2017, on average, there were five hours of backdown per MW of wind, which, given the state's capacity of around 4,000 MW, would be 20,000 hours. In practice, SLDCs often find it more convenient to use power from conventional sources if available, since it is steady and reliable.

Eastspring Investments, invests in wind energy. The $146 bn Asian investment management arm of Prudential plc, has invested an undisclosed amount in Watsun Infrabuild Private Limited, a wholly owned subsidiary of Continuum Wind Energy Limited. The transaction is likely to close by June 2017. Watsun is constructing a 150 MW wind power project in Tamil Nadu, India comprising 75 advanced Vestas V100 2.0 MW wind turbines to be commissioned in two phases of 54 MW and 96 MW each.

The capital invested by Eastspring will be used to fund the construction activities of phase II of the project.

BRPL signs MoA with PTC for procuring 100 MW wind power. Power major BRPL (BSES Rajdhani Power Limited) has signed a memorandum of agreement (MoA) with PTC (Power Trading Corporation of India Limited) for procuring 100 MW wind-power. After the move, power will be available to BRPL in around 18 months for a period of 25 years and will be available at a very competitive tariff of Rs3.46 per unit. This is the lowest tariff for wind power so far in the country. The MoA has been signed during the ongoing "Conference of Power, New and Renewable Energy and Mines Ministers of States and UT's" in the Capital under MNRE's scheme for setting up 1000 MW ISTS (Inter State Transmission System) connected wind power projects

World's first floating windfarm to take shape off coast of Scotland. The world's first floating windfarm has taken to the seas in a sign that a technology once confined to research and development drawing boards is finally ready to unlock expanses of ocean for generating renewable power. After two turbines were floated, five now bob gently in the deep waters of a fjord on the western coast of Norway ready to be tugged across the North Sea to their final destination off north-east Scotland. The £200m Hywind project is unusual not just because of the pioneering technology involved, which uses a 78-metre-tall underwater ballast and three mooring lines that will be attached to the seabed to keep the turbines upright. It is also notable because the developer is not a renewable energy firm but Norway's Statoil, which is looking to diversify away from carbon-based fuels.

The Economic Times, 4 May 2017 |The Economic Times, 5 May 2017|Mint, 29 May 2017| FTSE Global Markets, 30 May 2017| The Times of India, 31 May 2017| The Financial Express, 21 June 2017| The Times of India, 22 June 2017|The Economic Times, 27 June 2017| The Guardian, 27 June 2017

Investments

India to raise over $350 million in bonds to fund clean energy programs. India's cabinet approved a proposal to raise over $350 million from a bond sale to fund its renewable energy development schemes in a bid to achieve its ambitious clean energy goals. India's cabinet, approved raising Rs 23.6 billion ($365 million) in bonds through the IREDA (Indian Renewable Energy Development Agency) for developing additional capacity in the renewable energy sector.

The move is a part of the government's 2016-17 financial budget proposal in which it allocated 40 billion rupees ($617.81 million) to IREDA to issue government-serviced bonds.

India, China surpasses US as most attractive renewables markets: EY report. Thanks to strong government support, India has moved up to the second spot in the 'Renewable energy country attractiveness index' 2017 from the third position it held for the last two years, said a report released by Ernst & Young. The report released globally stated that China, which tops the index, and India have surpassed the US. The report also highlighted that economically viable renewable energy alternatives coupled with security of supply concerns are encouraging more countries to support a clean energy future. India continued its upward trend in the index to second position with the Government's program to build 175 GW in renewable energy generation by 2022 and to have renewable energy account for 40% of installed capacity by 2040. The country has added more than 10 GW of solar capacity in the last three years starting from a low base of 2.6 GW in 2014.

SEBI puts in place disclosure norm for green bonds. To help companies raise funds through green bonds for investment in renewable energy space, regulator SEBI (Securities and Exchange Board of India) put in place disclosure norms for issuance and listing of such bonds. The issuer of a green bond will have to make disclosure about environmental objectives of the issue of such securities in the offer documents, SEBI said.

Besides, issues would have to provide details of the systems and procedures to be employed for tracking the proceeds of the issue, including the investments made and earmarked for eligible projects in the offer documents. In addition, the issuer would have to make disclosures including use of proceeds, list of projects to which green bond proceeds have been allocated in the annual report and periodical filings made to the stock exchanges. The move is aimed at helping meet the huge financing requirements worth USD 2.5 trillion for climate change actions in India by 2030.

Mint, 16 May 2017|Reuters, 24 May 2017|The Hindu Business Line, 30 May 2017