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- Easy installation & handling
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Email: manoj.tanwar@renesola.com

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Acupuncture test
Thermal shock test
Drop test
Temperature cycling test
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1. Tenders

New Tenders

- About 2325 MW of renewable tenders are issued in September 2020, including 1,500 MW of solar BOS tender by NHDC, 600 MW of solar project development tenders by GUVNL and SECI. Another 210 MW of EPC tender was also issued by GSECL.
- Apart from this, there are about 9.78 MW of rooftop solar tenders that were issued in last month.
- Auctions were completed for 110 MW of solar projects.

New RFS Issued

Table 1.1: New RFS issued

<table>
<thead>
<tr>
<th>Tender Name</th>
<th>Technology</th>
<th>Tender scope</th>
<th>Capacity (MW)</th>
<th>Other Details</th>
<th>Bid Submission date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHDC, 1,500 MW, Solar, Madhya Pradesh, Sept 2020</td>
<td>Solar</td>
<td>BOS</td>
<td>1500</td>
<td>INR 56 million</td>
<td>12-Oct-2020</td>
</tr>
<tr>
<td>GUVNL, 500 MW, Solar, Gujarat, Phase IX, Sept 20</td>
<td>Solar</td>
<td>Project Development</td>
<td>500</td>
<td>INR 0.4 million/MW</td>
<td>28-Oct-2020</td>
</tr>
<tr>
<td>GSECL, 210 MW, Solar, Gujarat, Sept 20</td>
<td>Solar</td>
<td>EPC</td>
<td>210</td>
<td>INR 84 million</td>
<td>5-Oct-2020</td>
</tr>
<tr>
<td>SECI, 100 MW, Solar, Chhattisgarh, 50 MWh BESS, Sept 20</td>
<td>Solar + Battery Storage</td>
<td>Project Development</td>
<td>100</td>
<td>INR 70 million</td>
<td>27-Oct-2020</td>
</tr>
<tr>
<td>EESL, 7.5 MW, Rooftop Solar, Andaman and Nicobar, Sept 20</td>
<td>Rooftop Solar</td>
<td></td>
<td>7.5</td>
<td>Lot 1: INR 3.3 million Lot 2: INR 5.8 million</td>
<td>20-Oct-2020</td>
</tr>
<tr>
<td>MES, 3 MW, Solar, Leh, Sept 20</td>
<td>Solar</td>
<td></td>
<td>3</td>
<td>INR 1.5 million</td>
<td>5-Nov-2020</td>
</tr>
<tr>
<td>CEL, 2.28 MW, Rooftop Solar, Uttarakhand, Sept 20</td>
<td>Rooftop Solar</td>
<td>RESCO</td>
<td>2.28</td>
<td>INR 1.2 million/MW</td>
<td>6-Oct-2020</td>
</tr>
<tr>
<td>CoPT, 1.5 MW, Floating Solar, Kerala, Sept 20</td>
<td>Floating Solar</td>
<td>RESCO (BOOT)</td>
<td>1.5</td>
<td>INR 1.35 million</td>
<td>5-Oct-2020</td>
</tr>
</tbody>
</table>
### Re-Tendered

**Table 1.2: Re-tendered**

<table>
<thead>
<tr>
<th>Tender Name</th>
<th>Technology</th>
<th>Other Details</th>
<th>Bid Submission date</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSCL, 25 MW, Canal top solar, Karnataka, July 2020</td>
<td>Canal top solar</td>
<td>-</td>
<td>7-Oct-20</td>
</tr>
<tr>
<td>WBPDCL, 10 MW, Floating solar, West Bengal, March 2020</td>
<td>Floating Solar</td>
<td>EMD: INR 12 million</td>
<td>4-Nov-20</td>
</tr>
<tr>
<td>KSEB, 200 MW, Floating Solar, Kerala, Sep 2020</td>
<td>Floating Solar</td>
<td>EMD: INR 0.5 million/MW</td>
<td>9-Oct-20</td>
</tr>
</tbody>
</table>

### Date Extension

**Table 1.3: Date Extension**

<table>
<thead>
<tr>
<th>Tender Name</th>
<th>Technology</th>
<th>Other Details</th>
<th>Bid Submission date</th>
</tr>
</thead>
<tbody>
<tr>
<td>RITES, 1000 MW, Zonal Railways Across India, Solar</td>
<td>Solar</td>
<td>EMD: 0.4 million/ MW</td>
<td>Bid submission date extended till 8-Oct-2020</td>
</tr>
<tr>
<td>SECI, 5000 MW, Thermal+ RE, Pan India, March 2020</td>
<td>Renewable+ Thermal</td>
<td>EMD- INR 0.5 million/ MW/project</td>
<td>Bid submission date extended till 5-Nov-2020</td>
</tr>
<tr>
<td>SECI, 2.5GW, Tranche- X, Karnataka, April 2020</td>
<td>UMREPP</td>
<td>EMD- INR 0.4 million/MW/Project</td>
<td>Bid submission date extended till 3 Nov 2020</td>
</tr>
<tr>
<td>SECI, 1200 MW, Hybrid, Tranche-III, Pan India, Jan 2020</td>
<td>Hybrid</td>
<td>EMD- INR 0.5 million/MW</td>
<td>Bid submission date extended till 23 Oct 2020</td>
</tr>
<tr>
<td>SECI, 1070 MW, Solar, (Tranche III), Rajasthan, July 2020</td>
<td>Solar</td>
<td>EMD – Rs. 0.4 million /MW/project PBG – Rs. 0.8 million /MW/project</td>
<td>Bid submission date extended till 8 Nov 2020</td>
</tr>
</tbody>
</table>
Results Announced

Table 1.4: Results Announced/ Bids submitted

<table>
<thead>
<tr>
<th>Tender name</th>
<th>Status</th>
<th>Capacity tendered (MW)</th>
<th>Capacity allotted (MW)</th>
<th>Winners details</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECI, 10 MW, Solar, Rajasthan, June 2020</td>
<td>Result announced</td>
<td>10</td>
<td>10</td>
<td>REC Power Distribution Company Ltd (INR 2.58/kWh)</td>
</tr>
<tr>
<td>GUVNL, 100 MW, Solar, Raghanesda Solar Park, Phase X, Gujarat, July 2020</td>
<td>Result announced</td>
<td>100</td>
<td>100</td>
<td>SJVN Ltd. (INR 2.73/kWh)</td>
</tr>
</tbody>
</table>

Fig 2.1: State-wise installations in Solar and Wind during July and August 2020 – 787 MW

In last two monthly i.e. July and August 2020, in total about 617 MW of new solar capacity and 170 MW of new wind capacity is added in India.
Recently Commissioned projects

Table 2.1: Recently Commissioned projects

<table>
<thead>
<tr>
<th>Project Developer Name</th>
<th>Technology</th>
<th>Capacity Commissioned (MW)</th>
<th>State/UT</th>
<th>Date of Commissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rays Expert</td>
<td>Solar</td>
<td>10</td>
<td>Haryana</td>
<td>Sept-2020</td>
</tr>
<tr>
<td>INKEL Limited</td>
<td>Solar</td>
<td>6</td>
<td>Kerala</td>
<td>Sept-2020</td>
</tr>
<tr>
<td>MYSUN</td>
<td>Rooftop Solar</td>
<td>1.75</td>
<td>Rajasthan</td>
<td>Sept-2020</td>
</tr>
</tbody>
</table>

Source: JMK Research

Tata Power Signs PPA to Commission Solar Carport for Apollo Kolkata

Tata Power has announced that it has signed a Power Purchase Agreement (PPA) with Apollo Gleneagles Hospital to commission the biggest carport in Indian Health Sector. This will be the biggest carport in the state of West Bengal, with 335 kWp capacity.

NHPC signs 400-MW solar power supply deal with Chhattisgarh discom

NHPC Limited has signed a Power Sale Agreement (PSA) with Chhattisgarh State Power Distribution Company Limited (CSPDCL) for supplying 400 MW solar power under the 2000 MW ISTS grid-connected Solar Photo Voltaic Projects. As per the agreement, NHPC will supply 400 MW solar power to the state distributing company (CSPDCL) at the tariff of Rs 2.55/kWh for 25 years on a long term basis. With this NHPC shall earn trading margin @ Rs 0.07/kWh during the contract period.
3. Investments/ Deals

Table 3.1: Investment and deals in Aug. 2020

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Deal Type</th>
<th>Sector</th>
<th>Asset</th>
<th>Investor</th>
<th>Deal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RattanIndia</td>
<td>Acquisition</td>
<td>Solar</td>
<td>306 MW</td>
<td>Global Infrastructure Partners</td>
<td>INR 16,700 million ($ 227 million)</td>
</tr>
<tr>
<td>Actis</td>
<td>Partnership for asset management</td>
<td>Solar</td>
<td>400 MW</td>
<td>Wise Energy</td>
<td>-</td>
</tr>
<tr>
<td>Acme Solar</td>
<td>Acquisition</td>
<td>Solar</td>
<td>100 MW</td>
<td>Amplus Energy Solutions</td>
<td>INR 8,000 million ($ 109 million)</td>
</tr>
<tr>
<td>Fourth Partner Energy</td>
<td>Mezzanine funding</td>
<td>Solar</td>
<td>150 MW</td>
<td>Symbiotics, Triodos, ASN</td>
<td>INR 1,174 million ($16 million)</td>
</tr>
</tbody>
</table>

Source: JMK Research

Japan’s Orix to Acquire 20% Stake in Indian Renewable Developer Greenko

Orix Corporation, a Japan-based financial services group, announced that it had signed a framework agreement with renewable energy project developer Greenko Energy Holdings, to acquire approximately 20% of its share at a total value of around $980 million (~₹ 72.07 billion). As part of the agreement, the company would also add 873 MW of its wind energy portfolio in India into Greenko’s portfolio in exchange for the shares.

Mahindra Cancels Share Purchase Pact Worth Rs 105 Cr with CLP India

Mahindra & Mahindra (M&M) has announced that it has terminated a share purchase agreement with CLP India to sell the entire stake held by its step-down arm Mahindra Renewables in Neo Solren (NSPL) for Rs 104.67 crore. As per the agreement, CLP India was supposed to buy 93,15,000 equity shares of Rs 10 each in Neo Solren at Rs 112.37 per share. Mahindra & Mahindra canceled the pact citing delay in sale closure as the reason.
EverSource Capital plans to buyout Azure Power’ entire solar rooftop portfolio for around $112 million

EverSource Capital plans to buy out the entire 167 MW solar rooftop portfolio of NYSE-listed Azure Power Global for around $112 million. EverSource Capital, is an equal joint venture between private equity firm Everstone Capital and global solar project developer Lightsource BP. If the deal is concluded it may rank among the largest solar rooftop deals in India.

KKR’s India InvIT in talks to acquire FRV Solar assets

India Grid Trust (IndiGrid), the KKR-owned first Infrastructure Investment Trust (InvIT) in the Indian power sector, is in advanced discussions to acquire India portfolio of Fotowatio Renewable Ventures (FRV), the Madrid-based developer, in a deal worth Rs.750 crore. FRV, owned by Abdul Latif Jameel Energy and Environmental Services, owns a 135 megawatt (MW) solar power project in Andhra Pradesh.

Petronas plans to acquire minority stake in Tata Power Renewable Energy

Malaysia’s state-run oil and gas company, Petroliam Nasional Bhd or Petronas is looking to acquire around 10% stake in Tata Power Renewable Energy Ltd (TPREL). TPREL is a wholly-owned subsidiary of The Tata Power Company Ltd and its primary investment vehicle in clean energy space.
4. Monthly Import/Export Trends

Compared to July 2020 prices, the imports have decreased by 25% while exports have fallen by 45% in Aug 2020.

**Fig 4.1: Exports - Imports trend**

Source: Ministry of Commerce, JMK Research
Module Price Trends

Solar cells and modules - Global price trends

Compared to August 2020 prices, multi crystalline module prices have remained the same in 2020 while prices of mono PERC modules rose marginally. The prices of cells jumped substantially by over 14%.

Source: PVInfoLink, JMK Research
6. Monthly payments by SECI

The Solar Energy Corporation of India Limited (SECI) paid nearly INR 4.6 billion to developers for the purchase of solar and wind power in August 2020. Compared to July 2020, the payment disbursal decreased by 11.5%.

Fig 6.1: Monthly payments by SECI to solar and wind developers

Source: SECI JMK Research
7. Policies and Regulations

MNRE issued clarifications for PM-KUSUM Scheme

• MNRE has issued clarifications for implementation of Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM-KUSUM) Scheme.

• MNRE has stated that for Component-B and Component-C of the scheme, the state’s share of subsidy shall be minimum 30% of the applicable MNRE benchmark cost or cost discovered through tender, whichever is lower.

• MNRE has stated that the states are free to provide higher share of subsidy to reduce the beneficiary farmer contribution, however, the central financial assistance (CFA) would be limited to 30% of the applicable MNRE benchmark cost or cost discovered through tender, whichever is lower for pump capacity up to 7.5 HP.

• As per MNRE notification option is available with the farmer to install Universal Solar Pump Controller (USPC) under Component-B, for which the farmer must bear the additional cost for USPC. There is no CFA on additional cost of USPC, however, the states are free to bear the additional cost for USPC fully or partly, to facilitate the farmer to install USPC.

Also, there is no CFA for replacement of existing less efficient grid connected agriculture pumps with energy efficient ones under Component-C. MNRE highlighted that the states are free to provide additional financial support for replacement of existing pumps with energy efficient pumps.

MNRE asked Solar PV Manufacturers to submit List of Goods for Exemption from Basic Customs Duty

• MNRE has asked Solar PV Manufacturers and their Association to submit a list of high valued machinery and capital goods which are required for manufacturing of Solar PV modules from cells, Solar PV cells from wafers and thin film modules so that they can be exempted from basic custom duty (BCD).

• Earlier department of Revenue, Ministry of Finance has exempted certain capital goods from payment of BCD when imported into the country which includes capital goods required for manufacturing of
Solar PV Cells and Modules.

- Later, MNRE in consultation with Ministry of Finance and Department of Heavy Industry decided to give priority to high value capital goods by exempting them from BCD. In line of this MNRE has asked for list from manufacturers

**MNRE invited EOI for conducting evaluation of Off-GRID and De-centralized Solar PV Applications Programme Phase-III**

- MNRE has invited bids from reputed consultants/experts to undertake evaluation of Off-grid and Decentralised Solar PV Applications Programme Phase-III.

- Off-grid and Decentralized Solar PV Applications Programme is part of National Solar Mission with a target of 2 GW capacity with off-grid solar applications by the year 2022. While Phase-III is ongoing in the current financial year, many systems have already been installed or are under installation.

- The purpose of the study is to evaluate the implementation of the Programme by collecting information from state implementing agencies, beneficiaries and other stakeholders, assess performance of the applications for different stakeholders and recommend on continuation of the Programme along with required modifications in implementation process of the scheme.

- The program was initially valid until 31 March, 2020, and later it was extended to March 31, 2021. It was also decided that the projects would be installed under the renewable energy service company (RESCO) model during the extended period.

**Gujarat Govt. issues amendments to Waste Land allotment policy for wind, solar and hybrid projects**

- Gujarat government issues amendments to land allotment policy for solar, wind and solar-wind hybrid projects to make developers more accountable.

- As per these amendments, the renewable power project developers
selected by the Solar Energy Corporation of India (SECI) will have to commit to install of 50% of the total generation capacity in three years and 100% in five years. Apart from this, all the other land allotment policy conditions issued on January 25, 2019, will be applicable.

- The park developer can sub-lease it to any other project developer after developing the park or can choose to be the project developer. In either case, the park developer would be liable to pay the rent to the government.

- The amendments mention that for the renewable energy parks, the land lease tenure will be 40 years. The first five years will be for the development of the park, and 35 years for the generation of renewable energy. After 40 years, the park developer will return the land allotted on lease to the government.

- The amendments further specify that 100% of the project capacity should be installed on the land allotted on lease by the end of five years. A review of the project would be done at the end of five years.

OERC announces No CSS for consumers availing Renewable power through Open Access

- Odisha Electricity Regulatory Commission (KERC) has revised cross-subsidy surcharge, wheeling, and transmission charges applicable for consumers availing power through open access. The revised charges will be effective from 1, October 2020, and will remain in force until the issue of another order.

- Applicable Surcharge, Wheeling Charge & Transmission Charge for Open access consumer of 1MW & above as per notification is shown below: -

  - The normative transmission loss at EHT (3.0%) and normative wheeling loss for HT level (8%) are applicable for the year 2020-21.

  - Additional Surcharge: No additional surcharge over and above the Cross-Subsidy Surcharge needs to be given to the embedded licensee.

  - No Cross-subsidy surcharge are payable by the consumers availing Renewable power.

  - 20% Transmission & Wheeling charge is payable by the consumer drawing power from Renewable source excluding Co-generation & Biomass power plant.
HERC rejects claim of Cleantech solar for open access approval

- HERC in its latest hearing has rejected the proposal of Cleantech Solar for granting open access approval. The petitioner has invoked the relevant provisions of the Open Access Regulations, 2012 and the Renewable Energy Regulations, 2017.

- The petitioner has approached the Commission with the grievance that despite the generation plant being ready for generation, the required Connectivity Agreement is not being executed by the DISCOMs and Long-Term Open Access has also not been granted.

- However, the commission under various provisions has rejected the petition and said that no directions for execution of connection agreement can be passed.

HERC has allowed DISCOM to sign bilateral PPA with Amplus

- Haryana Electricity Regulatory Commission (HERC) has approved petition filed by the Haryana Power Purchase Centre’s (HPPC) for draft power purchase agreement (PPA) with Amplus Sun Solutions Private Limited for 25 years from grid interactive solar PV based power project.

- The PPA was signed for 50 MW of solar power from its project in Bhiwani. HPPC is a joint forum created and owned by the state distribution licensees, namely, Uttar Haryana Bijli Vitran Nigam (UHBVN) and Dakshin Haryana Bijli Vitran Nigam (DHBVN).

- This is a welcome move after Haryana created hurdles to open access developers in the states by delaying regulatory approvals.

<table>
<thead>
<tr>
<th>Name of the licensee</th>
<th>Cross Subsidy Surcharge EHT</th>
<th>Cross Subsidy Surcharge HT</th>
<th>Wheeling Charges applicable to HT consumers only</th>
<th>Transmission Charges for Open Access Customer (applicable for HT &amp; EHT consumers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPCODL</td>
<td>152.40</td>
<td>93.44</td>
<td>72.31</td>
<td>The Long-Term Open Access customer availing Open Access shall pay Rs.6000/MW/Day (Rs.250/MWh) and Short Term Open Access Customer shall pay charges as per applicable Regulations</td>
</tr>
<tr>
<td>NESCO Utility</td>
<td>127.64</td>
<td>57.05</td>
<td>87.35</td>
<td></td>
</tr>
<tr>
<td>WESCO Utility</td>
<td>123.67</td>
<td>71.29</td>
<td>57.91</td>
<td></td>
</tr>
<tr>
<td>SOUTHCO Utility</td>
<td>202.54</td>
<td>137.47</td>
<td>88.94</td>
<td></td>
</tr>
</tbody>
</table>
Uttarakhand Sets Net Generic Tariff for Rooftop Solar Projects

- The Uttarakhand Electricity Regulatory Commission (UERC) announced generic tariffs for rooftop and small solar projects under the Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM-KUSUM) program with a subsidy rate of 80%.

- These tariffs would apply to projects with a capacity of up to 10 kW, above 10 kW and up to 100 kW, and above 100 kW and up to 500 kW, for the financial year (FY) 2020-21.

- The ceiling tariff set by the Commission will be applicable for projects commissioned or to be commissioned on or after April 01, 2020 and will remain functional until further notice issued by the Commission.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Approved Generic Tariff (Rs./kWh) with 80% subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For Projects having capacity upto 10kW</strong></td>
<td></td>
</tr>
<tr>
<td>Gross Tariff</td>
<td>3.63</td>
</tr>
<tr>
<td>Less: Acc Dep Benefit</td>
<td>0.15</td>
</tr>
<tr>
<td>Net Tariff</td>
<td>3.48</td>
</tr>
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<td><strong>For Projects having capacity upto 10kW</strong></td>
<td></td>
</tr>
<tr>
<td>Gross Tariff</td>
<td>3.63</td>
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</table>

Source: UERC