RE monthly Update
Aug 2020

Lead Sponsors
Bringing Solar Power to the World

2.5+GW Solar PV Modules Supplied in India

Features:
- Globally reputed & recognised International brand
- Well equipped Sales & Technical support staff in India
- TIER-1 Solar PV Module manufacturer
- High conversion efficiencies modules
- Easy installation & handling
- Cost competitive
- Certified by TUV, UL, BIS and other International labs
- ISO9001, OHSAS18001, ISO 14001 Certified

Contact us:
Office: 1604, Regus, 16th Floor, Tower -B, World Trade Tower, Sector -16, Noida - 201301, UP (INDIA)
Tel.: +91- 120- 6829475
Email: manoj.tanwar@renesola.com

www.renesola.com
HIGH PERFORMANCE LITHIUM ION RANGE

Our Lithium Ion batteries are manufactured with utmost care & passes through 30+ Quality Tests before reaching you.

Features:
- High Energy Density
- Lightweight & Compact Size
- Fast & Efficient Charging
- High Temperature Performance

Upto 2000+ Life cycle

Contact us:
Office: 1604, Regus, 16th Floor, Tower B, World Trade Tower, Sector -16, Noida - 201301, UP (INDIA)
Tel.: +91-120-6829475
Email: manoj.tanwar@renesola.com
www.renesola.com

Globally reputed & recognised International brand
Well equipped Sales & Technical support staff in India
TIER-1 Solar PV Module manufacturer
High conversion efficiencies modules
Easy installation & handling
Cost competitive
Certified by TUV, UL, BIS and other International labs
ISO9001, OHSAS18001, ISO 14001 Certified

1800-2121-321 • waaree@waaree.com • www.waaree.com
Contents

1. Tenders | 5
   New RFS Issued | 5
   Re-Tendered | 6
   Date extension | 6
   Result announced | 7

2. Projects Commissioned | 7

3. Investments/ Deals | 8


5. Module Price Trends | 10

6. Monthly Payments by SECI | 11

7. Policy and Regulation | 12
1. Tenders

New Tenders

- About 1480 MW of renewable tenders are issued in August 2020, including 1070 MW of solar EPC tender by NTPC, 279 MW of solar EPC tender by EESL and another 110 MW of solar tender by GSECL. Apart from this there are about 18 MW of rooftop solar tenders that were issued in last month.
- Auctions were completed for 4.4 GW of renewable tenders. Out of these, 2.84 GW were allotted.

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>NTPC, 1070 MW, Solar (EPC), Rajasthan, Aug 2020</td>
<td>Solar</td>
<td>EPC</td>
<td>1070</td>
<td>EMD- INR 256 million</td>
<td>17-Sep-20</td>
</tr>
<tr>
<td>EESL, 279 MW, Solar, Maharashtra, Aug 2020</td>
<td>Solar</td>
<td>EPC</td>
<td>279</td>
<td>EMD- INR 0.4 million</td>
<td>25-Sep-20</td>
</tr>
<tr>
<td>BREDA, 15 MW, Solar, Bihar, Aug 2020</td>
<td>Distributed solar</td>
<td>15</td>
<td>EMD- INR 0.5 million</td>
<td>21-Sep-20</td>
<td></td>
</tr>
<tr>
<td>APDCL, 2 MW, Solar, Assam, Aug 2020</td>
<td>Distributed solar</td>
<td>2</td>
<td>EMD- INR 1.04 million</td>
<td>07-Sep-20</td>
<td></td>
</tr>
<tr>
<td>KSEBL, 1.5 MW, Solar, Kerala, Aug 2020</td>
<td>Distributed solar</td>
<td>1.5</td>
<td>EMD- INR 0.2 million</td>
<td>09-Sep-20</td>
<td></td>
</tr>
<tr>
<td>MES, 1.5 MW, Solar, Tamil Nadu, Aug 2020</td>
<td>Distributed solar</td>
<td>1.5</td>
<td>EMD- INR 0.9 million</td>
<td>14-Oct-20</td>
<td></td>
</tr>
<tr>
<td>REC, 1 MW, Solar, Punjab, Aug 2020</td>
<td>Distributed solar</td>
<td>1</td>
<td></td>
<td>09-Sep-20</td>
<td></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>UPDCC, 40 MW, Solar, Uttarakhand, Aug 2020</td>
<td>Solar</td>
<td>EMD- INR 0.5 million</td>
<td>07-Sep-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>SECI, 15MW, Floating Solar, Himachal Pradesh, July 2020</td>
<td>Floating Solar</td>
<td>EMD- INR 13.5 million</td>
<td>Bid submission date extended till 2 Sept 2020</td>
</tr>
<tr>
<td>SECI, 5 MW, Floating Solar, Tamil Nadu, July 2020</td>
<td>Floating Solar</td>
<td>EMD- 4.48 million</td>
<td>Bid submission date extended till 4 Sept 2020</td>
</tr>
<tr>
<td>SECI, 25GW, Tranche-X, Karnataka, April 2020</td>
<td>UMREPP</td>
<td>EMD- INR 0.4 million/MW/Project</td>
<td>Bid submission date extended till 29 Sept 2020</td>
</tr>
<tr>
<td>NTPC, 735 MW, Solar, BOS, Rajasthan, March 2020</td>
<td>BOS</td>
<td>EMD- NA</td>
<td>Bid submission date extended till 15 Sept 2020</td>
</tr>
<tr>
<td>SECI, 5000 MW, Thermal+ RE, Pan India, March 2020</td>
<td>Thermal + Renewable</td>
<td>EMD- INR 0.5 million/ MW/project</td>
<td>Bid submission date extended till 1 Sept 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 14 Sept 2020</td>
</tr>
<tr>
<td>REMCL, 1000MW, Solar, Pan India</td>
<td>Solar</td>
<td>EMD- INR 1 million/MW</td>
<td>Bid submission date extended till 14 Sept 2020</td>
</tr>
<tr>
<td>REMCL, 1000MW, Solar, Pan India</td>
<td>Solar</td>
<td>EMD- INR 1 million/MW</td>
<td>Bid submission date extended till 27 Oct 2020</td>
</tr>
</tbody>
</table>
## Results Announced

### Table 1.3: 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>
</table>
| NTPC, 1,200 MW, Solar, Pan India | Results Announced       | 1,200                  | 1.170                  | O2 Power (400 MW, INR 2.43/kWh)  
Tata Power (370 MW, INR 2.43/kWh)  
Azure Power (300 MW, INR 2.43/kWh)  
Amp Energy Green (100 MW, INR 2.44/kWh) |
|                                  |                         |                        |                        |                                                                                 |
| GUVNL, 700 MW, Solar, March 2020 | Results Announced       | 700                    | 700                    | Vena Energy Renewables (100 MW, INR 2.78/kWh)  
Tata Power (100 MW, INR 2.78/kWh)  
Renew Solar (200 MW, INR 2.79/kWh)  
SJVN Ltd. (100 MW, INR 2.80/kWh)  
TEQ Power Pvt. Ltd. (200 MW, INR 2.81/kWh) |
|                                  |                         |                        |                        |                                                                                 |
| SECI, 2,500 MW, Blended Wind So- | Result Announced        | 2,500                  | 970                    | Vena Energy Renewables (160 MW, INR 2.99/kWh)  
JSW Solar (810 MW, INR 3.00/kWh)    |
| lar, Tranche-IX                  |                         |                        |                        |                                                                                 |

## 2. Projects Commissioned

### 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>SunSource Energy</td>
<td>Rooftop Solar</td>
<td>6</td>
<td>Rajasthan</td>
<td>August 2020</td>
</tr>
<tr>
<td>Amplus Solar</td>
<td>Solar</td>
<td>50</td>
<td>Chhattisgarh</td>
<td>July 2020</td>
</tr>
<tr>
<td>CleanMax</td>
<td>Solar-Wind Hybrid</td>
<td>15</td>
<td>Karnataka</td>
<td>July 2020</td>
</tr>
</tbody>
</table>
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>
<th>Stake Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acme Solar Holdings Ltd.</td>
<td>Acquisition</td>
<td>Solar</td>
<td>400 MW</td>
<td>Actis</td>
<td>INR 2300 cr.</td>
<td>100%</td>
</tr>
<tr>
<td>C&amp;S Electric</td>
<td>Acquisition</td>
<td>Energy</td>
<td></td>
<td>Siemens India</td>
<td>NA</td>
<td>100%</td>
</tr>
<tr>
<td>First Solar</td>
<td>Acquisition</td>
<td>Solar</td>
<td>40 MW</td>
<td>Ayana Renewable Power</td>
<td>NA</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Greenko Signs MoU With NTPC to Explore RE and Storage Solutions**

Greenko has signed Memorandum of understanding with NTPC Vidyut Vyapar Nigam, a wholly-owned subsidiary of NTPC. The objective of the partnership is to explore the possibility of development of renewable energy-based round-the-clock, flexible and dispatchable power supply offerings based on the integration of RE sources and pumped storage projects.

**ReNew Power, UNEP ink pact for better clean energy access, higher efficiency**

ReNew Power will partner with UNEP’s District Energy in Cities Initiative as an implementation partner for renewable energy installations across India with the aim of shifting the heating and cooling sector to an energy efficient one. The partnership will also implement solar off-grid projects, studies, and assessments.
Compared to June 2020 prices, the imports have increased by 180% while exports have fallen by 24.4% in July 2020.

Source: Ministry of Commerce, JMK Research
5. Module Price Trends

Solar cells and modules - Global price trends

Compared to July 2020 prices, multi crystalline module prices have fallen by 0.3% in August 2020 while prices of mono PERC modules and multi cell have increased by 0.8% and 5.5% respectively.

Fig 5.1: Solar Cells and Module price trends

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

The Solar Energy Corporation of India Limited (SECI) paid nearly INR5.2 billion to developers for the purchase of solar and wind power in July 2020. Compared to June 2020, the payment disbursal increased by ~18%.

Fig 7.1: Monthly payments by SECI to solar and wind developers

Source: SECI JMK Research
7. Policies and Regulations

MoP waived of inter-state transmission charges and losses for Solar and Wind Projects

- Ministry of Power (MoP) in its latest order has decided that no inter-state transmission charges and losses will be levied on transmission of the electricity generated from Solar, Wind or Solar-Wind hybrid projects commissioned till 30 June, 2023 for a period of 25 years from the date of commissioning of the power plants.

- The waivers also applicable for Solar PV power plants commissioned under MNRE’s Central Public Sector Undertaking (CPSU) Scheme Phase-II and Solar PV power plants commissioned under SECI Tender for manufacturing linked capacity scheme.

- This Order shall be applied prospectively i.e. from the date of issue of Order.

MNRE approves Scheduled commissioning date time extension for RE Projects considering pandemic effects

- MNRE with its notification dated 13 August 2020 has granted time extension in scheduled commissioning date of renewable energy (RE) projects considering disruption due to lockdown due to COVID-19.

- All RE projects which are developed through RE implementing agencies designated by MNRE has been given blanket time extension of 5 months from 25th March 2020 to 24th August 2020 according to this order.

- All RE implementing agencies of MNRE will treat lockdown due to Covid-19 as Force Majeure. The timelines for intermediate milestones of a project may also be extended within the extended time provided for commissioning.

- State Renewable Energy Departments may also treat lockdown due to COVID-19, as Force Majeure and may consider granting appropriate time extension on account of such lockdown.
CERC approves Green Term ahead market contracts on IEX

CERC agreed with IEX’s proposal to reduce the minimum capacity from 1 MW to 220 kW and tick size from 1 MW to 0.1 MW.

- Central electricity regulatory commission (CERC) with its order dated 17 August 2020 approved the proposal of Indian Energy Exchange (IEX) to introduce Green Term Ahead Market (G-TAM) subject to compliance of the directions given in the same Order.

IEX has envisaged following benefits from introduction of GTAM contracts

- GTAM platform will provide new avenue to RE merchant capacity to sell power.
- It will reduce burden on renewable energy rich States to absorb all RE generated within the State.
- GTAM Contracts will enable obligated entities to procure renewable power at competitive prices at the power exchanges and help meet RPOs.
- RE sellers and buyers will get more options to sell/buy renewable power.
- Small participants (OA/CPP) can buy green power at competitive rates to meet their RPO as well as energy requirement.

As per IEX following eligibility conditions for buyer and seller has been proposed to participate in GTAM contracts

- Solar energy sellers shall be eligible to trade in ‘Solar Green Term Ahead Contract’ and non-solar RE seller shall be eligible to trade in ‘Non-Solar Green Term Ahead Contract’
- RLDCs/SLDCs may issue NOC/standing clearance (may be called ‘Green NOC’) indicating the type of RE generator. Discoms may get Green NOC (solar/non-Solar) for selling renewable energy from the respective SLDCs.
- Eligibility of RE sellers shall be ascertained at the time of registration at the power exchange based on NOC/standing clearance issued by RLDC/SLDC, as applicable.
- All the entities which are eligible to procure power through open access shall be eligible to participate in GTAM as buyer.
- Buyers shall be eligible to participate in GTAM based on the same NOC issued for DAM (Day Ahead Market)/Intra-Day market by SLDC. No separate NOC will be required for the buyers.
IEX has proposed following types of GTAM contracts

<table>
<thead>
<tr>
<th>Market Type</th>
<th>Green Intra Day contracts</th>
<th>Green day Ahead Contingency Contracts</th>
<th>Green Daily Contracts</th>
<th>Green weekly contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract available for trading</td>
<td>15-minute</td>
<td>15-minute</td>
<td>15-minute</td>
<td>15-minute</td>
</tr>
<tr>
<td>Matching</td>
<td>Quantity (MW) and price (Rs./MWh)</td>
<td>Quantity (MW) and price (Rs./MWh)</td>
<td>Energy (MWh)</td>
<td>Energy (MWh)</td>
</tr>
<tr>
<td>Delivery Day, (T- Trading day)</td>
<td>T</td>
<td>T+1</td>
<td>T+2 to T+10</td>
<td>T+2 to T+10</td>
</tr>
<tr>
<td>Trading hours</td>
<td>00:30 hrs to 20:00 hrs</td>
<td>15:00 hrs to 23:00 hrs</td>
<td>13:00 hrs to 17:00 hrs</td>
<td>Friday and Saturday</td>
</tr>
<tr>
<td>Trading cycle</td>
<td>Continuous trading</td>
<td>Continuous trading</td>
<td>Continuous trade or uniform price step open auction</td>
<td>Continuous trade or uniform price step open auction</td>
</tr>
<tr>
<td>Quantity variation</td>
<td>Zero quantity variation allowed</td>
<td>Zero quantity variation allowed</td>
<td>Downward variation up to 15% of Energy Traded.</td>
<td>Downward variation up to 15% of Energy Traded.</td>
</tr>
</tbody>
</table>

AP Government waives stamp duty and reduced Registration Fee for 10 GW of Solar Projects

- Andhra Pradesh Government has allowed the exemption of Stamp Duty and reduction of registration fee for the lease, purchase, and resumption of land for solar projects

- AP Govt. has reduced registration fee to Rs.1 on every Rs. 1,000 of the value of the document on land deeds entered by AP Green Energy Corporation Limited (APGECL) with landowners.

- The Registration and Stamps Department of Andhra Pradesh submitted that the total financial implication of the proposed move will be Rs.152.4 million. This financial implication is calculated based on chargeable stamp duty of Rs. 151.3 million and registration fee of Rs. 1,120,580 which is computed based on available total land of 28,014.7 acres for the projects.

- Earlier AP Govt. had issued an order with guidelines to implement its 10 GW solar power project program. The program aims to provide nine

---

14
hours of free power during the day to farmers without increasing the financial burden on the state's distribution companies.

**KERC extended time for complying RPO for FY 2020-21 considering pandemic effects**

- KERC with its order dated 24 August 2020 had extended the time for complying with RPO for FY20 by three months considering COVID-19 effects.

- As per the Commission order obligated entities namely distribution licensees, GRID connected captive consumers and open access consumers may meet their RPO for FY 2020 by 30 November 2020.

- Earlier APTEL suspended trading of RECs till 26 Aug 2020, considering stakeholder's submissions seeking further extension of time limit for meeting RPO upto 30 November 2020.

- Any obligated entity falling to meet the RPO or any part of it for FY 2020 within time specified shall be allowed to purchase RECs to the extent 110% of quantum of shortfall in meeting RPO by 31 Dec 2020.

**BERC issues RE Tariff Regulations applicable from FY 2020-21 to FY 2022-23**

- BERC has issued Draft BERC (Terms and conditions for Tariff determination from Renewable Energy Sources) Regulations for the control period of FY 2020-21 to FY 2022-23 on 21 August 2020.

- The Commission shall determine the generic tariff on the basis of suo-motu proceeding at the beginning of each year of the Control period for Solar PV including Rooftop Solar PV and Solar thermal which are having installed capacity of less than 5 MW.

- The Commission will determine project specific tariff in case of Solar photo voltaic power projects including Solar rooftop PV projects with capacity 5 MW or above.

- The generic tariff shall be determined by the Commission on levelized
basis by considering the year of commissioning of the project, for the
tariff period of the project and the discount factor equivalent to post-
tax weighted average cost of capital shall be considered.

• In case excess power produced by renewable energy project than de-
velopper may sell excess energy to beneficiary at tariff of 75% of appli-
cable tariff applicable for that year.

• Depreciation rate will be considered 4.67% for first 15 years and for
remaining useful life of project it is evenly spread.

• Interest on working capital for solar PV power projects will consist of
operation and maintenance expense for one month, receivables equiva-
 lent to 45 days of tariff for sale of electricity calculated on normative
Capacity Utilisation Factor and Maintenance spares equivalent to 15%
of Operation and Maintenance expenses.

• Normative O&M expenses allowed during first year of the Control Peri-
od i.e. financial year 2020-21 under these regulations shall be escalat-
ed at the rate of 3.84% per annum for the Tariff Period.

• The normative capital cost of for Solar PV projects and rooftop solar
PV projects of capacity less than 5 MW will be considered as INR 3.63
Crore per MW as per these regulations.

• Capacity utilisation factor for Solar PV will be 19% as per these regu-
lations. Normative operation and maintenance expenses as per these
regulations for first year of control period will be Rs. 8.58 lakh per MW
and will be escalated as per these regulations for rest of years.

• Auxiliary consumption will be considered as 0.75% of gross generation
as per these regulations.

KERC issues discussion paper on wheeling charges
and banking facility for renewable energy projects

• KERC in this Order proposes to levy 50% of the Normal Transmission
charges and wheeling charges for all RE sources transmitting and
wheeling electricity using the network of transmission and distribution
licensee as the case may be.

• These wheeling charges shall be applicable from date of the Order
upto 31 March 2022.
• Applicable losses as approved by the Commission from time to time shall be deducted from the net energy injected to arrive at the quantum of wheeling energy.

• KERC proposes to discontinue the banking facility extended to Solar, Min-hydel and wind power projects for both REC and non-REC route-based projects. If in case any energy banked and remaining unutilised at the end of each month shall be deemed to have been supplied to the concerned ESCOM, where RE generator is situated free of cost.

• This proposal will be applicable to all those renewable energy generators who enter into WBA from date of issue of the order and excludes those projects which have got commissioned on or before 31 March, 2018 and have not completed 10 years period from the date of commercial operation.

• This proposal also applicable to those projects that have completed the initial term of the Wheeling and banking Agreement (WBA) and desires to renew the same, in terms of the provisions of the WBA executed.

• KERC invites comments and suggestions from interested stakeholders latest by 23 September 2020.

No electricity tariff hike for Delhi in 2020-21

• Delhi’s power regulator DERC announced new tariffs for 2020-21 without any hike in view of the COVID-19 pandemic.

• The consumers will bear the rise in pension fund surcharge from 3.80% to 5%

• The new power tariff for the year 2020-21 waived 20% surcharge under time of day (ToD) tariff for this September to facilitate non-domestic, industrial, public utilities and domestic consumers due to the prevailing COVID-19 situation.

• To promote pollution-free transportation and clean environment, the Commission has decided to continue with the subsidised tariff rates for e-rickshaw and e-vehicle category.