JMK Research & Analytics

RE monthly Updates

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Lead Sponsors

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Contents

1. Tenders

- About 3369 MW of renewable tenders are issued in July 2020, including- 2070 MW of utility scale solar tenders under project development, 65 MW of floating solar tenders, and 9.5 MW of rooftop solar tenders. BHEL issued three new O&M tenders of solar projects of 79 MW capacity in Telangana. NTPC also issued a tender to acquire 1GW of operational solar assets in India.
- Hybrid tender of 225 MW capacity issued by Tata Power in June 2020 was allocated to Tata Power Green Energy Ltd. First of its kind RE + Storage tender of 1.95 MW capacity and 2.15 MWh battery capacity in Lakshadweep was also allocated to Sunsource Energy.
- Bids of 960 MW were also submitted for SECI 2000 MW wind tender under tranche IX

1.1 New RFS Issued

Tender Name	Technology	Capacity (MW)	Other details	Bid submission date
SECI, 1070 MW, Solar, (Tranche III), Rajasthan, July 2020	Solar	1070	EMD - Rs. 0.4 million/MW/project PBG - Rs. 0.8 million/MW/project	31-Aug-20
REMCL, 1GW, Solar (EPC), Pan India, July 2020	Solar (EPC)	1000	EMD - Rs. 1 million/MW	02-Sep-20
NTPC, 1GW, Pan India, July 2020	Solar project acquisition	1000	EMD – Rs. 10 million	22-Sep-20
SJVN Ltd., 100 MW Solar power, (EPC) Dholera Solar Park (Phase IX), Gujarat, July 2020	Solar (EPC)	100	EMD - Rs. 1.18 million	16-July-20

NHPC, 50 MW, Floating Solar, Kerala, July 2020	Floating Solar	50	EMD – Rs. 30 million	14-Aug-20
SSCL, 25 MW, Solar (EPC), Karnataka, July 2020	Solar (EPC)	25	EMD - 14 million	08-Aug-20
SECI, 15 MW Grid-Connected Floating Solar PV, Himachal Pradesh, July 2020	Floating Solar	15	EMD - Rs. 13.5 million	03-Aug-20
NOIDA, 10 MW, Solar, (EPC), July 2020	Solar (EPC)	10	EMD - Rs. 5 million	13-Aug-20
ANERT, 6 MW, Solar (EPC), Kerala, July 2020	Solar (EPC)	6	EMD - Rs. 0.5 million	01-Aug-20
SECI, 5 MW, Solar (EPC), Tamil Nadu, July 2020	Solar (EPC)	5	EMD - Rs. 4.48 million	21-Aug-20
GEDA, 5 MW, Rooftop Solar, Goa, July 2020	Rooftop Solar	5	EMD - Rs. 0.5 million (For Category A) Rs. 0.3 million (For Category B)	27-Jul-20
HAREDA, 3 MW, Rooftop solar with net metering, Haryana, July 2020	Rooftop Solar	3	EMD - Rs. 0.2 million	26-Aug-20
OREDA, 1.47MW, Rooftop Solar, Odisha, July 2020	Rooftop Solar	1.47		28-Jul-20
BHEL, SCCL 39 MW, O&M of Solar projects, Telangana, July 2020	Solar (O&M)	39	EMD - Rs. 1.53 million	31-Jul-20
BHEL, SCCL 30 MW, O&M of Solar projects, Telangana, July 2020	Solar (O&M)	30	EMD - Rs. 1.28 million	31-Jul-20
BHEL, SCCL 10 MW, O&M of Solar	Solar (O&M)	10	EMD - Rs. 0.626 million	31-Jul-20

projects, Telangana, July 2020				

Source: JMK Research

1.2 Retendered

GUVNL is retendering 100 MW capacity which remain unallocated in solar tenders (phase III-R & Phase VI) in Raghanesda solar park. Apart from this, NHPC is retendering 40 MW capacity tender in Odisha.

Tender Name	Technology	Other details	Bid submission date
GUVNL, 100 MW, Solar, Raghanesda Solar Park, Phase X, Gujarat, July 2020	Solar	EMD - Rs. 0.4 million /MW PBG - Rs. 0.944 million/MW	17-Aug-20
NHPC, 40 MW, Solar, Odisha, July 2020	Solar	EMD - Rs. 26 million	26-Aug-20

Source: JMK Research

1.3 Date Extension

Tender Name	Technology	Other details	Bid submission date
SECI, 7500 MW, Solar, Jammu & Kashmir, December 2018	Solar	EMD - INR 0.6 million / MW	Bid submission date extended till 30 Nov 2020
SECI, Pan India, 5000 MW, Thermal + RE, Mar 2020 (RTC-II)	Thermal + RE	EMD: INR 0.5 million/MW/Project PBG: INR 1.0 million /MW/Project	Bid submission date extended from 03 July 2020 to 04 Aug 2020
SECI, 2500 MW, ISTS, Solar UMREPP, Karnataka (ISTS X), April 2020	Solar	EMD - INR 0.4 million /MW PBG - INR 0.8 million /MW	Bid submission date extended from 14 July to 14 Aug 2020
SECI, Pan India, 1200 MW, Hybrid, Tranche-III, BOO Basis, Jan 2020	Hybrid	EMD: INR 0.5 million / MW PBG: INR 1 million /MW/Project	Bid submission date extended from 06 July 2020 to 14 Aug

SECI, 15 MW, Telangana, SSCL, Floating Solar, Apr 2020	Floating Solar	EMD: INR 10.7 million PBG: 10% of the total Contract Value	Bid submission date extended from 10 July 2020 to 03 Aug 2020
SECI, Leh & Cargil, 14 MW, Solar Power Plant with 42 MWH BESS, VGF, Jan 2020	Solar with 42 MWH BESS	EMD: INR 19.6 million	Bid submission date extended from 30 July 2020 to 30 Sept 2020
SECI, 10 MW, Solar PV Project, Rajasthan, June 2020	Solar	EMD – Rs. 0.45 million /MW/Project PBG – Rs. 1.8 million /MW/Project	Bid submission date extended from 24 July 2020 to 07 August 2020

Source: JMK Research

1.4 Results announced/ Bids submitted

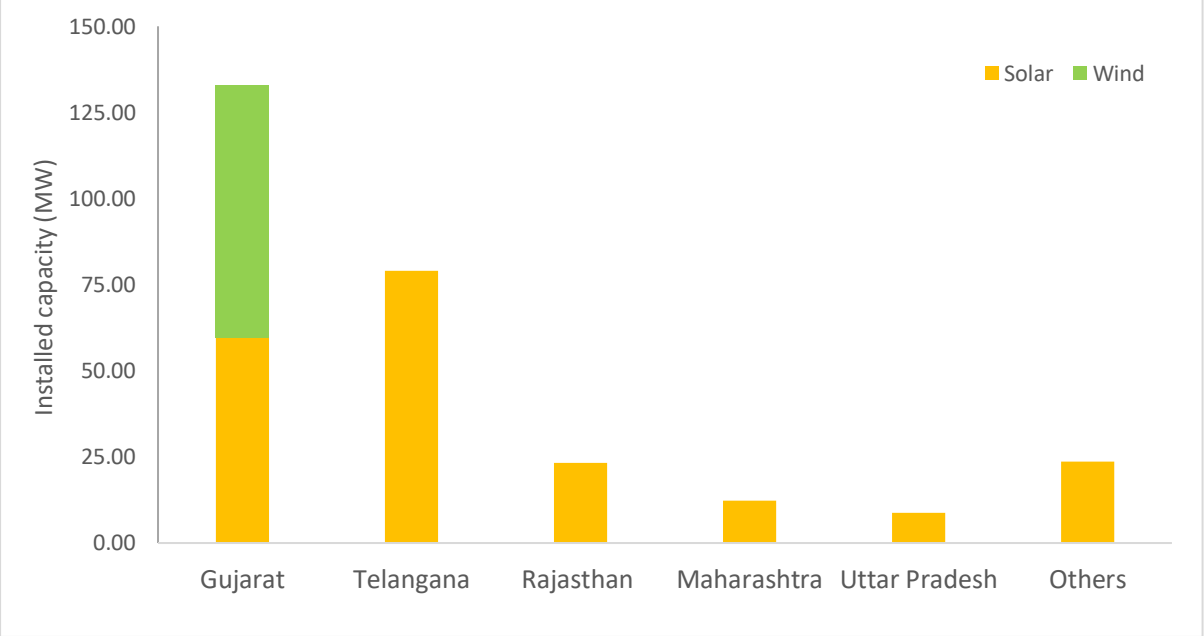
Tender name	Status	Capacity tendered (MW)	Capacity allotted / bid submitted (MW)	Bidders/ winners details
SECI, Pan India, 2 GW, Wind, Tranche Tranche-IX, Mar 2020	Bids submitted	2000	960	JSW Energy-750 MW Inox-50 Vena-160 MW
Tata Power, 225 MW, Wind-Solar Hybrid, June 2020	Results announced	225	225	Tata Power Green Energy Ltd.
SECI, 1.95 MW, (1.95MW +2.15 MWh battery energy storage) Solar, Lakshadweep, September 2019	Results announced	1.95 +2.15 MWh BESS	1.95 +2.15 MWh BESS	Sunsource Energy

Source: JMK Research

2. Projects Commissioned

In June 2020, about 207 MW of new solar capacity and 73.2 MW of new wind capacity is added.

State-wise installations in Solar and Wind during June 2020 – 280 MW



Source: MNRE, JMK Research

1.4 List of Recently Commissioned projects

Project Developer Name	Technology	Capacity tendered (MW)	Tender name	State/UT	Date of Commissioning
Sembcorp Energy India Ltd. (SEIL)	Wind	300	SECI, 1000 MW, Wind, ISTS (Tranche III)	Gujarat	July 2020

SCCL, Manuguru Solar Plant	Solar	30	SECI, 129 MW, Solar, Telangana, January 2019	Telangana	July 2020
NLC	Floating solar	20	NLC, 20 MW, Solar, Andaman and Nicobar	Andaman and Nicobar	July 2020
Aditya Birla Renewables	Solar (Captive use)	8.75		Andhra Pradesh	July 2020

Source: JMK Research

3. Investments/ Deals

Company Name	Deal Type	Sector	Asset	Acquirer / Investor	Deal Value	Stake Acquired
IBC Solar	M & A	Solar	27.4 MW, Odisha	Next Energy Capital (Next Power III)		
Fourth Partner Energy	Debt funding	Solar		ResponsAbility Zurich based Asset management firm	INR 110 Cr (USD 14.6 million)	

Source: JMK Research

Enel signs deal with Norfund to develop Green projects in India

Enel Green group has signed a deal with Norwegian Investment Fund to develop renewable projects in India. Green Power unit will take lead in developing and building each project that would be jointly financed and governed by Enel. With the help of this agreement, Enel trying to expand and strengthen their presence in India.

Softbank backed SB Energy withdraws first bond issue

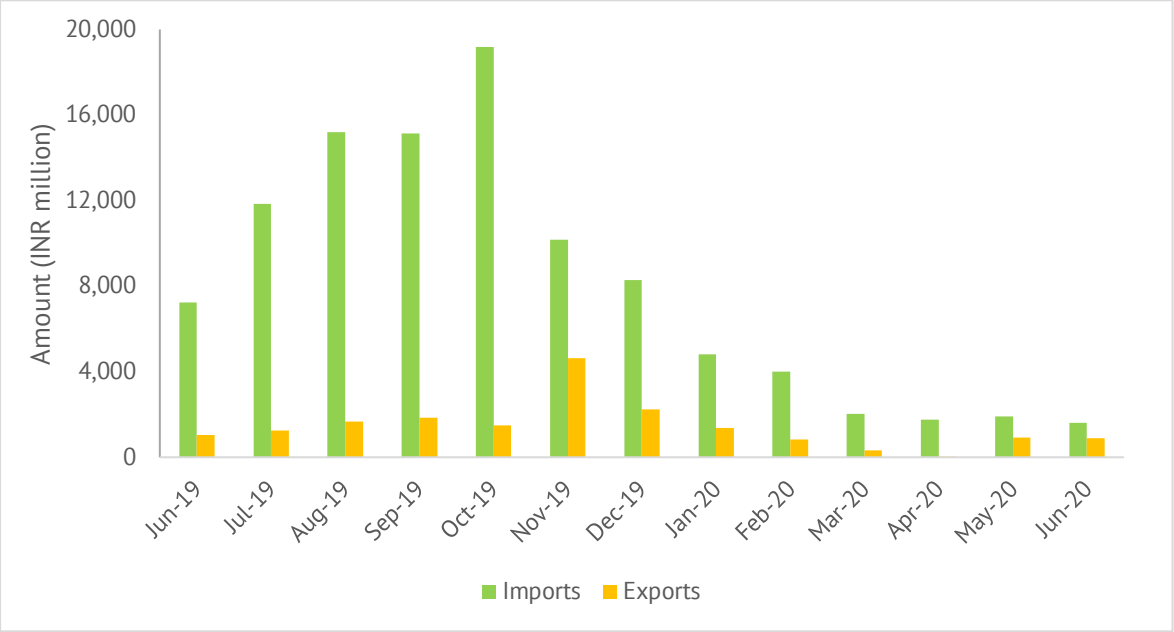
SB Energy had intended to raise $600 million through the issue of its maiden offshore bond and hence planning to raise debt for five years. The portfolio consists of largely SECI & NTPC projects. But company withdrew issuance of this bond due to poor response from investors.

BP to invest USD 70 million in India's Green Growth Equity Fund

UK based oil and gas firm, BP is set to invest USD 70 million in India's Green Growth Equity Fund with an aim to support zero carbon and low carbon energy solutions in India. With this BP would become a limited partner in the equity fund.

4. Monthly Import/ Export Trends

Monthly import, export data for solar modules

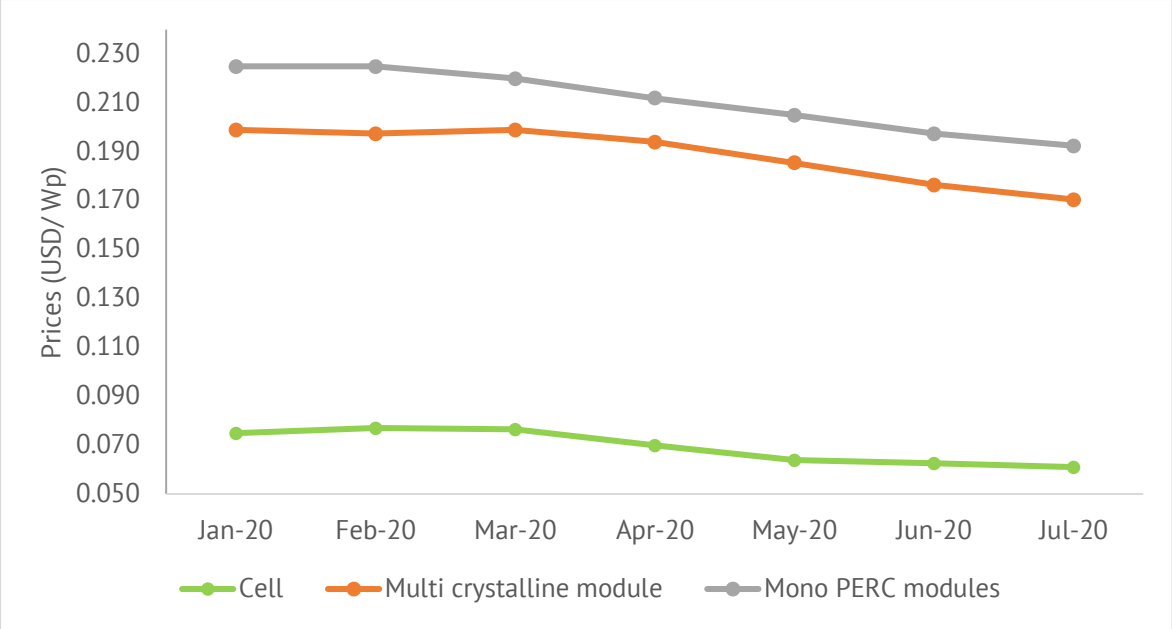


Source: Ministry of Commerce, JMK Research

5. Module Price Trends

Solar cells and modules - Global price trends

Compared to June 2020 prices, multi crystalline module prices have fallen by 3.4% in July 2020 while prices of mono PERC modules fell by 2.5%.



Source: PVInfoLink, JMK Research

5. Policies and Regulations

MNRE issued Benchmark costs for GRID connected rooftop solar PV for FY 2020-21

- MNRE with its notice dated 21 July, 2020 has released benchmark costs for GRID connected rooftop solar PV applicable in FY 2020-21 which is as follows: -

Capacity Range*	General Category States/UTs	Special Category States including North-Eastern States including Sikkim, Uttarakhand, Himanchal Pradesh, Jammu & Kashmir, Ladakh, Andaman & Nicobar and Lakshadweep Islands**
1 kW	47	52
>1 to 2 kW	43	47
>2 to 3 kW	42	46
>3 to 10 kW	41	45
>10 to 100 kW	38	42
>100 to 500 kW	36	40

*Capacity will be calculated based on Inverter capacity or the SPV module array capacity whichever is lower

**The separate benchmark cost for Special Category States will be applicable for projects under phase-II of the programme only.

- The above-mentioned benchmark costs are inclusive of the total project costs, which include solar modules, inverters, the balance of systems, cost of civil works, installation, commissioning, transportation, and comprehensive maintenance for five years. The benchmark costs do not include net metering costs and battery back-up costs.
- All participating DISCOMS under the phase II of the rooftop solar programme will ensure that the rate is discovered through transparent bidding process. The above-mentioned benchmark cost is indicative only.
- Above mentioned benchmark cost will be applicable for all LoAs to be issued and for all empanelment of developers/vendors to be done after 31 July, 2020 by implementing agencies in States/ UTs.

MNRE issues Guidelines for Solar Plants implementation under RESCO mode

- MNRE with its notice dated 22 July, 2020 has issued Guidelines for implementation of Solar Power packs/Plants in RESCO mode (Renewable Energy Service Company) on Build Own Operate Transfer (BOOT) basis.
- Earlier MNRE with its Order dated 24th April, 2020 has extended Off-GRID and Decentralized Solar PV applications Programme- Phase-III till 31 March, 2021. In continuation of the same these Guidelines has been issued.
- Through this Programme MNRE endeavours to promote energy access to rural areas of North East. Off-GRID solar systems working in tandem with GRID will be viable solution to achieve the same.
- Under this Programme Off-GRID systems of individual capacity upto 25kWp can be installed to provide electricity to Government schools, hostels, panchayats, police stations and other public service institutions. Installation of these systems will be under RESCO mode with 90% of benchmark cost of the system will be covered through Central Finance Assistance (CFA) from MNRE.
- RESCO mode is introduced with an objective to ensure proper repair and maintenance of the off-grid solar power plants installed under this Programme. Under RESCO model it is proposed that the vendor will install and operate the solar power plant of capacity up to 10 kWp for at least 10 years and solar PV plants of capacity above 10 kWp for at least 15 years.
- Under the programme, off-grid solar power plants can be installed in areas where the grid power is not available and areas where grid power though available but not reliable.
- The solar power plant shall be designed to supply Daily Minimum Guaranteed Energy (DMGE) to the beneficiary at the delivery point. The RESCO Company selected through competitive bidding will install the plant and operate the plant to supply DMGE to the beneficiary organization at the discovered tariff.

- The RESCO company have submit bank guarantee for an amount equivalent to 40% of the eligible MNRE's CFA. Bank guarantee will be released at the end of five years or at the time of replacement of batteries, whichever is later for projects up to 10 kWp capacity (10 year project life).
- For project of capacity more than 10 kWp and up to 25 kWp (15 years project life), 40% of bank guarantee will be released at the end of five years or first replacement of batteries, whichever is later and balance 60% of bank guarantee will be released at the end of 10 years or second replacement of batteries, whichever is later.
- RESCO company will be selected through competitive bidding and implementation timeline for project is three months as per these guidelines.
- The Power Producer i.e. RESCO and Power Purchaser i.e. beneficiary organization shall sign a PPA. Power producer shall be responsible to design, install, operate and maintain the solar power plant to supply Daily Minimum Guaranteed Energy (DMGE) to the beneficiary and beneficiary will make payment for the DMGE at tariff decided through bidding process on monthly basis.
- MNRE has computed levelized tariff of Rs. 5.96/kWh for a sample 4kWp Off-GRID solar system for reference to RESCO companies.

MNRE extended date of Self Certification for Inverters up to 31 December

- Considering ongoing pandemic situation MNRE has extended Self Certification for Inverters from 30 June, 2020 to 31 Dec, 2020 subject to the condition that such manufacturers have valid IEC certificates corresponding to IS (IS 16221(Part 2):2015/IEC 62109-2:2011 for item No 4 and IS 16169:2014/IEC 62116:2008 for item No. 5) specified in the said order for these items and test reports from international test labs, for smooth implementation of the order.

MNRE issued Guidelines for Tariff Based Competitive Bidding Process for Procurement of RTC Power from Grid Connected Renewable Energy Power Projects, complemented with Power from Coal Based Thermal Power Projects

- MNRE with its notice dated 22 July, 2020 has issued Guidelines for Tariff Based Competitive Bidding Process for Procurement of Round The-Clock (RTC) Power from Grid Connected Renewable Energy Power Projects, complemented with Power from Coal Based Thermal Power Projects under Section 63 of Electricity Act, 2003.
- To address the issues of intermittency, limited hours of supply and low capacity utilization of transmission infrastructure MNRE proposes bundling of power solution under these guidelines wherein coal based thermal power is bundled with renewable energy and used to provide round-the-clock power to the distribution company (DISCOM).
- The objective of these guidelines are as follows: -

    - To provide Round-The-Clock (RTC) power to the DISCOMs from renewable energy sources complemented/balanced with coal based thermal power.
    - To facilitate renewable capacity addition and fulfilment of Renewable Purchase Obligation (RPO) requirement of DISCOMs.

  - To provide a transparent, fair, standardized procurement framework based on open competitive bidding with appropriate risk-sharing between various stakeholders to enable procurement of power at competitive prices in consumer interest, improve bankability of projects and ensure reasonable returns to the investors.
  - To provide for a framework for an Intermediary Procurer as an Aggregator/Trader for the inter-state/ intra-state, long-term, sale-purchase of power.

- These Guidelines are applicable for long term procurement of electricity by the Procurers on RTC basis, from ISTS-connected Renewable (RE) Power Projects which will be complemented/balanced with power from coal based ISTS-connected Thermal Power Projects through competitive bidding.
- As per these Guidelines a thermal power generator cannot tie up with more than one bidder, for the same spare capacity. However, multiple spare capacities of the same thermal power plant can be tied up with different bidders in the same tender.
- Bundled power can be procured directly from generator or from intermediary procurer/trader. Trading margin, of Rs. 0.07/kWh shall be payable by the End Procurer to the Intermediary Procurer.
- Bid documents to be submitted as per these Guidelines and any Standard Bidding Documents (SBDs) as notified by the Central Government by bidders. In case the Procurer does not specify a site for RE Project and the RE Project site is selected by the RTC Power Generator and necessary documents related to the same should be submitted.
- According to these guidelines Generator shall supply despatchable RE Power complemented with Thermal Power, in Round-The-Clock manner, keeping at least 85% annual availability and also at least 85% availability during the peak hours. Peak hours will be four hours out of 24 hours and clearly specified by the Procurer beforehand in the Bidding Documents.
- These guidelines also state that Generator can combine storage for ensuring that it achieves the required minimum annual availability of 85%. However, annually minimum 51% of energy shall be offered from renewable energy sources. This 51% shall also include offer from the storage system, provided RE sources were used to store energy in the storage system.
- Bidder shall invite Composite Tariff based competitive bidding for selection of procurer and minimum quantum of power that can be offered by the bidder should be 250 MW.
- Bidders may form consortium to participate in bid process. The bidders shall also be required to furnish necessary bid-guarantee in the form of an Earnest Money Deposit (EMD) along with the bids.
- As per these guidelines Power Purchase Agreement (PPA) period should not be less than 25 years from the date of the Scheduled Commencement-of-Supply Date (SCSD). The PPA may also be fixed for a higher period such as 35 years, but in any case, the duration of the PPA to be mentioned upfront in the PPA document.
- In order to allow optimization of operation of RE and Thermal Power Generating Systems, the Generator is allowed to supply power from the thermal power plant in excess of contracted capacity, to any third party or power exchange without requiring any No-Objection Certificate (NOC) from the Procurer. The Generator may also sell the power which was offered to procurer

(within Contracted Capacity) but not scheduled by Procurer, to any third party or power exchange without requiring NOC from the Procurer on day ahead basis.

- In case if availability of Generator plant is less than 85% or if power supplied from renewable sources is less than 51% of total supplied power then Generator have to pay penalty as per these guidelines.
- The Procurer shall provide adequate payment security measures in the form of Revolving Letter of Credit (LC) of an amount not less than 1 months of average billing for the Project under consideration or payment security fund, which shall be suitable to support payment of at least 3 (three) months' billing of all the Projects tied up with such fund or State Government Guarantee.
- Under these guidelines various steps to be followed by procurer or generator has been mentioned in case of Force Majeure events. Force Majeure may be because of natural and non-natural events.
- There may be cases when Generator generates power but due to transmission unavailability the power is not evacuated, for reasons not attributable to the Generator. In such cases if Grid unavailability beyond 175 hours in a year, as defined in the PPA, generator will be compensated for loss of revenue as per following computation: -

  Generation Compensation = ((Composite Tariff x RE power (MW) offered but not scheduled by Procurer) + (Fixed Charge X Thermal power (MW) offered but not scheduled by Procurer)) X 1000 X No. of hours of grid unavailability

- As per these guidelines in case the plant is available to supply power but the offtake of power is not done by the Procurer, Generator shall be eligible for payment from the Procurer corresponding to the reduced offtake. For claiming compensation, the generator must sell their power in the power exchange as a price taker.
- Financial Closure timelines for projects with size less than 500 MW is 12 months, for projects with size less than 1000 MW but more than 500 MW is 18 months and for projects with size more than 1000 MW is 24 months.
- Projects shall be commissioned and commence supply of power within 12 months from the date of execution of the PPA with size less than 500 MW, within 24 months from the date of execution of the PPA with size from 500 MW to 1000 MW and within 30 months from the date of execution of the PPA with size more than 1000 MW.
- The Generator has to submit Earnest deposit money and Performance Guarantee in the form of Bank Guarantee or Payment on Order instrument as fixed by Procurer.

Ministry of Finance extended imposition of Safeguard Duty on Solar imports

- Ministry of Finance (MoF) with its notice dated 29 July, 2020 has extended imposition of safeguard duty upto 29 July, 2020.
- According to MoF notice safeguard duty will be applicable on solar cells whether or not assembled in modules or panels classifiable under the Tariff Headings 85414011 and/or 85414012 of Chapter 85 of Schedule-I of the Customs Tariff Act 1975.

- MoF notice states that safeguard duty of 14.90% minus anti-dumping duty, if payable will be applicable on the imports of solar cells and modules for the period from 30 July, 2020 to 29 January, 2021. And for the period from 30 January,2021 to 29 July, 2021 safeguard duty of 14.50% minus antidumping duty, if payable will be applicable.

MNRE issued amendments in Guidelines for Implementation of Component-C of PM-KUSUM Scheme

- MNRE with its notice dated 27 July, 2020 has issued amendments in guidelines for Implementation of Component-C of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme which is as follows: -

> *"IA shall invite bids for empanelment of venders through a transparent bidding process. Empanelment may be state-wide or feeder-wise, as per decision of the concerned State. To ensure quality and post installation services. IAs shall allow either one or both of the following two categories to participate in the tender for empanelment of venders:*
>
> *i. Manufactures of solar panels or manufacturer of solar water pumps*
> *ii. Joint venture of manufacturer for solar panels or manufacturer for solar water pumps with system integrators.*
>
> *Preferably single vendor may be given responsibility of a feeder to ensure better services and accountability."*

- Earlier, PM-KUSUM scheme was started in March, 2019 with objectives to solarize existing grid-connected agricultural pumps, to install grid connected renewable power plants and solar pumps across India.
- The objective of Component-C of PM-KUSUM scheme is to do Solarisation of 10 Lakh Grid-connected Agriculture Pumps of individual pump capacity up to 7.5 HP.
- Aforementioned amendment is mainly related to implementing agency (IA) bidding procedure. As per this amendment Implementing agency may empanel vendors through a transparent bidding process. The empanelment of vendors could be state-wise or feeder wise, as per the decision of the concerned state.
- To ensure quality, implementing agency shall allow either one or both among manufacturer of solar panels or solar water pumps and a joint venture of manufacturer of solar panels or manufacturer for solar water pumps with system integrators.
- Amendment also states that preferably single vender may be given responsibility of a feeder to ensure better services and accountability.

CERC issues Order for determination of levellised generic tariff for Renewable sources

- CERC with its order dated 21 July, 2020 has determined levellised generic tariff for FY 2020-21 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020.
- Earlier CERC issued the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020, on 24 June,2020 which provide for terms and conditions and the procedure for determination of tariff of the following categories of Renewable Energy (RE) generating stations:

    - Small Hydro Projects
    - Biomass Power Projects with Rankine Cycle technology
    - Non-fossil fuel-based co-generation Project
    - Biomass Gasifier based Power Projects
    - Biogas based Power Projects

    As per these Regulation CERC will determine project specific Tariff for following RE technologies: -

    - Solar PV power projects, floating solar projects and solar thermal power projects
    - Wind power projects (both on-shore and off-shore)
    - Biomass gasifier-based power projects and biogas based power projects – if a project developer opts for project specific tariff
    - Municipal solid waste-based power projects and refuse derived fuel based power projects
    - Renewable hybrid energy projects
    - Renewable energy with storage projects
    - Any other project based on new renewable energy sources or technologies approved by MNRE

- As per this Order useful life for RE projects is as below: -
    - Small Hydro -40 years
    - Biomass power project with Rankine Cycle technology -25 years
    - Non-fossil fuel-based co-generation -25 years
    - Biomass Gasifier -25 years
    - Biogas -25 years

- Control period is from 1 July, 2020 to 31 March, 2023 for Tariff applicability for RE projects.

- As per this Order Levellised Tariff is computed by carrying out levellisation for 'useful life' of each RE technology considering the discount factor for time value of money. The tariff for renewable energy sources computed considering following components: -

    - Return on equity
    - Interest on loan capital

  - Depreciation
  - Interest on working capital
  - Operation and Maintenance expenses

- CERC in this Order has approved the debt-equity ratio of 70:30 as per tariff regulations. The return on equity has been fixed at 16.96% for the first 20 years and 21.52% after 20 years of useful life.
- CERC considers depreciation rate for the first 15 years as 4.67% and from the 16th year onwards depreciation would be spread over the remaining useful life of the renewable energy project.

CERC releases Draft Power Market Regulations

- CERC notified draft Power Market Regulations on 18 July, 2020. These regulations shall apply to Power Exchange, Market participants and Over the Counter (OTC) market. The last date for submission of comments/suggestions in relation to these draft regulations is 7th August, 2020.
- As per these draft regulations power exchange will be established with an objective to design electricity contracts and facilitate transactions of such contracts. Power exchange will also facilitate extensive, quick and efficient price discovery and dissemination.
- These regulations shall cover delivery-based electricity contracts like day ahead contracts, real time contracts, intra-day contracts, contingency contracts, term ahead contracts and any other contracts including capacity contracts and ancillary services contracts, as may be approved by the Commission.
- Contracts relating to Renewable energy certificates, energy saving certificates and any other contracts, as may be approved by the Commission also covered under these regulations.
- CERC introduces OTC Platforms to allow technology driven price dissemination for the buyers and sellers in the OTC Market. The settlement of contracts transacted in the OTC Market shall be only by physical delivery of electricity without netting.
- This draft regulation introduces new concept called 'market coupling', which is a process of collecting bids from all power exchanges and matching them to discover a uniform market clearing price through an agency called a market coupling operator.
- Market coupling concept introduced with objectives to discover uniform market clearing price for the day ahead market or real time market or any other market as notified by the Commission, to maximise economic surplus, after taking into account all bid types and thereby creating simultaneous buyer-seller surplus and to use transmission infrastructure optimally.
- Through this Draft regulation CERC has strengthen norms for power exchange and the net worth requirement of Power exchange has been increased to Rs. 50 Crores.

RERC issues Draft Tariff Regulations for Renewable Energy Projects in Rajasthan

- RERC invites comments from stakeholders on Draft (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020 by 14 August, 2020.

- These Regulations will be applicable for determination of Tariff for various renewable technologies from 1 April, 2020 to 31 March, 2023.
- The generic tariff shall be determined by the Commission on annual basis in accordance with these Regulations for Biomass power project with Rankine cycle technology; Biogas based power project; and Biomass gasifier based power project.
- RERC may determine project specific Tariff on case to case basis for following technologies: -
    - Wind power projects (both on-shore and off-shore)
    - Solar PV power projects and solar thermal power projects
    - Biomass Gasifier based projects; if a project developer opts for project specific tariff
    - Biogas based projects; if a project developer opts for project specific tariff
    - Small Hydro projects
    - Non-fossil fuel-based co-generation project
    - Floating Solar PV Projects
    - Municipal Solid Waste and Refuse Derived Fuel based projects with Rankine cycle technology
    - Renewable hybrid energy projects
    - Renewable Energy with Storage projects
    - Any other new renewable energy technologies approved by MNRE
- As per these Regulations Tariff for renewable energy technologies shall be single part tariff consisting of the following fixed cost components:
    - Return on equity
    - Interest on loan capital
    - Depreciation
    - Interest on working capital
    - Operation and Maintenance expenses
- RERC will determine generic tariff on levellised basis considering the year of commissioning of power project. For renewable technologies having fixed part Tariff with two components, fixed component will be determined by RERC on levellised basis considering the year of commissioning of the project and variable component will be determined by RERC on year of operation basis in the Tariff Order to be issued by RERC.
- As per these Regulations Debt: Equity ratio will be considered as 70:30 for any project. Loan tenure as 15 years and normative interest rate of two hundred (200) basis points above Base Rate prevalent during the last available six months will be considered.
- RERC will consider depreciation rate of 4.67% per annum for first 15 years and the remaining depreciation shall be spread over the remaining useful life of the project considering the salvage value of the project as 10% of the project cost.
- The normative Return on Equity shall be considered 14%. The normative Return on Equity shall be grossed up by the latest available notified Minimum Alternate Tax (MAT) rate for the entire Tariff Period.
- The minimum Capacity utilisation factor considered for Solar is 20% and maximum auxiliary consumption factor shall be considered as 0.75%.

- For open access consumes wheeling charges for Renewable Energy Projects shall be applicable on per unit basis on the total energy wheeled and not on the basis of open access contracted capacity.
- As per these regulations cross-subsidy surcharge and additional surcharge as determined by RERC from time to time shall be applicable in case of open access transactions based on renewable energy power stations.
- This regulation states that for Captive players banking will be capped @ minimum CUF for corresponding renewable technologies and for third party transactions no banking is allowed. Banking allowed for financial year with time block wise settlement and applicable banking charges will be 10%.
- Excess energy will be carried over month to month as banked energy with condition that excess energy at the end of year will be considered lapsed and no compensation shall be applicable on unutilized banked energy at the end of the financial year.
- As per these Regulations parallel operating charges will be applicable on part load which is co-located with Renewable Energy based Captive Power Plant.

RERC approves levelized Tariff of Rs. 3.14/unit under Component-A of PM-KUSUM Scheme for capacity up to 725 MW Solar

- RERC with its order dated 7 July, 2020 has approved levelized Tariff of Rs. 3.14/unit for Solar projects under Component-A of PM-KUSUM scheme for capacities up to 725 MW.
- Earlier MNRE has launched the guidelines for implementation of PM-KUSUM scheme on 22nd July, 2019 covering the three components namely Component-A, Component-B & Component-C.
- The Scheme consists of three components with following objectives: -

  Component A: Setting up of 10 GW of Decentralized Ground Mounted Grid Connected Renewable Power Plants of individual plant size up to 2 MW.

  Component B: Installation of 17.50 lakh standalone Solar Powered Agriculture Pumps of individual pump capacity up to 7.5 HP.

  Component C: Solarisation of 10 Lakh Grid-connected Agriculture Pumps of individual pump capacity up to 7.5 HP.
- Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RUVNL) on behalf of DISCOMs filled petition for extending the pre-fixed levellised tariff as already determined by Commission in its order dated 11 Feb, 2020 for 325 MW capacities under Component A of the PM-KUSUM scheme up to 725 MW capacity.
- As per MNRE guidelines Discoms has already identified 4456 sub-stations in Rajasthan where solar power may be injected and solar capacity which can be assessed was 6314 MW. Discoms published the list of these 33/11 kV sub-stations on their website for reference of the farmers. Rajasthan Renewable Energy Corporation Limited (RRECL) initiated the bidding process for the same.
- RERC approved pre-fixed levellised Tariff of Rs. 3.14/unit for capacity up to 725 MW under PM-KUSUM scheme. RERC also directed Discoms to aggressively pursue with MNRE for increase in

their allocation under Component-A of PM-KUSUM scheme so that the Procurement Based Incentive (PBI) is available to them.

- RERC also acknowledged that PM-KUSUM scheme will help in meeting day time power requirement of farmers and also reduces the system loss. This scheme also helps in fulfilling RPO compliance of DISCOMs

PEDA invited applications from interested farmers under Component-B PM-KUSUM scheme

- Punjab Energy Development Agency (PEDA) has invited applications from interested farmers, Panchayats, Government Institutions, Farmers Producer Organisations, Water user associations for installation of solar pumps with capacities 3, 5, 7.5, and 10 horsepower (HP) of surface and submersible types.
- The application can be submitted by interested participants from 7 July, 2020 to 27 July, 2020. 4,600 online applications for 4,500 solar pumps would be accepted. The additional 100 applications will be waitlisted in case a selected farmer drops out.
- PEDA has identified 22 safe ground water blocks for solar pump installation under aforementioned scheme. Applications from other zones (dark zones) also permitted for submission provided that in dark zones blocks, solar pumps must be installed only to replace diesel pumps that are being used in micro irrigation systems.
- As per PEDA notice Solar Pumps shall be allocated to the eligible farmers on first come first serve basis and preference shall be given to the farmers having Micro (Drip/Sprinkler) irrigation systems.
- It is stated that farmers may contact any HDFC bank branch in Punjab for guidance / assistance for online applications submissions. The farmers who want to take loan can contact Punjab State Co-operative Agricultural Development Bank Branches across the State.
- The Government of Punjab stated that it would provide a 30% subsidy to general category farmers and 50% subsidy to scheduled caste (SC) farmers over and above the 30% GOI subsidy under the funding pattern. A total of 60% subsidy shall be provided to General Category and 80% to Scheduled Caste Category farmers and they have to contribute 40% and 20% cost of the system respectively.
- PEDA also provided minimum requirement of agricultural land, shadow free area and bore well size details in its notice. Details about cost of solar pumps and farmer share also mentioned in PEDA notice.

Andhra Pradesh Government notified Policy for Renewable Policy export to other States

- Government of Andhra Pradesh (GoAP) with its Order dated 17 July, 2020 has issued Andhra Pradesh Renewable Energy Export Policy, 2020 which is applicable for solar, wind and wind-solar hybrid projects.
- Through this policy Andhra Pradesh government encourages investors to develop and promote renewable energy projects for exporting renewable energy outside state.
- New and Renewable Energy Development Corporation of A.P. Ltd, (NREDCAP) shall act as a Nodal Agency under this policy.

- Main objectives of this policy are: -
    - To facilitate 120 GW renewable energy projects.
    - To facilitate lease of 5 lakh acres of potential land in the state of Andhra Pradesh to renewable energy export project developers.
    - To attract private investments to the State and improve local economy.
    - To promote setting up of renewable energy equipment manufacturing facilities in the State.
    - To generate additional revenue to the State Government.
- This policy shall remain in force for five years from date of notification.
- As per this policy Project set up to export power outside the State. If in case power is supplied within state under open access, then all charges as levied by APERC will be applicable.
- Priority will be given to those project developers who are intending to set up energy export project along with manufacturing facility.
- As per aforementioned policy lease period for lands is 30 years and Government through a land aggregating agency (NREDCAP or any other agency) will procure and aggregate government & private lands at potential locations for allotment to the project developers on lease basis.
- The land aggregating agency shall charge lease rentals of Rs 31,000 / acre/ year from the date of taking possession till completion of lease period. The lease rentals will be escalated by 5% in every two years.
- Aggregating agency have to pay land lease charges of Rs. 2500/acre/year to private land developers.
- As per this policy following one time charges paid by project developers: -
    - Local Area Development Fund –Rs. 0.5 lakh per acre
    - Park infrastructure development charges
    - One-time processing fee - Rs. 2000 per acre
- Projects will be exempted from obtaining any NOC/Consent for establishment under pollution control laws from AP Pollution Control Board.
- Through this Policy GoAP also intend to promote renewable energy manufacturing facility that can contribute towards economic development of the state and create deployment. Following additional incentives shall be applicable for new manufacturing facilities, equipment and ancillaries related to renewable energy set-up: -
    - Priority allotment of land on long term lease basis.
    - Exemption from payment of Electricity duty for a period of 10 years from date of commencement of manufacturing activities.
    - Extending of incentives as per the prevailing Industrial Promotion Policies of the Government of Andhra Pradesh.

HERC denied Net Metering for Open Access Consumers in Haryana

- HERC with its order dated 10 July, 2020 has denied Shree Cement Ltd. seeking relaxation in requirements as per Regulation 3.5 of Haryana Electricity Regulatory Commission (Rooftop Solar

Grid Interactive System based on Net Metering) Regulations, 2014 and allowing both Net Metering and Open Access facility.

- As per Regulation 3.5 of Haryana Electricity Regulatory Commission (Rooftop Solar Grid Interactive System based on Net Metering) Regulations, 2014 which is stated as follows: -
  "3.5 For open access consumers, the facility of net metering shall not be available, and they will have to take recourse to Regulation 3.4 above. "
  The Facility of Net Metering is not allowed for open access consumers in state of Haryana.
- Earlier HERC rejected petition of Haryana Chamber of Commerce and Industries, Panipat requesting amendment in HERC Regulation with its order dated 26 June, 2019 by stating following:

The Petitioner has primarily raised a challenge to ibid Regulations under the garb of seeking relaxation thereto. Any such exercise cannot be undertaken by the Commission in an adjudicatory framework. The same is more in the nature of exercising legislative function of the Commission as the Regulations framed by it are in the nature of sub-ordinate (delegated) legislation. Hence, ordinarily relaxation in the Regulations cannot be considered on a Petition filed by the Petitioner comprising particular category of consumers.

- Similarly, in Maharashtra, MERC with its Order dated 12 June 2018 in Case No 163 of 2017 has rejected the Petition of Cleanmax Enviro Energy Solutions Pvt Limited, seeking clarification on the net metering arrangement for Open Access consumer, specifying that
  "Net metering and open access are two different sets of arrangements for different eligible consumers and its regulatory framework has also been provided by the two different regulations. If these two arrangements are mixed up, then there are various issues related to grid security, accounting, billing, settlement, etc. Hence, the commission has made net metering regulations for "below 1 MW" and open access for "1 MW and above" and these cannot be availed simultaneously by the same consumer."
- HERC also highlighted that it has been settled by a Constitution Bench decision of the Hon'ble Supreme Court in case of PTC India Limited v/s Central Electricity Regulatory Commission (2010) 4 SCC 603 that power of the Regulatory Commission to frame Regulations is distinguished from its Adjudicatory functions. Any person filing a Petition to amend the Regulation cannot be entertained as the same is a matter of judicial review and such power are not conferred to the Regulatory Commission under the adjudicatory framework.
- Currently, Shree Cement is getting power from two sources i.e. open access and Discoms. In case, if net metering facility is allowed to the open access consumer, then such consumer will be getting power from three sources which will lead to complexity in Grid Security, Energy Accounting, Billing, Settlement etc.
- HERC rejected Shree Cement prayer for Net Metering facility as it already getting power in Open Access mode.

MERC approves application submission for Open Access before Solar Plant commissioning

- MERC with its order dated 5 July, 2020 has approved Mahindra CIE Automotive Ltd. (Buyer) petition for seeking approval of its open access application before Navalakha Solar plant commissioning (Seller).
- Navalakha is Solar Generator and it has set up a 10 MW Solar generation plant at Osmanabad District of Maharashtra in Year 2013. It had applied for Permission to Commissioning (PTC) for the newly installed two nos. of solar generating plants of 2.5 MW each, on 25 September 2019.
- MSEDCL granted PTC to the solar project of Navalakha on 22 October, 2019 stating that the generator should get open access permission within 30 Days.
- Mahindra CIE (OA Consumer) is having two companies, one located at Bhosari, Pune and other at Chakan (Taluka Khed), Pune. Mahindra CIE executed an agreement for purchase of electricity with Navalakha Solar Plant.
- Mahindra CIE applied for OA permissions on 10 October, 2019 by filing two separate applications in respect of its two units (viz. Bhosari & Chakan) with effect from 1st November, 2019.
- MSEDCL rejected Mahindra CIE application by stating that Navalakha Solar plant is commissioned after the last date which is allowed for application to get short term open access for the month of November, 2019.
- The electricity generated by Navalakha solar power plant has been injected into the grid and has been used by MSEDCL. The total generation during the period from 1 to 30 November, 2019 is approx. 6,10,000 units.
- It is submitted that as on 30 September, 2019, all necessary compliances had been made by the Navalakha Solar Plant. However, there was a delay on the part of MSEDCL to issue PTC and ultimately the project was commissioned on 25 October 2019.
- MERC noticed that no commissioning certificate is mandatory as per MERC open access regulations, however as per MSEDCL procedure such certificate is required to submit before submission of open access application.
- In view of the above, the Commission is of the view that MSEDCL should not have rejected the Open Access permission to Navalakha Solar Plant. The DOA (Distribution Open Access) Regulations do not require submission of commissioning certificate along with the open access application.
- MERC approved short term open access application of Mahindra CIE for November, 2019 and directed MSEDCL to adjust the credit units in the energy bill accordingly.

Chief Minister decides to extend 'Gujarat Solar Power Policy-2015' till Dec 31

- Hon'ble Chief Minister of Gujarat has decided to extend time frame of applicability of Gujarat Solar Policy- 2015 up to 31 Dec, 2020.
- Hon'ble Chief Minister also stated that Gujarat government has announced Rs. 14000 Crore *Atmanirbhar* Package under which time frames of many policies has been extended. This step is taken keeping in mind ongoing pandemic effects.
- This step will boost the Gujarat government target to achieve solar energy production of 8000 MW by 2022.

- This initiative will help power distribution companies to fulfil their Renewable Purchase Obligation and now solar power projects developers captive power projects, solar power projects for third-party sale, as well as MSME Units, Industries, Commercial Usage, and 'Roof-top Solar Power Projects on the buildings of government offices and premises could be installed

GERC determines additional surcharge for Open Access consumers

- GERC with its Order dated 22 July, 2020 has determined additional surcharge for Open Access consumers for the period of 1 October, 2020 to 31 March, 2021.
- GERC earlier with its order dated 12 March, 2014 has decided the applicability and methodology of Additional Surcharge to the Open Access consumers.
- GERC has been determining Additional Surcharge on six monthly basis based on the data being furnished by Gujarat Urja Vikas Nigam (GUVNL) and accordingly has last determined Additional Surcharge for the period of 1 April, 2020 to 30September, 2020 vide Order No. 1 of 2020 dated 16March,2020.
- Based on data as submitted by GUVNL GERC has determined Additional Surcharge of Rs. 0.60/kWh applicable to the consumers of four State Owned DISCOMs i.e. DGVCL, MGVCL, PGVCL and UGVCL who avail power through Open Access from any source other than their respective DISCOM for period from 1 October, 2020 to 31 March, 2021.

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