MINISTRY OF POWER RESOLUTION

WHEREAS the Ministry of Power Resolution has published a Policy with amendments on different dates the following, namely:-

Ministry of Power Resolution, (Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects), 2017;
(Notification No. : 23/27/2017-R&R, Dated: 03.08.2017)

A. (Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects), 2017 (First Amendment), 2018;
(Notification No. : 23/27/2017-R&R, Dated: 14.06.2018)

B. (Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects), 2017, (Second Amendment), 2019;
(Notification No. : 23/27/2017-R&R, Dated: Dated: 03.01.2019)

C. (Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects), 2017, (Third Amendment), 2019;
(Notification No. : 23/27/2017-R&R-1.0, Dated: Dated: 09.07.2019)

- Inserted/ Replaced matter is shown as *[ ]*^{A} at appropriate place; wordings inserted/ replaced shown within square brackets;
- In both of above cases; -^{A} ; superscript A implies that change is caused by Amendment '1'.

MINISTRY OF POWER
RESOLUTION
New Delhi, the 3rd August, 2017

Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects

No. 23/27/2017-R&R.—1. PREAMBLE

1.1 Background

1.1.1. Promotion of competition in the electricity industry in India is one of the key objectives of the Electricity Act, 2003 ('**Act**'). Power purchase costs constitute the largest cost element for distribution licensees. Competitive procurement of electricity by the distribution licensees is expected to reduce the overall cost of procurement of power and facilitate development of power markets. Internationally, competition in wholesale electricity markets has led to reduction in prices of electricity and in significant benefits for consumers.

1.1.2. Section 61 & 62 of the Act provide for tariff regulation and determination of tariff of generation, transmission, wheeling and retail sale of electricity by the Appropriate Commission. As per proviso of Section 61 read with Section 178(2) of the Electricity Act, 2003, the Terms and Conditions for Tariff determination from Renewable Energy Sources Regulations, 2012 were framed by the Central Electricity Regulatory Commission (CERC) in February, 2012. Further, section 63 of the Act states that –

"Notwithstanding anything contained in section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government."

1.1.3. Section 10 of the Electricity Act provides that a generating company may supply electricity to any licensee in accordance with the Act and rules and regulations made there under and may, subject to the regulations made under sub-section (2) of Section 42, supply electricity to any consumer.

1.1.4. The National Tariff Policy, 2016 formulated by the Ministry of Power, has specific guidance on purchase of power generated from renewable energy sources. As per Section 6.4(2), "*States shall endeavor to procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste to energy plants. Procurement of power by Distribution Licensee from renewable energy sources, from Solar PV Power Projects above the notified capacity, shall be done through competitive bidding process, from the date to be notified by the Central Government. However, till such notification, any such procurement of power from renewable energy sources projects, may be done under Section 62 of the Electricity Act, 2003.*"

1.2. Objectives

1.2.1. The specific objectives of these Guidelines are as follows:

a) To promote competitive procurement of electricity from solar PV power plants, by distribution licensees, to protect consumer interests;

b) To facilitate transparency and fairness in procurement processes / and to provide for a framework for an Intermediary Procurer as an Aggregator/Trader for the inter-state/intra-state sale-purchase of long-term power.

c) To provide standardization and uniformity in processes and a risk-sharing framework between various stakeholders, involved in the solar PV power procurement, thereby encouraging investments, enhanced bankability of the Projects and profitability for the investors.

2. SCOPE OF THE GUIDELINES

2.1. Applicability of Guidelines:

2.1.1. These Guidelines are being issued under the provisions of Section 63 of the Electricity Act, 2003 for long term procurement of electricity by the 'Procurers', from grid-connected Solar PV Power Projects (**'Projects'**), having size of **5 MW and above,** through competitive bidding.

Explanation:

a) '**Procurer**': The term 'Procurer', as the context may require, shall mean the distribution licensees, or the Authorized Representative(s), or an Intermediary Procurer.

b) '**Authorised Representative' of the Procurer:** In cases, where the Power Purchase Agreement (**PPA**) signing agency and the agency carrying out the tendering/bidding process are different, the agency carrying out the tendering / bidding process shall be deemed to be the Authorized Representative of the 'Procurer' and will on behalf of the Procurer be responsible for fulfilling all the obligations imposed on the 'Procurer' during the bidding phase, in accordance with these Guidelines.

c) '**Intermediary Procurer**' & '**End Procurer**':

i. In some cases, an intermediary, between the distribution licensees and the generator ('**Solar Power Generator**'), may be required either to aggregate the solar power purchased from different Solar Power Generators and sell it to the distribution licensee, or to enhance the credit profile. In such cases, the "Procurer" would be a trader, buying power from the Solar Power Generators and selling the same to one or more distribution licensees, such distribution licensees shall be the "End Procurer" and the trader shall be "Intermediary Procurer" for the purpose of these Guidelines.

ii. The Intermediary Procurer shall enter into a PPA with the Solar Power Generator and also enter into a Power Sale Agreement **(PSA)** with the End Procurer. The PSA shall contain the relevant provisions of the PPA on a back to back basis. The trading margin, as notified by the Appropriate Commission (or in the absence of such notification, as mutually decided

between the Intermediary Procurer and the End Procurer), shall be payable by the End Procurer to the Intermediary Procurer.

iii. In such cases, as long as the Intermediary Procurer has followed these Guidelines for procurement of solar power, the End Procurer shall be deemed to have followed these Guidelines for procurement of solar power.

2.1.2. Unless explicitly specified in these Guidelines, the provisions of these Guidelines shall be binding on the Procurer/ Intermediary Procurer/ End Procurer and the Authorised Representative of the Procurer. The process to be adopted in event of any deviation proposed from these Guidelines is specified in Clause 18 of these Guidelines.

2.2. Appropriate Commission:

2.2.1. Subject to the provisions of the Act:

a) In case of a single distribution licensee being the Procurer, the Appropriate Commission, for the purpose of these bidding Guidelines, shall be the State Electricity Regulatory Commission of the concerned State where the distribution license is located.

b) In case of combined procurement where the distribution licensees are located in more than one State, the Appropriate Commission for the purpose of these bidding Guidelines, shall be the Central Electricity Regulatory Commission.

c) For cases involving sale of power from Central Generating Stations, the Appropriate Commission shall be the Central Electricity Regulatory Commission.

3. PREPARATION FOR INVITING BID AND PROJECT PREPAREDNESS

3.1. Conditions to be met by Procurer

The Procurer shall meet the following conditions:

3.1.1. Bid Documentation:

a) Prepare the bid documents in accordance with these Guidelines and Standard Bidding Documents (**SBDs**) [consisting of Model Request for Selection (**RfS**) Document, Model Power Purchase Agreement and Model Power Sale Agreement], notified by the Central Government, except as provided in sub clause (c) below.

b) Inform the Appropriate Commission about the initiation of the bidding process.

c) Seek approval of the Appropriate Commission for deviations, if any, in the draft RfS draft PPA, draft PSA (if applicable) from these Guidelines and/ or SBDs, in accordance with the process described in Clause 18 of these Guidelines.

i. However, till the time the SBDs are notified by the Central Government, for purpose of clarity, if the

Procurer while preparing the draft RfS, draft PPA, draft PSA and other Project agreements provides detailed provisions that are consistent with the Guidelines, such detailing will not be considered as deviations from these Guidelines even though such details are not provided in the Guidelines.

ii. Further, in case of an ongoing bidding process, if the bids have already been submitted by bidders prior to the notification of these Guidelines and/or SBDs, then if there are any deviations between these Guidelines and/or the SBDs and the proposed RfS, PPA, PSA (if applicable), the RfS, PPA and the PSA shall prevail.

d) Procure the following clearances, as relevant:

i. In case of procurement from Projects to be located at a site to be specified by the Procurer, clearance by the relevant authority of the draft land lease or other land related agreements consistent with the draft PPA, draft PSA and other Project agreements.

ii. Clearance by the End Procurer of the draft RfS, PPA and PSA having details specific to the proposed procurement.

iii. clearance by the agency developing the Solar Park ['**Solar Power Park Developer'** (**SPPD**)] for draft Implementation Agreement, consistent with the draft PPA and the draft PSA, in case of a procurement from Projects to be located in Solar Parks specified by the Procurer.

3.1.2. Site-related Project preparatory activities including clearances:

In order to ensure timely commencement of supply of electricity being procured and to convince the bidders about the irrevocable intention of the Procurer, it is necessary that various Project preparatory activities as mentioned in Clause 3.2.1 and Clause 3.2.2 of these Guidelines are completed in time.

3.2. Arrangements related to site

As specified in the bidding documents to be issued by the Procurers, the Project may be set up either at the Project site specified by the Procurer, or at the Project site selected by the Solar Power Generator.

3.2.1. Project site specified by the Procurer: The Procurer may choose to locate the Project at a specified site and the same may be specified by the Procurer in the bidding documents. In such cases, to ensure timely commencement of supply of electricity, the Procurer shall ensure that various Project preparatory activities as indicated below have been initiated by the Procurer before issuance of the RfS. These activities would be required to be completed prior to the PPA being executed.

a) Land: Identification of 100% (hundred per cent) land and provision of documents/ agreements to indicate in-principle availability of at least 25% (twenty-five per cent) of land at the initiation of bidding, and possession of 90% (ninety per cent) of land within 1 (one) months of the execution of the PPA and the balance 10% (ten per cent), within 2 (two) months thereafter.

b) No Objection Certificate (NOC)/ Environmental Clearance (if applicable) for the Project.

c) Forest Clearance (if applicable) for the land for the Project.

d) Approval for Water from the concerned authority (if applicable) required for the Project.

e) A letter from the STU/ CTU confirming technical feasibility of connectivity of plant to STU/ CTU substation, except for the cases where the concerned STU / CTU has notified, sub-station wise spare capacities for feasibility of connectivity.

3.2.2 Project site specified by the Procurer in a Solar Park: The Procurer may choose to locate the Project in a concentrated zone characterized with proper infrastructure and access to amenities ('**Solar Park'**) and the same may be specified by the Procurer in the bidding documents. The Solar Park shall be developed as per the "Guidelines for Development of Solar Parks" issued by MNRE as amended from time to time. Notwithstanding this, to ensure timely commencement of supply of electricity, the Procurer shall ensure that various Project preparatory activities as indicated above in clause 3.2.1. (a) to (e), have been initiated and completed by the concerned SPPD as per the timelines mentioned therein. In addition to above, the responsibilities of the Solar Power Park Developer shall flow from the "Guidelines for Development of Solar Parks", developed by MNRE and Implementation Support Agreement, which defines the relationship between the Solar Power Park Developer and the Solar Power Generator.

3.2.3 Project site selected by the Solar Power Generator: In case the Procurer does not specify a site or in a Solar Park and the Project site is selected by the Solar Power Generator, to ensure timely completion and commencement of supply of power, the bidder would be required to submit documents in respect of matters as mentioned below, as per the time schedule specified in the bidding documents:

a) ~~Land acquisition: Identification of the 100% (hundred per cent) land at the time of bid submission and within 7 (seven) months of the execution of the PPA, submission of documents/ Lease Agreement to establish possession/ right to use 100 % (hundred per cent) of the required land in the name of the Solar Power Generator or its Affiliate. In case the land is in the name of Affiliate, the land should be transferred in the name of Solar Power Generator prior to Scheduled Commissioning Date (SCD). Wherever leasing of private land is involved, the lease should allow transfer of land to the lenders or Procurer, in case of default of the Solar Power Generator.~~

*"**Land acquisition**: Within 12(twelve) months of the execution of the PPA, submission of documents/ Lease Agreement to establish possession/ right to use 100 % (hundred per cent) of the required land in the name of the Solar Power Generator or its Affiliate. In case the land is in the name of any other entity, including Affiliate, the land/ land lease rights should be transferred in the name of Solar Power Generator prior to Scheduled Commissioning Date (SCD). Wherever leasing of private land is involved, the lease should allow transfer of land lease rights to the lenders or Procurer, in case of default of the Solar Power Generator.[1]"*

b) No Objection Certificate (NoC)/Environmental clearance (if applicable) for the Project.

c) Forest Clearance (if applicable) for the land for the Project.

d) Approval for Water from the concerned authority (if applicable) required for the Project.

e) A letter from State Transmission Utility (STU)/Central Transmission Utility (CTU) [or Solar Power Park Developer, in case of selected site being a solar park] confirming technical feasibility of connectivity of the plant to STU/CTU substation. If the Project site is located in the same State as the Procurer/End Procurer, State Govt. shall endeavor to provide necessary support to facilitate the connectivity of the plant to STU/CTU substation.

4. BID STRUCTURE

4.1 Bid Package: The bids will be designed in terms of a package. The minimum size of a package should be 50 MW, in order to have economies of scale. Notwithstanding this, on due consideration of availability of land and transmission facility, smaller bid packages can be kept in case of North-Eastern States, Special Category States, and Projects outside Solar Parks. The bidder has to quote for an entire package. The Procurer may also choose to specify the maximum capacity that can be allotted to a single bidder including its Affiliates[1] keeping in mind factors such as economies of scale, land availability, expected competition and need for development of the market.

4.2 Bids in Power/Energy Terms: The Procurer may choose to invite the bids in (a) Power Capacity (MW) terms or (b) Energy Quantity (kWh or million units i.e. MU) terms.

4.3 Bidding Parameters: For procurement of electricity, the Procurer may opt for either **'**Tariff as Bidding Parameter' or 'Viability Gap Funding **(VGF)** as Bidding Parameter'.

4.3.1 Tariff as the Bidding Parameter: In this case, the bidding parameter shall be the tariff quoted by the bidder. The Procurer may select either of the following kinds of tariff based Bidding: (a) fixed tariff in Rs./kWh for 25 (twenty-five) years or more or (b) escalating tariff in Rs./kWh with pre-defined quantum of annual escalations fixed in Rs./kWh and number of years from which such fixed escalation will be provided. The Procurer shall specify that the tariff quoted by the bidder cannot be more than the tariff for grid-connected solar PV power plants, notified by the Appropriate Commission, if any, for the financial year in which the

bids are invited. The Procurer may disclose in the RfS, the prevailing incentives like the Generation Based Incentive (GBI) or such other incentives, to the Solar Power Generators.

4.3.2 VGF as the Bidding Parameter: It involves a mechanism wherein a pre-determined tariff is offered to the Solar Power Generator along with a financial assistance, to enable the Solar Power Generator to supply power at this tariff. For VGF based Bidding, the Procurer shall specify the following before issuance of RfS: (a) Predetermined tariff payable to the selected Solar Power Generator for the duration of the PPA and the Maximum amount of Viability Gap Funding (VGF) for the Solar Power Generator(s). The bidders shall have to submit their bids quoting the VGF support required by them. The bidders who do not want to avail the VGF support, may offer in their bids, a discounted tariff, lower than the pre-determined tariff offered by the Procurer, The Procurer is required to specify a suitable VGF safeguard mechanism in the RfS and the Project agreements, to provide a framework for the VGF disbursement agency for recovery of VGF amounts in case the Project is not developed and/or operated in accordance with the Project agreements, duly balancing market practice in terms of lender's requirements.

5. POWER PURCHASE AGREEMENT

The draft PPA proposed to be entered into with the successful bidder and draft PSA (if applicable) shall be issued along with the RfS. Standard provisions to be incorporated as part of this PPA shall include *inter alia* the following, which, unless otherwise specified herein, shall be provided for, on a back to back basis in the PSA:

5.1. PPA Period: As the PPA period influences the tariff by determining the period over which the investment is returned to the investor/ SPD, longer PPA is favoured for lower tariffs. The PPA period should thus be not less than 25 (twenty-five) years from the date of the Scheduled Commissioning Date **(**SCD). The Solar Power ([1]**Affiliate** in relation to a Company shall mean a person who controls, is controlled by, or is under the common control with such Company. The expression 'control' shall mean the ownership, directly or indirectly, of more than 50% of the voting shares of such Company or right to appoint majority Directors) Generators are free to operate their plants after the expiry of the PPA period in case the arrangements with the land and infrastructure owning agencies, the relevant transmission utilities and system operators so provide. It is hereby clarified that in cases where the Project site is specified by the Procurer to be located either in a Solar Park or otherwise, the responsibility of the Procurers to arrange for the land in terms of Clauses 3.2.1 and 3.2.2 shall be limited for the PPA period.

5.2. Quantum of Power/ Energy to Be Procured: The procurement of power could either be in power (MW) terms or in energy (kWh or Million Units, i.e. MU) terms.

5.2.1. Procurement in Power Terms (MW):

a) In case of procurement in power (MW) terms, the range of Capacity Utilisation Factor (CUF) will be indicated in the bidding documents. Calculation of CUF will be on yearly basis. In case the project generates and supplies energy less than the energy corresponding to the minimum CUF, the Solar Power Generator will be liable to pay to the Procurer, penalty for the shortfall in availability below such contracted CUF level. The amount of such penalty will be in accordance with the terms of the PPA, which shall ensure that the Procurer is offset for all potential costs associated with low generation and supply of power under the PPA, subject to a minimum of 25% (twenty-five per cent) of the cost of this shortfall in energy terms, calculated at PPA tariff.

b) In case the availability is more than the maximum CUF specified, the Solar Power Generator will be free to sell it to any other entity provided first right of refusal will vest with the Procurer(s). In case the Procurer purchases the excess generation, the same may be done at 75% (seventy-five per cent) of the PPA tariff, and provision to this effect shall be clearly indicated in the RfS document.

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[1] Omitted and inserted point (3.2.3) (a) of sub-clause (3.2) of clause (3), vide First amendment (A), 2018.

5.2.2. Procurement in Energy Terms: In case of procurement in energy (kWh or Million Units, i.e. MU) terms, and not in power (MW) terms, the range of permissible capacity of the plant in terms of MW(AC) shall be clearly specified by the Procurer in the RfS. The Procurer will also specify the **Contracted Energy Quantity (CEQ)**, including a minimum supply obligation below which the developer will be required to pay damages to the Procurer and a guaranteed energy offtake upto which the Procurer will be bound to purchase all energy generated and supplied by the developer. Any excess generation shall be treated in the same manner as specified in clause 5.2.1(b).

5.2.3. Repowering: The Solar Power Generators will be free to re-power their plants from time to time during the PPA duration. However, the Procurer will be obliged to buy power only within the range of CUF (or CEQ, as relevant), specified in the PPA. Any excess generation will be dealt as specified in clause 5.2.1(b) of these Guidelines.

5.3. Payment Security: The Procurer shall provide adequate payment security measures, as specified below.

5.3.1. Scenario 1: Direct Procurement by Procurer from Solar Power Generator:

The Procurer shall provide payment security to the Solar Power Generator through:

a) **Revolving Letter of Credit (LC)** of an amount not less than 1 (one) months' average billing from the Project under consideration;

AND,

b) **Payment Security Fund,** which shall be suitable to support payment for at least 3 (three) months' billing of all the Projects tied up with such fund;

c) In addition to a) & b) above, the Procurer may also choose to provide **State Government Guarantee,** in a legally enforceable form, ensuring that there is adequate security to the Solar Power Generator, both in terms of payment of energy charges and termination compensation if any.

5.3.2. Scenario 2: Intermediary-Procurer procures from the Solar Power Generator and sells to the End Procurer:

a) **<u>Payment Security by Intermediary Procurer to the Solar Power Generator:</u>**

The Intermediary Procurer shall provide payment security to the Solar Power Generator through:

i. **Revolving Letter of Credit (LC)** of an amount not less than 1 (one) months' average billing from the Project under consideration;

AND

ii. **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.

b) **<u>Payment Security by End Procurer to Intermediary Procurer:</u>**

The End Procurer shall provide payment security to the Intermediary Procurer through:

i. **Revolving Letter of Credit (LC)** of an amount not less than 1 (one) months' average billing from the Project(s) under consideration;

AND,

ii. **State Government Guarantee,** in a legally enforceable form, such that there is adequate security, both in terms of payment of energy charges and termination compensation if any.*[for the purpose of this clause, the Tri-Partite Agreement (TPA) signed between Reserve Bank of India, Central Government and State Government shall qualify as State Government Guarantee covering the security for payment of energy charges.* The Intermediary Procurer shall ensure that upon invoking this

guarantee, it shall at once, pass on the same to the Solar Power Generator, to the extent the payments to the Solar Power Generator in terms of the PPA are due.

iii. In addition to i) & ii) above, the End Procurer may also choose to provide **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.

It is hereby clarified that the State Government guarantee shall be invoked only after the Intermediary Procurer has been unable to recover its dues under the PPA by means of the Letter of Credit and the Payment Security Fund, if any.

5.4 Force Majeure: The PPA shall contain provisions with regard to force majeure definitions, exclusions, applicability and available relief on account of Force Majeure, as per the industry standards.

5.5. Generation Compensation for Offtake Constraints: The Procurer may be constrained not to schedule power on account of unavailability of the Transmission Infrastructure / Grid or in the eventuality of a Back down.

5.5.1. Offtake constraints due to Transmission Infrastructure / Grid Unavailability:

a) Generation Compensation in offtake constraint due to Transmission Infrastructure not complete/ ready (Transmission constraint): After the scheduled commissioning date, if the plant is ready but the necessary power evacuation/ transmission infrastructure is not ready, for reasons not attributable to the Solar Power Generator, leading to off take constraint, the provision for generation compensation is as follows:

Transmission Constraint	**Provision for Generation Compensation**
If the plant is ready but the necessary power evacuation/ transmission infrastructure is not ready, leading to off take constraint	a) The normative CUF of 19% (nineteen per cent) or committed CUF, whichever is lower, and in cases where the contract is in energy terms, proportionate value of CEQ, for the period of grid unavailability, shall be taken for the purpose of calculation of generation loss. Corresponding to this generation loss, the excess generation by the SPD in the succeeding 3 (three) Contract Years, shall be procured by the Procurer at the PPA tariff so as to offset this loss. b) If the transmission delay is directly attributable to the organization building the transmission network and some penalty is imposed on him, then a part of that penalty may be utilized for compensating the generation loss. The mechanism for compensating the developers will be spelt out in the tender documents. *Contract Year, shall be as defined in PPA.*

However, it is clarified that if the plant is ready before SCD, but the off take is constrained because of inadequate/ incomplete power evacuation infrastructure, no compensation shall be permissible.

b) Generation Compensation in off take constraints due to Grid Unavailability: During the operation of the plant, there can be some periods where the plant can generate power but due to temporary transmission unavailability the power is not evacuated, for reasons not attributable to the Solar Power Generator. In such cases the generation compensation shall be addressed by the Procurer in following manner:

Duration of Grid unavailability	Provision for Generation Compensation
Grid unavailability in a contract year as defined in the PPA: (only period from 8 am to 6 pm to be counted):	***Generation Loss = [(Average Generation per hour during the contract year) × (number of hours of grid unavailability during the contract year)]*** *Where, Average Generation per hour during the contract year (kWh) = Total generation in the contract year (kWh) ÷ Total hours of generation in the contract years.* The excess generation by the SPD equal to this generation loss shall be procured by the Procurer at the PPA tariff so as to offset this loss in the succeeding 3 (three) Contract Years, *Contract Year, shall be as defined in PPA.*

Provided that as an alternative to the mechanism provided above in Clause 5.5.1, the Procurer may choose to provide Generation Compensation, in terms of PPA tariff, for the Generation loss as defined in Clause 5.5.1, and for Grid unavailability beyond 50 hours in a Contract Year as defined in the PPA.

5.5.2. Offtake constraints due to Backdown: The Solar Power Generator and the Procurer shall follow the forecasting and scheduling process as per the regulations in this regard by the Appropriate Commission. The Government of India, as per Clause 5.2(u) of the Indian Electricity Grid Code (IEGC), encourages a status of "must-run" to solar power projects. Accordingly, no solar power plant, duly commissioned, should be directed to back down by a Discom/ Load Dispatch Centre (**LDC**). In case such eventuality of Backdown arises, except for the cases where the Backdown is on account of events like consideration of grid security or safety of any equipment or personnel or other such conditions, the Solar Power Generator shall be eligible for a Minimum Generation Compensation, from the Procurer, in the manner detailed below.

Duration of Backdown	Provision for Generation Compensation
Hours of Backdown during a monthly billing cycle.	***Minimum Generation Compensation =*** ***50% of [(Average Generation per hour during the month) × (number of backdown hours during the month) × PPA Tariff]*** *Where, Average Generation per hour during the month (kWh) = Total generation in the month (kWh) ÷ Total hours of generation in the month*

The Generation Compensation is to be paid as part of the energy bill for the successive month after receipt of Regional Energy Accounts (REA). No Trading Margin shall be applicable on this Generation Compensation. Possible conditions for exclusion of Generation Compensation, on account of Backdown purposes, shall be clearly specified in the RfS and the PPA.

5.6. EVENT OF DEFAULT AND THE CONSEQUENCES THEREOF

While detailed provisions with regard to the event of default of the concerned parties and its resulting consequences shall be detailed in the SBDs, this clause lays down the broad principles of contractually dealing with the default of the Solar Power Generator and the Procurers (excluding the Intermediary Procurer).

5.6.1. Generator Event of Default and the consequences thereof:

a) In the event the Solar Power Generator is unable to commission the plant within the stipulated time period, or fails to supply power in terms of the PPA, or assigns or novates any of its rights or obligations contrary to the terms of the PPA, or repudiates the PPA, or effectuates a change in control or shareholding of its promoters in breach of the provisions of the PPA, or commits any other acts or omissions as laid down in the PPA and is also unable to cure any of the aforesaid within the cure period, as may be provided in the PPA, the Solar Power Generator shall be construed to be in default.

b) Upon being in default, the Solar Power Generator shall be liable to pay to the Procurer, damages, as detailed in the PPA, The Procurer shall have the right to recover the said damages by way of forfeiture of bank guarantee, if any, without prejudice to resorting to any other legal course or remedy.

c) In addition to the levy of damages as aforesaid, in the event of a default by the Solar Power Generator, the lenders shall be entitled to exercise their rights of substitution, in accordance with the substitution agreement provided in the PPA and in concurrence with the Procurers. However, in the event the lenders are unable to substitute the defaulting Solar Power Generator within the stipulated period, the Procurer may terminate the PPA and acquire the Project assets for an amount equivalent to 90% of the debt due, failing which, the lenders may exercise their mortgage rights and liquidate the Project assets.

5.6.2. Procurer Event of Default and the consequences thereof:

a) If the Procurer is in default on account of reasons including inter alia failure to pay the monthly and/or supplementary bills within the stipulated time period or repudiation of the PPA, the defaulting Procurer shall, subject to the prior consent of the Solar Power Generator, novate its part of the PPA to any third party, including its Affiliates within the stipulated period.

b) In the event the aforesaid novation is not acceptable to the Solar Power Generator, or if no offer of novation is made by the defaulting Procurer within the stipulated period, then the Solar Power Generator may terminate the PPA and at its discretion require the defaulting Procurer to either (i) takeover the Project assets by making a payment of the termination compensation equivalent to the amount of the debt due and the 150% (one hundred and fifty per cent) of the adjusted equity as detailed in the PPA or, (ii) pay to the Solar Power Generator, damages, equivalent to 6 (six) months, or balance PPA period whichever is less, of charges for its contracted capacity, with the Project assets being retained by the Solar Power Generator.

In the event of termination of PPA, any damages or charges payable to the STU/ CTU, for the connectivity of the plant, shall be borne by the Procurer.

5.7. CHANGE IN LAW

5.7.1. In the event a Change in Law results in any adverse financial loss/ gain to the Solar Power Generator then, in order to ensure that the Solar Power Generator is placed in the same financial position as it would have been had it not been for the occurrence of the Change in Law, the Solar Power Generator/ Procurer shall be entitled to compensation by the other party, as the case may be, subject to the condition that the quantum and mechanism of compensation payment shall be determined and shall be effective from such date as may be decided by the Appropriate Commission.

5.7.2. In these Guidelines, the term Change in Law shall refer to the occurrence of any of the following events after the last date of the bid submission, including (i) the enactment of any new law; or (ii) an amendment, modification or repeal of an existing law; or (iii) the requirement to obtain a new consent, permit or license; or (iv) any modification to the prevailing conditions prescribed for obtaining an consent, permit or license, not owing to any default of the Solar Power Generator; or (v) any change in the rates of any Taxes which have a direct effect on the Project. However, Change in Law shall not include any

change in taxes on corporate income or any change in any withholding tax on income or dividends.

6. BIDDING PROCESS

6.1 The Procurer shall call for the bids adopting a single stage bidding process to be conducted through Electronic mode (e-bidding). The Procurers may adopt e-reverse auction if it so desires. E-procurement platforms with a successful track record and with adequate safety, security and confidentiality features will be used. In case of a Solar Park specific Project, intimation about the initiation of the bidding process shall be given by the Procurer to the SPPD. The SPPD has to engage actively in the bidding process by providing all the necessary land and infrastructure related details and making the same available in centralized data rooms accessible to bidders.

6.2 The Procurer shall invite the Solar Power Generators to participate in the RfS for installation of Solar Photovoltaic Power Plants in terms of these Guidelines.

6.3 The bidding documents including the RfS and the draft PPA shall be prepared by the Procurer in consonance with these Guidelines and the SBDs. The Procurer shall also arrange the access of the bidders to the drafts of Implementation Support Agreement and land related agreements, in case the Project is required to be set up in a Solar Park.

6.4 The Procurer shall publish the RfS notice in at least two national newspapers and its own website to accord wide publicity.

6.5 The Procurer shall provide opportunity for pre-bid conference to the prospective bidders, and shall provide written interpretation of the tender documents to any bidder which shall also be made available to all other bidders. All the concerned parties shall rely solely on the written communication. Any clarification or revision to the bidding documents shall be uploaded on the website of the Procurer for adequate information. In the event of the issuance of any revision or amendment of the bidding documents, the bidders shall be provided a period of at least 7 (days) therefrom, for submission of bids.

7. RFS DOCUMENT

The standard provisions to be provided by the Procurer in the RfS shall include the following:

7.1. Bid Responsiveness

The bid shall be evaluated only if it is responsive and satisfies conditions including *inter-alia* ~

- bidder or any of its Affiliates is not a willful defaulter to any lender
- there is no major litigation pending or threatened against the bidder or any of its Affiliates which are of a nature that could cast a doubt on the ability or the suitability of the bidder to undertake the Project.

7.2. Qualification requirements to be met by the bidders:

7.2.1. Technical Criteria:

The Government would like to encourage competition by way increased participation. However, in order to ensure proper implementation of the Projects, the Procurer may choose to specify Technical Criteria such as past experience of the bidders etc. Such criteria should be set after an assessment of the number of project developers that are expected to meet the criteria so that an adequate level of competition is achieved.

7.2.2. Financial Criteria:

a) Net-worth:

i. The Procurer shall specify financial criteria in the form of net-worth as a part of the qualification requirement. The net-worth requirement should be at least 20% (twenty per cent) of the CERC Benchmark Capital Cost, if

any, for solar PV power projects for the year in which bids are invited or the estimated project cost.

ii. The net worth to be considered for the above purpose will be the cumulative net-worth of the bidding company or consortium together with the networth of those Affiliates of the bidder(s) that undertake to contribute the required equity funding and performance bank guarantees in case the bidder(s) fail to do so in accordance with the RfS.

iii. It is clarified that the net worth to be considered for this clause will be the total net worth as calculated in accordance with the Companies Act.

b) Liquidity:

It is necessary that the bidder has sufficient cash flow/ internal accruals/ any bank reference to manage the fund requirements for the Project. Accordingly, the Procurer may also stipulate suitable parameters such as annual turnover, internal resource generation, bank references/ line of credit, bidding capacity, etc.

7.3. Quantum of the Earnest Money Deposit (EMD)

Quantum of the Earnest Money Deposit (**EMD**) in the form of a bank guarantee, to be furnished by the bidders.The EMD shall stand forfeited in the event of failure of the Solar Power Generator to execute the PPA within the stipulated time period.

7.4. Compliance of FDI Laws by foreign bidders

In case a Foreign Company is selected as the successful bidder, it shall comply with all the laws and provisions related to Foreign Direct Investment in India.

8. BID SUBMISSION AND EVALUATION

8.1 Formation of consortium by bidders shall be permitted, in which case the consortium shall identify a lead member which shall be the contact point for all correspondences during the bidding process. The Procurer may specify technical and financial criteria, and lock in requirements for the lead member of the consortium.

8.2 The Procurer shall constitute committee for evaluation of the bids (**Evaluation Committee**), with at least three members, including at least one member with expertise in financial matters/bid evaluation.

8.3 The bidders may be required to submit non-refundable processing fee and/or project development fee as specified in the RfS.

8.4 The bidders shall be required to submit separate technical and price bids. The bidders shall also be required to furnish necessary bid-guarantee in the form of an EMD along with the bids.

8.5 The technical bids shall be evaluated to ensure that the bids submitted meet the eligibility criteria set out in the RfS document on all evaluation parameters. Only the bids that meet the evaluation criteria set out in the RfS shall be considered for further evaluation on the price bids.

8.6 To ensure competitiveness, the minimum number of qualified Bidders should be two. If the number of qualified bidders is less than two, even after three attempts of bidding, and the Procurer still wants to continue with the bidding process, the same may be done with the consent of the Appropriate Commission.

8.7 The price bid shall be rejected, if it contains any deviation from the tender conditions. No clarifications shall normally be requested from bidders at this stage.

8.8. Bid evaluation methodology to be adopted by the Procurer for evaluating the bids:

8.8.1. The bid evaluation mechanism shall be as follows, depending upon the tariff structure which has been adopted by the Procurers in terms of these Guidelines:

a) **In the case of Bidding involving Tariff as the parameter**, the comparison of bids shall be on the basis of the bidding criteria as specified in the RfS, i.e. the fixed tariff or the first year tariff. Ranking of the bidders will start from the bidder quoting the "lowest tariff (L1)".

b) **In the case of Bidding involving VGF as the parameter,** the bids shall be evaluated based on VGF support quoted. The bidders will have to submit bids quoting a single positive number in INR required by the bidder as VGF support. The bidders cannot quote negative VGF. The bidders, who quote NIL VGF, may submit their bid by offering a discounted tariff, lower than the pre-determined tariff offered by the Procurer. Ranking of the bidders will start from the bidder quoting the "lowest tariff (L1)" to the bidder quoting "maximum VGF (H1)".

8.9. The detail procedure for evaluation of the bid and selection of the bidder shall be provided for in the RfS.

9. INDICATIVE TIME TABLE FOR BID PROCESS

[B][2] ~~9.1 In the bidding process, a minimum period of 30 (thirty) days shall be allowed between the issuance of RfS documents and the last date of bid submission. The indicative timetable for the bidding process is indicated in Annexure-I. In normal circumstances, the bidding process is likely to be completed in a period of 120 (one hundred twenty) days.~~

~~9.2 The Procurer may give extended timeframe than indicated in the Annexure-I and this shall not be construed as deviation to the Guidelines.~~

9.1. In the bidding process, a minimum period of 22 (twenty two) days shall be allowed between the issuance of RfS documents and the last date of bid submission. The indicative timetable for the bidding process is indicated in Annexure-I. In normal circumstances, the bidding process is likely to be completed in a period of 110 (one hundred ten) days

9.2. The Procurer may give extended timeframe than indicated in the Annexure-I and this shall not be construed as deviation to the Guidelines.[2][B]

10. CONTRACT AWARD AND CONCLUSION

10.1 The PPA shall be signed with the successful bidder/ project company or an SPV formed by the successful bidder.

10.2 After the conclusion of bidding process, the Evaluation Committee constituted for evaluation of RfS bids shall critically evaluate the bids and certify as appropriate that the bidding process and the evaluation has been conducted in conformity to the provisions of the RfS.

10.3 For the purpose of transparency, the Procurer shall, after the execution of the PPA, publicly disclose the name(s) of the successful bidder(s) and the tariff quoted by them together with breakup into components, if any. The public disclosure shall be made by posting the requisite details on the website of the Procurer for at least 30 (thirty) days.

10.4 Subject to provisions of the Act, the distribution licensee or the Intermediary Procurer, as the case, shall approach the Appropriate Commission for adoption of tariffs by the Appropriate Commission in terms of Section 63 of the Act.

11. BANK GUARANTEES

The Solar Power Generator shall provide the following bank guarantees to the Procurer in terms of the RfS and the PPA:

11.1 **Earnest Money Deposit (EMD),** to be fixed by the Procurer [but not to be more than 2% (two percent) of the Solar PV power project cost, as determined by CERC, if any, for the financial year in

[2] Omitted and inserted clause (9) "Indicative Time table for bid Process", vide Second amendment (B), 2019.

which the bids are invited or the estimated project cost], to be submitted in the form of a bank guarantee along with response to RfS.

11.2 [C][3] ~~**Performance Bank Guarantee (PBG),** to be fixed by the Procurer [but not to be more than 4% (four percent), in case of site specified by the Procurer, and 5% (five percent), in case of site selected by the Solar Power Generator, of the Project cost, as determined by CERC, if any, for the financial year in which the bids are invited or the estimated project cost] to be submitted at the time of signing of the PPA. In addition to the other remedies, this PBG can be encashed to recover any damages/dues of the Solar Power Generator in terms of the PPA. It is hereby clarified that the damages/dues recovered by the Intermediary Procurer by encashing the PBG, upon the default of the Solar Power Generator under the PPA, shall be passed on by the Intermediary Procurer to the End Procurer in terms of the PSA.~~

Performance Bank Guarantee (PBG), *to be fixed by the Procurer [but not to be more than 4% (four per cent), in case of site specified by the Procurer, and 5% (five per cent), in case of site selected by the Solar Power Generator, of the Project cost, as determined by CERC, if any, for the financial year in which the bids are invited or the estimated project cost] to be submitted at the time of signing of In addition to the other remedies, this PBG can be encashed to recover any damages/dues of the Solar Power Generator in terms of the PPA. It is hereby clarified that the damages/dues recovered by the Intermediary Procurer by encashing the PBG, upon the default of the Solar Power Generator under the PPA, shall be credited to the Payment Security Fund to be maintained by the Intermediary Procurer under Clause 5.3.2.a.ii. of 'Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects.]*[C]

12. FINANCIAL CLOSURE

[A][4] ~~The Solar Power Generator shall attain the financial closure in terms of the PPA, within 7 (seven) months from the date of execution of the Power Purchase Agreement.~~

~~Failing the aforesaid, the Procurer shall encash the PBG unless the delay is on account of delay in allotment of land by the Procurer in terms of Clause 3.2.1 and Clause 3.2.2 or delay in allotment of land by the Government not owing to any action or inaction on the part of the Solar Power Generator or caused due to a Force Majeure. An extension for the attainment of the financial closure can however be considered by the Procurer, on the sole request of the Solar Power Generator, on payment of a penalty as specified in the PPA. This extension will not have any impact on the SCD. Any penalty paid so, shall be returned to the Solar Power Generator without any interest on achievement of successful commissioning within the SCD.~~

[B][5] ~~*The Solar Power Generator shall attain the financial closure in terms of the PPA, within 12 (twelve) months from the date of execution of the Power Purchase Agreement. However, if for any reason, the time period for attaining financial closure needs to be kept smaller than that provided in these Guidelines, the Procurer can do the same.*~~

~~*Failing the aforesaid, the Procurer shall encash the PBG unless the delay is on account of delay in allotment of land by the Procurer in terms of Clause 3.2.1 and Clause 3.2.2 or delay in allotment of land by the Government not owing to any action or inaction on the part of the Solar Power Generator or caused due to a Force Majeure. An extension for the attainment of the financial closure can however be considered by the Procurer, on the sole request of the Solar Power Generator, on payment of a penalty as specified in the PPA. This extension will not have any impact on the SCD. Any penalty paid so, shall be returned to the Solar Power Generator without any interest on achievement of successful commissioning within the SCD.[3]]*~~[A]

Solar Power Generator shall attain the financial closure in terms of the PPA, within 9 (nine) months from the date of execution of the Power Purchase Agreement, for projects being set up in Solar park, and within 12 (twelve) months from the date of execution of the Power Purchase Agreement, for projects being set up outside Solar park. However, if for any reason, the time period for attaining the financial closure needs to be kept smaller than that provided in these Guidelines, the Procurer can do the same.

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[3] Omitted and inserted sub-clause 11.2 of clause 11, vide Third amendment (C), 2019.
[4] Omitted and inserted clause 12 "Financial Closure", vide First amendment (A), 2018.
[5] Omitted and inserted clause 12 "Financial Closure", vide Second amendment (A), 2019.

Failing the aforesaid, the Procurer shall encash the PBG unless the delay is on account of delay in allotment of land by the Procurer in terms of Clause 3.2.1 and Clause 3.2.2 or delay in allotment of land by the Government not owing to any action or inaction on the part of the Solar Power Generator or caused due to a Force Majeure. An extension for the attainment of the financial closure can however be considered by the Procurer, on the sole request of the Solar Power Generator, on payment of a penalty as specified in the PPA. This extension will not have any impact on the SCD. Any penalty paid so, shall be returned to the Solar Power Generator without any interest on achievement of successful commissioning within the SCD.[4]][B]

13. MINIMUM PAID UP SHARE CAPITAL TO BE HELD BY THE PROMOTER

[C][6] ~~13.1 The successful bidder, if being a single company, shall ensure that its shareholding in the SPV/project company executing the PPA shall not fall below 51% (fifty-one per cent) at any time prior to 1 (one) year from the COD (as defined in Clause 15), except with the prior approval of the Procurer. In the event the successful bidder is a consortium, then the combined shareholding of the consortium members in the SPV/project company executing the PPA, shall not fall below 51% at any time prior to 1 (one) year from the COD, except with the prior approval of the Procurer. However, in case the successful bidder shall be itself executing the PPA, then it shall ensure that its promoters shall not cede control[2] till 1 (one) year from the COD, except with the prior approval of the Procurer. In this case it shall also be essential that the successful bidder shall provide the information about its promoters and their shareholding to the Procurer before signing of the PPA with Procurer.~~

~~13.2 Any change in the shareholding after the expiry of 1 (one) year from the COD can be undertaken under intimation to Procurer.~~

~~13.3 In the event the Solar Power Generator is in default to the lender(s), lenders shall be entitled to undertake **"Substitution of Promoter"** in concurrence with the Procurers.~~

13.1. *The successful bidder, if being a single company, shall ensure that its shareholding in the SPV/project company executing the PPA shall not fall below 51% (fifty-one per cent) at any time prior to 3 (three) years from the COD (as defined in Clause 15), except with the prior approval of the Procurer. In the event the successful bidder is a consortium, then the combined shareholding of the consortium members in the SPV/project company executing the PPA, shall not fall below 51% at any time prior to 3 (three) years from the COD, except with the prior approval of the Procurer. Further, the successful bidder shall ensure that its promoters shall not cede control2 of the bidding company/consortium till 3 (three) years from the COD, except with the prior approval of the Procurer. In this case it shall also be essential that the successful bidder shall provide the information about its promoters and their shareholding to the Procurer before signing of the PPA with Procurer.*

13.2. *Any change in the shareholding after the expiry of 3 (three) years from the COD can be undertaken under intimation to Procurer.*

13.3. *In the event the Solar Power Generator is in default to the lender(s), lenders shall be entitled to undertake **"Substitution of Promoter"** in concurrence with the Procurers.][C]*

14. COMMISSIONING

14.1. Part Commissioning:

Part commissioning of the Project shall be accepted by Procurer subject to the condition that the Minimum Capacity for acceptance of first and subsequent part(s) commissioning shall be 50 MW, without prejudice to the imposition of penalty, in terms of the PPA on the part which is not commissioned. However, the SCD will not get altered due to part-commissioning. Irrespective of dates of part commissioning or full commissioning, the PPA will remain in force for a period of 25 (twenty-five) years from the SCD.

[6] Omitted and inserted clause 13, vide Third amendment (C), 2019.

14.2. Early Commissioning:

The Solar Power Generator shall be permitted for full commissioning as well as part commissioning of the Project even prior to the SCD. In cases of early part-commissioning, till SCD, the Procurer may purchase the generation till SCD, at 75% (seventy-five per cent) of the PPA tariff. However, in case the entire capacity is commissioned prior to SCD, the Procurer may purchase the generation at PPA Tariff.

(The expression 'control' shall mean the ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such Company or right to appoint majority Directors.)

14.3. Commissioning Schedule:

[A][7] ~~The Projects shall be commissioned within a period of 13 (thirteen) months from the date of execution of the PPA. However, Projects with a capacity of 250 MW and above, if being developed outside a Solar park, shall be commissioned within a period of 15 (fifteen) months from the date of execution of the PPA. Delay in commissioning, beyond the Scheduled Commissioning Period shall involve penalties on the Solar Power Generator, as detailed out in PPA. In case of site specified by the Procurer, any delay in handing over land to the Solar Power Generator in accordance with the given timelines, shall entail a corresponding extension in financial closure and scheduled commissioning date, provided that the maximum extension shall be limited to a period of 1 year commencing from the expiry of date of handing over of balance 10% of land in terms of Clause 3.2.1 (a).~~

[B][8] ~~*The Projects shall be commissioned within a period of 21 (twenty one) months from the date of execution of the PPA. However, Projects with a capacity of 250 MW and above, if being developed outside a Solar park, shall be commissioned within a period of 24 (twenty four) months from the date of execution of the PPA. However, if for some reason, the scheduled commissioning period needs to be kept smaller than that provided in these Guidelines, the Procurer can do the same. Delay in commissioning, beyond the Scheduled Commissioning Period shall involve penalties on the Solar Power Generator, as detailed out in PPA. In case of site specified by the Procurer, any delay in handing over land to the Solar Power Generator in accordance with the given timelines, shall entail a corresponding extension in financial closure and scheduled commissioning date, provided that the maximum extension shall be limited to a period of 1 year commencing from the expiry of date of handing over of balance 10% of land in terms of Clause 3.2.1 (a).*~~[5][A]

The projects shall be commissioned, within a period of 15 (fifteen) months from the date of execution of the PPA, for projects being set up in Solar park, and within a period of 18 (eighteen) months from the date of execution of the PPA, for projects being set up outside Solar park. However, if for some reason, the scheduled commissioning period needs to be kept smaller than that provided in these Guidelines, the Procurer can do the same. Delay in commissioning, beyond the Scheduled Commissioning Period shall involve penalties on the Solar Power Generator, as detailed out in PPA. In case of site specified by the Procurer, any delay in handing over land to the Solar Power Generator in accordance with the given timelines, shall entail a corresponding extension in financial closure and scheduled commissioning date, provided that the maximum extension shall be limited to a period of 1 year commencing from the expiry of date of handing over of balance 10% of land in terms of Clause 3.2.1 (a).[6][B]

15. COMMERCIAL OPERATION DATE (COD):

Commercial Operation Date (COD) shall be the date on which the commissioning certificate is issued upon successful commissioning of the full capacity of the Project or the last part capacity of the Project as the case may be.

16. TRANSMISSION CONNECTIVITY

16.2 The Solar Power Plant shall be designed for inter-connection with (a) a Pooling Substation where other projects also inter-connect prior to the STU / CTU substation or, (b) directly with the STU / CTU substation; through a dedicated transmission line at the appropriate voltage level, as specified

[7] Omitted and inserted sub-clause (14.3) of clause 14 "Commissioning", vide First amendment (A), 2018.
[8] Omitted and inserted sub-clause (14.3) of clause 14 "Commissioning", vide Second amendment (B), 2019.

by the Procurer. The entity responsible for the construction of the relevant substation and transmission lines shall be clearly specified in the bidding documents. Depending on the implementation arrangements and design of the evacuation system, the capital costs of the transmission lines and substations prior to the STU / CTU substation may either be directly paid by the Solar Power Generator, or paid by the SPPD or another implementation agency and claimed from the Solar Power Generator as directly attributed or apportioned and recovered in lump sum or as payments over the years.

16.2 In cases, where the Project site is not specified by the Procurer, the responsibility of getting Transmission Connectivity and Access to the transmission system owned by the STU / CTU will lie with the Solar Power Generator and shall be at the cost of Solar Power Generator.

16.3 In cases, where the Project site specified by the Procurer is not in a Solar Park, the Procurer could choose to require the Solar Power Generator to bear the responsibility and cost of getting Transmission Connectivity and Access.

16.4 In cases where the Procurer specifies a solar park where the Project is to be located, penalties, fines and charges imposed by the CTU/ STU under any statute or regulation in relation to delay in commissioning of Project shall be payable by the Solar Power Generator to the extent the delay is attributable to the Solar Power Generator and the balance by the Procurer.

16.5 The Metering Point, which is the point at which energy supplied to the Procurer shall be measured, shall be the low voltage bus bar of the STU / CTU substation. In case of solar parks, the metering point is the final evacuation STU / CTU substation with which the internal transmission from all the pooling substations is connected. All expenses including wheeling charges and losses between the Project and the Metering Point shall be paid by the Solar Power Generators without any reimbursement by the Procurer. All expenses including wheeling charges and losses in relation to the transmission and distribution beyond the Metering Point shall be borne by the Procurers. Arrangements shall be put in place for either the CTU / STU to bill these expenses directly to the Projects in proportion to their capacity or the normative generation from Projects sharing common infrastructure or to bill the SPPD which may recover the same directly from the Procurer or from the Solar Power Generator who may in turn seek re-imbursement from the Procurer.

17. TECHNICAL SPECIFICATIONS

Procurers shall promote commercially established and operational technologies to minimize the technology risk and to achieve the commissioning of the Projects. The detailed technical parameters, for Solar PV Power Projects to be selected, shall be specified by MNRE from time to time. The current parameters are indicated in Annexure II.

18. DEVIATION FROM PROCESS DEFINED IN THE GUIDELINES

In case there is any deviation from these Guidelines and/or the SBDs, the same shall be subject to approval by the Appropriate Commission. The Appropriate Commission shall approve or require modification to the bid documents within a reasonable time not exceeding 90 (ninety) days.

19. ARBITRATION

In the event CERC is the Appropriate Commission, any dispute arises claiming any change in or regarding determination of the tariff or any tariff related matters, or which partly or wholly could result in change in tariff, such dispute shall be adjudicated by the CERC. All other disputes shall be resolved by arbitration under the Indian Arbitration and Conciliation Act, 1996. In the event SERC is the Appropriate Commission, then all disputes shall be adjudicated by the SERC or shall be referred for arbitration by the SERC.

20. CLARIFICATION AND MODIFICATION TO GUIDELINES

C[[9] ~~If any difficulty arises in giving effect to any provision of these Guidelines or interpretation of the Guidelines or modification to the Guidelines, Ministry of New & Renewable Energy is empowered to do the~~

[9] Omitted and inserted clause 20, vide Third amendment (C), 2019.

~~same in consultation with Ministry of Power. The decision in this regard shall be binding on all the parties concerned.~~

If any difficulty arises in giving effect to any provision of these Guidelines or interpretation of the Guidelines or modification to the Guidelines, Ministry of New & Renewable Energy is empowered to do the same, with the approval of Minister, New & Renewable Energy. The decision in this regard shall be binding on all the parties concerned.][c]

SHALINI PRASAD, Addl. Secy.

Annexure I - Time Table for Bid Process

~~B[10 Sl. No.~~	~~Event~~	~~Elapsed Time from Zero date~~
~~1.~~	~~Date of issue of RfS Project specific draft Power Purchase Agreements and other draft Project Agreements, and the PSA, if applicable.~~	~~Zero date~~
~~2.~~	~~Bid clarification, conferences, opening of online Data Room to share all Project specific details including site, if specified by Procurer etc. & revision of RfS~~	~~**~~
~~3.~~	~~RfS Bid submission~~	~~30 days~~
~~4.~~	~~Evaluation of bids and issue of LOI~~	~~120 days~~
~~5.~~	~~Signing of PPA and the PSA (if applicable).~~	~~150 days~~

Sl. No.	**Event**	**Elapsed Time from Zero date**
1.	Date of issue of RfS Project specific draft Power Purchase Agreements and other draft Project Agreements, and the PSA, if applicable.	Zero date
2.	Bid clarification, conferences, opening of online Data Room to share all Project specific details including site, if specified by Procurer etc. & revision of RfS	**
3.	RfS Bid submission	22 days
4.	Evaluation of bids and issue of LOI	110 days
5.	Signing of PPA and the PSA (if applicable).	140 days[7]]B

** In case of any change in RfS document, the Procurer shall provide the bidders additional time in accordance with clause 6.5 of these Guidelines.

Note: It is clarified that if the Procurer gives extended time for any of the events in the bidding process, on account of delay in achieving the activities required to be completed before the event, such extension of time shall not in any way be deviation from these Guidelines.

[10] Omitted and inserted annexure-I, vide Second amendment (B), 2019.

Annexure II - Technical Requirements for Grid Connected Solar PV Power Plants

The following are some of the technical measures required to ensure quality of equipment used in grid connected solar photovoltaic power projects:

1. SPV Modules

1.1. The SPV modules used in the grid solar power projects must qualify to the latest edition of any of the following

IEC PV module qualification test or equivalent BIS standards.

Crystalline Silicon Solar Cell Modules	IEC 61215
Thin Film Modules	IEC 61646
Concentrator PV modules	IEC 62108

1.2. In addition, SPV modules must qualify to IEC 61730 for safety qualification testing at 1000V DC or higher. The modules to be used in a highly corrosive atmosphere throughout their lifetime must qualify to IEC 61701.

2. Power Conditioners/ Inverters

The Power Conditioners/ Inverters of the SPV power plants must conform to the latest edition of IEC/ equivalent Standards as specified below:

Efficiency Measurements	IEC 61683
Environmental Testing	IEC 60068 -2/IEC 62093
EM Compatibility (EMC)	IEC 61000-6-2, IEC 61000-6-4 & other relevant parts of IEC 61000
Electrical safety	IEC 62103/ IEC 62109-1&2
Anti-Islanding Protection	IEEE 1547/IEC 62116/UL 1741 or equivalent BIS Standards

3. Other Sub-systems/ Components:

Other subsystems/components used in the SPV power plants (Cables, Connectors, Junction Boxes, Surge Protection Devices, etc.) must also conform to the relevant international/national Standards for Electrical Safety besides that for Quality required for ensuring Expected Service Life and Weather Resistance. It is recommended that the Cables of 600-1800 Volts DC for outdoor installations should comply with the BS EN 50618:2014/2pfg 1169/08.2007 for service life expectancy of 25 years.

4. Authorized Test Centers

The PV modules/Power Conditioners deployed in the power plants must have valid test certificates for their qualification as per above specified IEC/ BIS Standards by one of the NABL Accredited Test Centers in India. In case of module types like Thin Film and CPV / equipment for which such Test facilities may not exist in India at present, test certificates from reputed ILAC Member Labs abroad will be acceptable.

5. Warranty

PV modules used in grid solar power plants must be warranted for output wattage, which should not be less than 90% (ninety per cent) at the end of 10 (ten) years and 80% (eighty per cent) at the end of 25 (twenty-five) years.

6. Identification and Traceability

Each PV module used in any solar power project must use a RF identification tag. The following Information must be mentioned in the RFID used on each module (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions.)

i. Name of the manufacturer of PV Module
ii. Name of the Manufacturer of Solar cells
iii. Month and year of the manufacture (separately for solar cells and module)
iv. Country of origin (separately for solar cells and module)
v. I-V curve for the module at Standard Test Condition (1000 W/m^2, AM 1.5, 25^0C)
vi. Wattage, I_m, V_m and FF for the module
vii. Unique Serial No and Model No of the module
viii. Date and year of obtaining IEC PV module qualification certificate
ix. Name of the test lab issuing IEC certificate
x. Other relevant information on traceability of solar cells and module as per ISO 9000

Site owners would be required to maintain accessibility to the list of Module IDs along with the above parametric data for each module.

7. Performance Monitoring:

All grid solar PV power projects must install necessary equipment to continuously measure solar radiation, ambient temperature, wind speed and other weather parameters and simultaneously measure the generation of DC power as well as AC power generated from the plant. They will be required to submit this data to Procurer and MNRE or any other designated agency on line and/or through a report on regular basis every month for the entire duration of PPA. In this regard they shall mandatorily also grant access to Procurer and MNRE or any other designated agency to the remote monitoring portal of the power plants on a 24X7 basis.

8. Safe Disposal of Solar PV Modules:

The developers will ensure that all Solar PV modules from their plant after their 'end of life' (when they become defective/ non-operational/ non-repairable) are disposed of in accordance with the "e-waste (Management and Handling) Rules, 2011" notified by the Government and as revised and amended from time to time.