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Government of India
Ministry of New & Renewable Energy
(Grid Solar Power Division)

Dated : 22nd March, 2016

Sub : Comments invited on Draft Guidelines for Tariff Based Competitive Bidding Process for Grid Connected Solar PV Power Projects

"MNRE invites comments of stakeholders on Draft Guidelines for Tariff Based Competitive Bidding Process for Grid Connected Solar PV Power Projects.

The Feedback/Views/Comments may be sent, **latest by 30th April, 2016** to:

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GOVERNMENT OF INDIA

MINISTRY OF NEW AND RENEWABLE ENERGY

Draft Guidelines for Tariff Based Competitive Bidding Process for Grid Connected Solar PV Power Projects

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

1. Introduction

1.1. Power from Renewable Energy Sources in India

With a view to addressing India's energy security challenge and to promote ecologically sustainable growth of power for making India's economic development energy-efficient, it is considered imperative to pioneer a graduated shift from economic activity based on fossil fuels to one based on non-fossil fuels and from reliance on non-renewable and depleting sources of energy to renewable sources of energy.

India is endowed with vast solar energy potential. About 5,000 trillion kWh per year energy is incident over India's land area with most parts receiving 4-7 kWh per sq. m per day. Solar energy also provides the ability to generate power on a distributed basis and enables rapid capacity addition with short lead times. From an energy security perspective, solar energy is the most secure of all sources, since it is abundantly available. It is also clear that given the large proportion of poor and energy un-served population in the country, every effort needs to be made to exploit the relatively abundant sources of solar energy available to the country.

1.2. Objectives of the Guidelines

Promotion of competition in the electricity industry in India is one of the key objectives of the Electricity Act, 2003. 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.

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."

These guidelines have been framed to cover grid connected Solar PV Power Projects under the above provisions of section 63 of the Act.

The specific objectives of these guidelines are as follows:

1. To facilitate the scale up of solar capacity addition and achieve economies of scale
2. Promote competitive procurement of electricity from Renewable Energy Sources (Solar) by distribution licensees;
3. Facilitate transparency and fairness in procurement processes;
4. Facilitate fulfillment of Renewable Purchase Obligation (RPO) requirement of the obligated entities;
5. Facilitate reduction of information asymmetries for various Bidders;
6. Protect consumer interests by facilitating competitive conditions in procurement of electricity;
7. Enhance standardization and reduce ambiguity and hence time for materialization of projects;
8. Provide flexibility to sellers on internal operations while ensuring certainty on availability of power and tariffs for buyers.
9. Bring uniformity in tendering by various agencies including State utilities which will facilitate investment
10. Ensure bankability.

2. Scope of the Guidelines

2.1. 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. The National Tariff Policy, 2016 formulated by the Ministry of Power, has specific guidance on purchase tariff for power generated from renewable energy sources:

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 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…."

2.2. These guidelines are being issued under the provisions of Section 63 of the Electricity Act, 2003 for long term procurement of electricity from grid connected solar PV power projects through competitive bidding by the Central Government/ State Governments, Central PSUs/ State PSUs/ other Public Sector Organisations under the Central or State Governments, distribution licensees, as 'Procurer'.

Explanation:

For the purpose of these Guidelines, the term 'Procurer(s)' shall mean, as the context may require, Central Government/ State Governments, Central PSUs/ State PSUs/ other Public Sector Organisations, under the Central or State Governments, distribution licensees, or their authorized representative or a Special Purpose Vehicle (SPV) constituted for the purpose of signing the Power Purchase Agreement.

In cases, where the 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 "Procurer" for the purpose of these guidelines. Once the tendering/ bidding process is over, the actual agency/ entity signing the PPA shall be the "Procurer".

In cases where the "Procurer", as defined above, is essentially an intermediary trader, buying power from the generators and selling the same to a distribution licensee, such distribution licensee shall be the "End Procurer" for the purpose of these guidelines. In such cases, as long as the Procurer (Intermediary) 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.

2.3. For each tender, the procurer will specify an Officer-in-Charge, who will be having overall responsibility for the successful implementation of the said tender. Procurer will also specify a Principle Officer-in-Charge, who shall be an officer higher in rank to

the Officer-in-Charge and empowered to review any decision or order issued by the Officer-in-Charge or to take decisions beyond the scope of the Officer-in –Charge.

2.4. Location of Solar Power Projects:

A. Park specified tenders:

(i) Entire tendered quantity can be located in the Solar Parks in the State;

(ii) Part of tendered quantity can be located in Solar Park and part outside Solar Park; and

B. Tenders where Park is not specified

(i) Entire tendered quantity can be located outside the Solar Park.

(ii) Developers will be free to buy or lease land in any available park.

In case of solar projects proposed to be set up in the solar parks, the bidder will approach the **Solar Power Park Developer (SPPD),** for allotment of land and connectivity. The **SPPD shall** provide the details of land and the timelines for availability, allotment, possession and connectivity for the projects before submission of bids. The **SPPD** will provide the Cost of Land, Annual Charges, and Connectivity Charges etc. which the developer would take into consideration in their bid.

Procurer will indicate the name of the park and the plot sizes as well as other details in the tender document.

After the PPA is signed, it will be the duty of SPPD to provide land and connectivity as promised in writing. Solar Park Developer (SPD) shall enter into an Implementation Support Agreement with SPPD / State Agency for Land & associated infrastructure for development of the Project inside the Solar Park, Connectivity with the STU / CTU System and all clearances related thereto shall be the responsibility of the SPPD / State Agency / SPD. SPPD will hand over land to developer within 3 months of signing of PPA. He will however be given access to the land, co-ordinates of the land allotted to him and other details immediately.

The developers will be given extra time if there is any delay in giving possession of land and connectivity equivalent to delay. There will however, be no compensation or LD or deemed generation for any delay in Solar park. Officer-in Charge will have freedom to extend time by up to 3 months in case of delay in land allotment, transmission facility, Infrastructure facilities etc. Extension shall be subject to certification from SPPD or respective State Implementing Agency justifying reasons for delay. If extension is required to be given beyond 3 months due to delay in park development or evacuation, the competent authority to take decision in this regard will be the Principle Officer-in-Charge for the concerned tenders.

2.5. Unless explicitly specified in these guidelines, the provisions of these guidelines shall be binding on the 'Procurer' and 'End Procurer'.

3. Tariff Structure

3.1. Types of Tariff Structure:

For procurement of electricity under these guidelines, tariff shall be paid and settled for each payment period (not exceeding one month). The procurer may choose to have any one , or a mix of, of the following as tariff structure:

(i) Fixed levellised tariffs for 25 years or more;

(ii) Escalating Tariff with defined escalation in tariff in paise/kWh;

(iii) Reducing Tariff with defined reduction in tariff in paise/kWh;

(iv) Different tariffs for different blocks of periods

(v) Tariff starting at certain value, increasing each year by a certain pre-determined quantum and settling at a maximum value for the balance period of the PPA.

The comparison of bids shall be only on the basis of levellised tariffs for the full PPA period.

3.2. Bids in Power/ Energy Terms:

Procurer may choose to invite bids in

(a) Power Capacity (MW) terms

(b) Energy Quantity (kWh) terms.

Further, the bids may be invited with tariff in

(i) INR with foreign exchange risk borne by the seller, or
(ii) Foreign Currency or
(iii) INR but linked to Foreign Currency/ Basket of Currencies or
(iv) a mix of the above.

3.3. Capacity Utilisation Factor (CUF)

Calculation of Capacity Utilisation Factor (CUF) will be on yearly basis. The range of CUF, will be indicated in the Bidding Document. In case availability is less than the range of CUF indicated, penalty at the rate to be specified in the bidding document by the procurer(s) shall be applicable for the shortfall in availability below such predetermined level. However, this penalty can only be imposed if the concerned State Electricity Regulatory Commission imposes such penalty on the distribution licensee for shortfall in RPO compliance for the concerned period. In case the availability is more than the maximum CUF range specified, seller 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 Average Pooled Purchase Cost (APPC) or the PPA tariff, whichever is lower, and provision to this effect shall be clearly indicated in the RfS document.

3.4. Repowering:

The developers 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 CUF specified in the PPA. Any excess generation will be dealt as specified in clause no. 3.3 regarding CUF.

3.5. Power Purchase Agreement (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 years. The developers are free to operate their plants after the expiry of 25 years PPA period. However, any extension of the PPA beyond 25 years shall be through mutual agreement between the solar power developer and the Procurer. Solar power developers may like to take land for longer period, preferably 40 years, in order to be able to run the plant beyond 25 years.

3.6. Procurement in Energy terms:

In case of procurement in energy (kWh) terms, and not in power (MW) terms, the CUF as mentioned in above clauses, may be replaced with **"Contracted Energy Quantity (CEQ)"** and all the provisions regarding the contracted CUF, acceptable range of CUF, treatment of generation below and in excess of the acceptable range of CUF shall be similarly applicable for CEQ.

3.7. Other modalities for Bidding process:

Notwithstanding the tariff structure provided at clause 3.1, the bidding process for procurement of power from renewable energy sources may also be carried out on the basis of the following:

i) Discount offered on the **Benchmark Tariff**

where, **Benchmark Tariff** shall be lower of the
(a) tariff fixed by State Electricity Regulatory Commission (SERC) for the State where the projects are to be setup;

And

(b) Central Electricity Regulatory Commission (CERC), as on the last date of receipt of bid.
In case SERC has not fixed any tariff at the time of tendering then only CERC tariff shall be considered as Benchmark Tariff; **or**

ii) Reverse bidding on Benchmark VGF support or discounted tariff (in case of zero VGF): The tariff payable to the Project developer for the entire duration of the PPA and upper limit for VGF shall be fixed by Procurer before the issuance of RfP. The Bidders will have to submit bids quoting a single VGF. Bidders who don't want to avail VGF, can submit their bid by offering discount in tariff fixed by Procurer..

4. Preparation for Inviting Bids

4.1. Procurer will fix the tendered quantity in power (MW) terms or energy (kWh) terms, and decide the procurement mechanism as mentioned in para 2.2 above.

4.2. The Bidding Documents shall be prepared in accordance with these guidelines.

4.3. **(I) In case tendered quantity is located outside the solar park**, to ensure serious participation in the bidding process and timely completion of commencement of supply of power, the Bidder, should be required to submit the following documents, in support of having completed specific actions for project related activities in respect of matters mentioned in (a) to (e) below, within the time period as specified in the Bidding Document from the date of signing of PPA.

a) **Land acquisition:** Necessary documents/ Lease Agreement to establish possession of land in the name of the Project Developer of the required land

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

c) **Forest Clearance (if applicable) for the land for the Power Project**

d) **Approval from the concerned Authority (if applicable) for Water required for the Power Project**

e) **A letter from State Transmission Utility (STU)/ Central Transmission Utility (CTU) confirming technical feasibility of connectivity of plant to STU/ CTU substation**

In case of supply being proposed from an existing power station, the Bidder should submit evidence in the form of a declaration sent to RLDC/SLDC, as the case may be, in support of commercial operation of the power station.

(II) In case tendered quantity is located in the solar park, 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 indicated below have been initiated before issuance of RfS and to be completed before the signing of PPA by the Procurer:

a) **Land acquisition:** Necessary document/ Lease Agreement to establish possession of land of the required land

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

c) **Forest Clearance (if applicable) for the land for the power project.**

d) **Approval from the concerned Authority (if applicable) for Water required for the power project**

e) **Requisite solar radiation, hydrological, geological, meteorological and seismological data etc. necessary for preparation of Detailed Project Report (DPR), where applicable:** The data should be made available to the Bidders during the RFP stage i.e. at least 30 days prior to the submission of the RFP Bid. However, any such data/ report will only be indicative in nature and bidders are required to do their due diligence before submission of bid. The Procurer shall in no way be responsible for any loss or damages arising out of the use of the data provided by the Procurer.

5. Qualification Criteria for Short-Listing of Bids/ Projects

5.1. Technical Criteria:

Procurers shall promote only 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 are indicated in Annexure II. However, the Procurer may fix Technical Criteria from time to time.

There will be a list of approved suppliers /vendors of material / equipment for solar PV power plants along with approved products, which will be maintained by an agency designated by Ministry of New & Renewable Energy.

5.2. Connectivity with the Grid

i. The Solar Power Plant shall be designed for inter-connection with the Pooling Substation at the Solar Park or STU / CTU substation as applicable through dedicated transmission line / cable at the appropriate voltage level, as specified by the Procurer..

In case the Project is being set – up on Land other than at Solar Park, the Solar Power Developer shall submit a letter from the STU / CTU at the time of financial closure confirming technical feasibility of connectivity of plant to STU / CTU substation.

ii. The entire cost of Transmission from the project up to the interconnection point

including cost of construction of line, wheeling charges, losses etc. will be borne by the Project Developer and will not be reimbursed by Procurer or met by the STU / CTU.

iii. The responsibility of getting Transmission Connectivity and Access to the transmission system owned by the STU / CTU will lie with the Project Developer and shall be at the cost of SPD.

iv. The Solar Power Developer shall not be entitled to any deemed generation in case of any delay in connectivity to the Project.

v. Solar Power Park Developer will provide inter connection facility close to the park at voltage level which will be specified. The developer will have to connect to that point at his cost.

vi. CTU/STU shall endeavor to match the commissioning of the transmission system with the commissioning of the solar projects.

vii. Any transmission line constructed by CTU for Solar Park(s) will be construed as Inter-State Transmission System ISTS). If ISTS network is used, minimum 10% power should flow out of the State.

6. Mechanism of Operation:

The mechanism of operation of this model shall be as enumerated below:

6.1. Minimum and maximum project size will be decided by the procurer and mentioned in the RfS document.. The maximum capacity for single bidder or company of group of companies may be fixed by the Procurer as in accordance with land availability, expected competition and States' views, etc. In case of situation (i) as given in para 2.2, the entire quantity to be bid out will be divided into projects of equal sizes. In case equal sizes of projects are not possible, then it may be grouped in 2 to 5 sizes. In case of situations of (ii) or (iii) under para 2.2, range of sizes may be specified with minimum being specified by the procurer.. The Project Capacity in MW is the installed Capacity of the Power Plant / Maximum Power Output (AC) from the Solar Power Project which can be scheduled at the Delivery Point/ Inter-connection point during any time block of the day.

6.2. The bidding will be conducted through e-bidding. It will be based on fixed levellised tariffs. The developers will submit bids quoting a fixed levellised tariff for the entire project duration, as specified by the procurer, which should not be less than 25 years. They will then be committing to sell power from their plants to Procurer at the quoted

tariff over the period specified by the procurer, which should not be less than 25 years.

6.3. The selection of bids will be done based on the tariff quoted by the bidders. Selection will be based on lowest quoted levellised tariffs.

6.4. The bidders will be free to avail fiscal incentives like Accelerated Depreciation, Concessional Customs and Excise Duties, Tax Holidays, etc. as available for such projects. The same will not have any bearing on comparison of bids for selection. As equal opportunity is being provided to all bidders at the time of tendering itself, it is up to the bidders to avail various tax and other benefits. No claim shall arise on Procurer for any liability if bidders are not able to avail fiscal incentives and this will not have any bearing on the discovered tariff.

7. Bidding Process

7.1. The bidding may be conducted through Electronic mode (e-bidding) and reverse auction mode.

7.2. Procurer or authorized representative shall prepare bid documents (RfS) in line with these guidelines.

7.3. Procurer will fix the tendered quantity and decide the procurement mechanism as mentioned in para 2.2 above. Procurer will divide the entire tendered quantity in lot sizes. These Guidelines provides for deployment of only Solar PV Technology Projects. However, the selection of projects would be technology agnostic and crystalline silicon or thin film or CPV, with or without trackers can be installed.

Under the Guidelines, the developer has the option of Leasing Solar Plant equipment from Foreign parent/affiliate.

7.4. The Bidding Documents shall be prepared in accordance with these guidelines. Procurer shall invite project developers to participate in the Request for Selection (RfS) for installation of Solar Photovoltaic Power Plants on Build Own Operate (B-O-O) basis under these Guidelines. The Bidder shall submit the RfS to Procurer as per Schedule notified by Procurer. In such cases, intimation shall be sent by the Procurer to the appropriate Regulatory Commission about initiation of the bidding process The Bidder can submit bids under two separate categories as per provisions under Clause 6.4. The Bidder shall submit one single application in the prescribed format detailing all projects for which the Bidder is submitting the application.

7.5. The Procurer shall publish a RfS notice in at least two national Newspapers and company website to accord wide publicity. For the purpose of issue of RfS minimum conditions to be met by the Bidder shall be specified by the Procurer in the RfS notice.

7.6. Procurer shall provide only written interpretation of the tender document to any Bidder and the same shall be made available to all other Bidders. All parties shall rely solely on the written communication. The clarification/revised-bidding document shall be uploaded on the website of the Procurer informing about the deviations and clarifications. Wherever revised bidding documents/amendments are issued, the Procurer shall provide Bidders at least fifteen (15) days after issue of such documents for submission of bids.

7.7. The standard documentation to be provided by the Procurer in the RfS shall include:

i. Definitions of Procurer's requirements including:

a) Quantum of electricity proposed to be bought in MW. Procurer may also provide the bidders the flexibility to bid for a part of the tendered quantity, subject to a given minimum quantity. Bid capacity offered by the bidder shall have to be constant for the entire contract period. Bucket filling will be done based on the ranking of bidders.;

b) Term of contract proposed: As far as possible, it is advisable to go for contract coinciding with the life of the Project;

c) Normative availability requirement to be met by the Seller;

d) Expected date of commencement of supply;

e) Point where electricity is to be delivered;

f) Qualification requirements to be met by the Bidder;

g) Structure of tariff to be detailed by Bidders;

ii. **Payment security to be made available by the Procurer:**

Adequate payment security shall be made available to the Bidders. The payment security may constitute:

a) Letter of Credit (LC)

b) Letter of Credit (LC) backed by credible escrow mechanism.

In the case the seller does not realize full payment from the Procurer by the due date as per payment cycle, the seller may after seven (7) days, take recourse to payment security mechanism by encashing the LC to the extent of short fall or take recourse to escrow mechanism. The Procurer shall restore the payment security mechanism prior to the next date of payment. Failure to realize payment even through payment security mechanism shall constitute an event of

payment default.

iii. **Bid evaluation methodology to be adopted by the Procurer for evaluating the bids**.

a) In case of bidding process being carried out on the basis of clause 7.1, the bids shall be evaluated based on lowest quoted levellised tariffs.

b) In case of bidding process being carried out on the basis of clause **7.5.(i)**, the tariff arrived after discount offered on the Benchmark tariff will be fixed for the term of the PPA.

c) In case of bidding process being carried out on the basis of clause **7.5.(ii)**, the bids shall be evaluated based on quoted VGF and quoted discounted tariff. Priority should be given to the discounted tariff bids over VGF bids and ranking of the bidders shall be done accordingly.

iv. The RfS shall provide the maximum period within which the selected Bidder must commence supplies after the PPA becomes effective, subject to the obligations of the Procurer being met. The model PPA which forms a part of the RFP documents shall also specify the liquidated damages that would apply in the event of delay in supplies.

v. Period of validity of offer of Bidder;

vi. Other technical, operational and safety criteria to be met by Bidder, including the provisions of the IEGC/ State Grid Code, relevant orders of the Appropriate Commission, etc., as applicable.

7.8. Model PPA proposed to be entered with the selected Bidder which shall include necessary details on:

- Term of contract and quantum of power to be procured
- Risk allocation between parties;
- Technical requirements, as may be required;
- Force majeure clauses as per industry standards;
- Default conditions and cure thereof, and penalties;
- Payment security proposed to be offered by the Procurer.
- **Arbitration:** Where 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 Appropriate Commission. All other disputes shall be resolved by arbitration under the Indian Arbitration and Conciliation Act, 1996.

The model PPA proposed in the bidding documents may be amended based on the inputs received from the interested parties, and shall be uploaded on the website of the Procurer.

8. Bid Submission and Evaluation

8.1. To ensure competitiveness, the minimum number of qualified Bidders should be at least two other than any affiliate company or companies of the Procurer. If the number of qualified Bidders is less than two, and Procurer still wants to continue with the bidding process, the same may be done with the consent of the Appropriate Commission.

8.2. Formation of consortium by Bidders shall be permitted. In such cases the consortium shall identify a lead member and all correspondence for the bidding process shall be done through the lead member. The Procurer may specify technical and financial criteria, and lock in requirements for the lead member of the consortium, if required.

8.3. The Procurer shall constitute committee for evaluation of the bids (Evaluation Committee) with at least one member external to the Procurer's organization and affiliates. The external member shall have expertise in financial matters / bid evaluation. The Procurer shall reveal past associations with the external member - directly or through its affiliates - that could create potential conflict of interest.

8.4. **Processing Fee**: The procurer(s) may specify processing fee as deemed fit by them in the RfS.

8.5. Bidders shall be required to submit separate technical and price bids. Bidders shall also be required to furnish necessary bid-guarantee along with the bids. Adequate and reasonable bid-guarantee shall be called for to eliminate non-serious bids. The bids shall be opened in the presence of the representatives of Bidders desiring to participate.

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

8.7. The price bid shall be rejected, if it contains any deviation from the tender conditions for submission of price bids.

8.8. Short-listing of Projects

For selection of projects, Procurer shall evaluate only those applications which are received by the appointed date and time at the Head Office of Procurer. Procurer will evaluate the Projects for short listing Projects/ Developers based on the qualification criteria specified under the Guidelines and all the projects meeting the criteria shall be short-listed by Procurer.

8.9. Selection of Projects based on Applicable Tariff

The selection of Projects shall be done through e-bidding as detailed below:

(A) Procedure for situation (i) (para 2.2): The total quantity in MW will be divided into projects of same or different sizes (e.g. 500 MW will be divided into 10 projects of 50 MW each. It could be different sizes also like that 140MW may have 4 projects of 25 MW and 4 projects of 10 MW each)

The bidders will give technical as well as financial bids together electronically for which Procurer will use an appropriate platform. After technical bids are evaluated, financial bids will be opened for the bidders who qualify on the bid opening date. The bidders can bid for any numbers of projects. They will however have to show net worth (if applicable) for the quantity allotted. The procurer may also choose to specify the maximum number of projects that can be allotted to single bidder. The procurer may also choose to specify the total capacity projects to be allotted to a Company including its Parent, Affiliate or Ultimate Parent-or any Group Company. The detail procedure for evaluation of the bid and selection of the bidder shall be developed by Procurer.

(B) Procedure for situation (ii) & (iii) (para 2.2): The bids will be arranged in ascending order of tariff bids received. The bid with lowest tariff will be marked L1. The detail procedure for evaluation of the bid and selection of the bidder shall be developed by Procurer.

8.10. The Bidder, who has quoted lowest levellised tariff as per evaluation procedure, shall be considered for the award. The Evaluation Committee shall have the right to reject all price bids if the rates quoted are not aligned to the prevailing market prices.

9. Deviation from Process Defined in the Guidelines

In case there is any deviation from these guidelines, the same shall only be with the prior approval of the Ministry of New & Renewable Energy (MNRE). MNRE shall decide on the modifications to the bid documents within a reasonable time not exceeding 90 days.

10. Removal of Difficulties

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 Power is empowered to do the same in consultation with Ministry of New & Renewable Energy. The decision in this regard shall be binding on all the parties concerned.

11. Sharing of CDM Benefits

The proceeds of carbon credit from approved CDM project shall be shared between generating company and concerned beneficiaries in the following manner, namely

d) 100% of the gross proceeds on account of CDM benefit to be retained by the project developer in the first year after the date of commercial operation of the generating station;

e) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.

The above shall be in consonance with the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulation, 2012, as amended from time to time.

12. Time Table for Bid Process

In the bidding process, a minimum period of 45 days shall be allowed between the issuance of RFP documents and the last date of bid submission. The 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 days.

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

13. Contract Award and Conclusion

13.1. The PPA shall be signed with the selected Bidder/ SPV consequent to the selection process in accordance with the terms and conditions as finalized in the RfS bid documents.

13.2. After the conclusion of bidding process, the Evaluation Committee constituted for evaluation of RfS bids shall provide appropriate certification on conformity of the bidding process evaluation according to the provisions of the RfS document. The Procurer/ Authorized Representative shall provide a certificate on the conformity of the bidding process to these guidelines.

13.3. For the purpose of transparency, the Procurer shall make the bids public by indicating all the components of tariff quoted by all the Bidders, after signing of the PPA or PPA becoming effective, whichever is later. While doing so, only the name of the successful Bidder shall be made public and details of tariffs quoted by other Bidders shall be made public anonymously. The Procurer shall also make public the PPA signed in accordance with clause 13.1.

13.4. For above purpose, full details shall be posted on the website of the Procurer for at least thirty days.

13.5. The signed PPA along with the certification certificates provided by the evaluation committee and by the Procurer as provided in clause 13.2 shall be forwarded to the Appropriate Commission for adoption of tariffs in terms of Section 63 of the Act.

14. Other Provisions

14.1. Role of State Nodal Agency

It is envisaged that the Agency appointed by the State Govt. shall act as a State Nodal Agency, which will provide necessary support to facilitate the development of the Projects to be developed on Solar Parks with necessary infrastructure facilities. This may include facilitation in the following areas:

i. Coordination among various State and Central agencies for speedy implementation of projects
ii. Support during commissioning of projects

14.2. Role of State Transmission Utility

It is envisaged that the State Transmission Utility will provide transmission system to facilitate the evacuation of power from the Projects which may include the following:

i. Provide connectivity to the Solar Projects with the grid
ii. Support during commissioning of projects
iii. Coordination among various State and Central agencies for evacuation of power.

14.3. Role of Solar Power Park Developer (SPPD)

The SPPD shall undertake the following activities to achieve the objectives of speedy establishment and implementation of Solar Park in the Host State:

i. Develop, plan, execute, implement, finance, operate and maintain the Solar Park
ii. Identify potential site and to acquire/possess land for Solar Park
iii. Carry out site related studies / investigations.
iv. Obtain statutory & non statutory clearances and to make area development plan within Solar Power Park.
v. Frame out transparent plot allotment policy and specify procedures pursuant to the relevant State policies and their amendments thereof.
vi. Enter into Lease agreement and give possession before Financial Closure to SPD for the entire period of the Project.
vii. Enter into an Implementation Support Agreement with SPDs for Land & associated infrastructure for development of the Project inside the Solar Park, Connectivity with the STU / CTU System.
viii. Hand over land to developer within 3 months of signing of PPA.

While it will be the endeavor of the State Agencies /Central Agencies as described above to facilitate support in their respective area of working but nevertheless, SPDs shall be overall responsible to complete all the activities related to Project Development at its own risk and cost.

14.4. Minimum Paid up Share Capital to be held by the Promoter

The Company developing the project shall provide the information about the Promoters and their shareholding in the company to Procurer indicating the controlling shareholding before signing of the PPA with Procurer.

No change in the shareholding in the Company developing the Project shall be permitted from the date of submitting the RfS till the execution of the PPA, except for minor changes on account of transfer of shares within the Group Companies or on account of exercise of share option by the company's employees. However, this condition will not be applicable if a listed company is developing the Project.

After execution of PPA, the controlling shareholding (controlling shareholding shall mean more than 50% of the paid up share capital) in the Company developing the project shall be maintained for a period of 3 months after commencement of supply of power. Thereafter, any change can be undertaken under intimation to Procurer. This condition would not apply to the cases where substitution of Promoter / Controlling Shareholder is necessitated by action of and request by Leading Financial Institution / Lender.

14.5. Bank Guarantees

The Project Developer shall provide the following Bank Guarantees to Procurer in a phased manner as follows:

(i) Earnest Money Deposit (EMD), to be fixed by the Procurer, in the form of Bank Guarantee along with RfS.

(ii) Performance Bank Guarantee, to be fixed by the Procurer, at the time of signing of PPA.

In addition to the Performance Bank Guarantee (PBG) to be provided at the time of signing of PPA, the Bank Guarantees towards EMD will also be converted into Performance Bank Guarantee.

In case, Procurer offers to execute the PPA with the Project Developer and if the Project Developer refuses to execute the PPA within the stipulated time period, the Bank Guarantees towards EMD shall be encashed by Procurer. In case the Project is not selected, Procurer shall release the Bank Guarantees within fifteen days after the completion of e-bidding/ reverse auction process. The Performance Bank Guarantees shall be valid for a period suitable enough to cover the project commissioning period and the subsequent maximum delay period allowed with encashment of Performance Bank Guarantees, from the date of signing the PPA. In case any extension is given to the project, the corresponding extension needs to be made in the PBG.

14.6. Financial Closure

The Project Developer shall report Project Financing Arrangements within 210 days from the date of signing Power Purchase Agreement. At this stage, the Project Developer would also furnish the necessary documents to establish possession in the name of the Project Developer of the required land / Lease Agreement (minimum 2 ha per MW) and the requisite technical criterion have been fulfilled.

In case of delay in achieving above condition as may be applicable, Procurer shall encash Performance Bank Guarantees and shall remove the project from the list of the selected projects, unless the delay is on account of delay in allotment of land in Solar Park or by Government or delay in transmission line or Force Majeure. An extension can however be considered by the Officer-in-Charge, on the sole request of SPD, on payment of a penalty (amount to be specified by the Procurer in terms of Rs. per MW per day of delay). This amount will go into the Payment Security Fund. This extension will not have any impact on the Scheduled Commercial Operation Date.

Procurer can extend the time for financial closure and commissioning date by upto 3 months, without any financial implications on the SPD, if there are delays in land allotment or connectivity and in States where solar park is not likely to be ready for a

particular bid, Procurer may allow all bidders to choose their site on their own anywhere in the State. For any extension beyond 3 months, Principle Officer-in-Charge, will be authorized to decide on further extension.

14.7. Commissioning

14.7.1. Part Commissioning:

Part commissioning of the Project shall be accepted by Procurer subject to the condition that the Minimum Capacity for acceptance of first part commissioning shall be 50% of Project Capacity subject to balance Project Capacity thereafter. Part commissioning shall not be applicable for Projects having capacity of 10MW or less. The commissioned capacity shall be considered in the steps of not less than 10 MW unit size. The PPA will remain in force for a period of 25 years or more from the date of Commercial Operation Date (COD) of the first part commissioning of the project.

14.7.2. Commissioning Schedule and Liquidated Damages for Delay in Commissioning:

In case of Solar PV, the Project shall be commissioned within 13 months or less as defined by the procurer from the date of signing of PPA. In case of failure to achieve this milestone, Procurer shall encash the Performance Guarantee in the following manner:

Delay up to five month: Procurer will encash the Performance Bank Guarantee on per day basis and proportionate to the Capacity not commissioned, with 100% encashment for 5 months delay.

Delay beyond five month: In case the commissioning of project is delayed beyond 5 months, the Project Developer shall, in addition to encashment of Bank Guarantee, pay to Procurer the Liquidated Damages at the rate, to be specified by the procurer, in terms of Rs. Per MW per day of delay for the delay in such remaining Capacity which is not Commissioned. Alternatively, if the commissioning of the projects is delayed by more than 5 months, the Procurer, instead of imposing the Liquidated Damages, can also opt for reduction in the applicable tariff in terms of paise/kWh/per day of delay in commissioning.

The maximum time period allowed for commissioning of the full Project Capacity with encashment of Performance Bank Guarantee and payment of Liquidated Damages shall be limited to 25 months from the Date of Signing of PPA. The amount of Liquidated Damages worked out as above shall be recovered by Procurer from the payments due to the Project Developer on account of Sale of Solar Power to Procurer. In case, the Commissioning of the Project is delayed beyond 25 months from the date of signing of

PPA, the PPA capacity shall stand reduced / amended to the Project Capacity Commissioned and the PPA for the balance Capacity will stand terminated and shall be reduced from the selected Project Capacity.

Procurer may consider giving 10% of the penalty charges for delay i.e. bank guarantee encashed and penalty collected to the STU/CTU, as the case may be, if the project is delayed beyond the date as provided for in PPA, even though the Transmission/ evacuation system is ready thereby resulting in system lying idle. SPDs shall enter into an Implementation Support Agreement with SPPD / State Agency for Land & associated infrastructure for development of the Project inside the Solar Park, Connectivity with the STU / CTU System and all clearances related thereto shall be the responsibility of the SPPD / State Agency / SPD. As part of this agreement, 10% of the PBG shall be executed in the name of SPPD.

14.8. Commercial Operation Date (COD):

The projects commissioned during a month shall be entitled for payment of energy @Rs. 3.00/kWh as infirm power till Commercial Operation Date (COD). The Project COD shall be considered 30 days from the actual date of commissioning. The tenure of PPA shall commence from Commercial Operation Date.

In case of part-commissioning also, COD for the part commissioned capacity shall be 30 days from the actual date of commissioning of that part commissioned capacity and therefore the clause of for payment of energy @Rs. 3.00/kWh as infirm power till Commercial Operation Date (COD) will apply to the part commissioned capacity also.

In such cases, where

(i) some capacity of the project is commissioned and COD for that capacity has been achieved, whereas

(ii) some more capacity has been commissioned but COD for that capacity has not been achieved,

then the metered energy will be distributed on pro-rata basis between

(i) capacity commissioned & COD achieved and

(ii) capacity commissioned but COD not achieved,

Annexure I - Time Table for Bid Process

Sl. No.	Event	Elapsed Time from Zero date
1.	Date of issue of RFP	Zero date
2.	Bid clarification, conferences etc. & revision of RFP	**
3.	RFP Bid submission	45 days
4.	Evaluation of bids and issue of LOI	90 days
5.	PPA becomes effective: Signing of Agreements: i) Power purchase agreement, escrow agreement, hypothecation agreement and any other agreement as applicable. ii) Signing of share purchase agreement and transfer of SPV, if applicable.	120 days

** In case of any change in RFP document, the Procurer shall provide Bidders additional time in accordance with clause 5.4.

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.

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) parts of IEC 61000	IEC 61000-6-2, IEC 61000-6-4 & other relevant
Electrical safety	IEC 62103/ IEC 62109-1&2
Anti-Islanding Protection Standards	IEEE 1547/IEC 62116/UL 1741 or equivalent BIS

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% at the end of 10 years and 80% at the end of 25 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.

Annexure III –Definitions

"**Act**" or "**Electricity Act, 2003**" shall mean the Electricity Act, 2003 and include any modifications, amendments and substitution from time to time;

"Affiliate" shall mean a company that, directly or indirectly, controls, or is controlled by, or is under common control with, a Company developing a Project or a Member in a Consortium Developing the Project and control means ownership by one company of at least 26% (twenty six percent) of the paid up share capital of the other company.

"**Applicable Tariff**" shall be the quoted Tariff by the selected project developers.

"Bidding Consortium" or **"Consortium"** shall refer to a group of companies that has collectively Submitted the response in accordance with the provisions of these guidelines.

"CERC Approved Applicable Tariff" shall mean the Tariff as notified by Central Electricity Regulatory Commission for Solar PV Projects applicable as on the Last Date for receipt of financial bids by the Procurer.

"Company" shall mean a body corporate incorporated in India under the Companies Act, 1956 or the Companies Act, 2013 as applicable.

"**Control**" The control shall mean holding more than 50% of paid-up share capital.

"CTU" or Central Transmission Utility shall mean the Central Transmission Utility as defined in sub-section (10) of Section 2 of the Act;

"Financial Closure" as defined in clause 14.6.

"**Group Company**" of a company means (i) a company which, directly or indirectly, holds 10% (ten percent) or more of the paid up share capital of the company or (ii) a company in which the company, directly or indirectly, holds 10% (ten percent) or more of the paid up share capital of such company or (iii) a company in which the company, directly or indirectly, has the power to direct or cause to be directed the management and policies of such company whether through the ownership of securities or agreement or any other arrangement or otherwise or (iv) a company which, directly or indirectly, has the power to direct or cause to be directed the management and policies, of the Company whether

through the ownership of securities or agreement or any other arrangement or otherwise or (v) a company which is under common control with the company, and control means ownership by one company of at least 10% (ten percent) of the paid up share capital of the other company or power to direct or cause to be directed the management and policies of such company whether through the ownership of securities or agreement or any other arrangement or otherwise.
Provided that a financial institution, scheduled bank, foreign institutional investor, non-banking financial company, and any mutual fund shall not be deemed to be Group Company, and its shareholding and the power to direct or cause to be directed the management and policies of a company shall not be considered for the purposes of this definition unless it is the Project Company or a Member of the Consortium developing the Project.

"Host State" shall mean the State in which the Solar Power Projects are to be set – up.

"Inter-connection point / Delivery point / Metering point" shall mean the point at 33kV or above where the power from the Solar Power Project is injected into the Pooling Substation at the Solar Park or STU / CTU substation as applicable. The Metering shall be done at this interconnection point where the power is injected into the Pooling Substation at the Solar Park or STU / CTU system i.e. Delivery Point. For interconnection with grid and metering, the developers shall abide by the relevant CERC Regulations, Grid Code, and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time.

"Joint Control" shall refer to a situation where control is equally distributed among the interested parties.

"**Paid-up share capital**" means such aggregate amount of money credited as paid-up as is equivalent to the amount received as paid up in respect of shares issued and also includes any amount credited as paid up in respect of shares of the company, but does not include any other amount received in respect of such shares, by whatever name called;
Paid-up share capital includes:

- Paid-up equity share capital and
- Fully, compulsorily and mandatorily convertible Preference shares and
- Fully, compulsorily and mandatorily convertible Debentures.

"Lead Member of the Bidding Consortium" or **"Lead Member"**: There shall only one Lead Member, having the shareholding more than 50% in the Bidding Consortium and cannot be changed till 1 year of the Commercial Operation Date (COD) of the Project;

"Parent" shall mean a company, which holds at least 26% of paid up share capital either

directly or indirectly in the Project Company or a Member in a Consortium developing the Project.

"Pooling Substation" shall mean an intermediary Substation where more than one Solar PV Project may connect for further connectivity through a common transmission line to STU / CTU System for evacuation of power.

"Project" is defined by separate points of injection into the grid at interconnection point / delivery point / metering point at Pooling Substation of the Solar Park or STU / CTU substation as the case maybe. Each project must also have a separate boundary, control systems and metering.

"Project Commissioning" the Project will be considered as commissioned if all equipment as per rated project capacity has been installed and energy has flown into grid.

'**Project Financing Arrangements"** means arrangement of necessary funds by the Project Developer either by way of commitment of funds by the company from internal resources and/or tie up of funds through a bank / financial institution by way of sanction of a loan.

"Project Developer" shall mean Bidding Company or a Bidding Consortium submitting the Bid. Any reference to the Bidder includes Bidding Company / Bidding Consortium/ Consortium, Member of a Bidding Consortium including its successors, executors and permitted assigns and Lead Member of the Bidding Consortium jointly and severally, as the context may require";

"SECI" shall mean Solar Energy Corporation of India.

"Solar PV Project" means the Solar Photovoltaic power project that utilizes direct conversion of sunlight into electricity through Photovoltaic technology.

"Solar Park" shall mean concentrated zone of development of solar power generation projects and provides an area that is will characterized, with proper infrastructure and access to amenities. Solar Park will also facilitate developers by reducing the number of required approvals.

"Solar Park Company" means a Company formed for creation of necessary infrastructure facilities for implementation of the Solar Parks.

"Solar Power Park Developer (SPPD)" mean the Agencies which will be involved in overall implementation of the Solar park in a State. The Agencies could be SECI, State Governments and their Agencies or private sector companies as defined in MNRE scheme for

Development of Solar Parks and Ultra Mega Solar Power Projects in the country.

"SPV" shall mean a company established under the Indian Companies Act 1956/ 2013, authorized by the distribution licensee(s) to perform all tasks for carrying out the bidding process in accordance with these Guidelines. The distribution licensee(s) may also entrust initial project preparation activities (proposed to be undertaken before completion of the bidding process) to the SPV. The SPV may be transferred to the successful Bidder selected pursuant to the bidding process.

"STU" or State Transmission Utility shall mean the Board or the Government Company notified by the respective State Government under Sub-Section I of Section 39 of the Act.

"Technology Partner" shall mean an entity from which the Bidder proposes to take technology support. The word entity means any entity in case it is not providing share capital commitment to a bidding company or consortium. However in case share capital commitment is being provided by the technology provider to a bidding company or consortium then it shall only be a company. This entity/ company can be a Member in more than one Bidding Consortium provided that', it has less than 10% of paid up share capital commitment in each Consortium;

"Ultimate Parent" shall mean a company, which owns at least twenty six percent (26%) of paid up share capital either directly or indirectly in the Parent and Affiliates.