



# **Request for Selection of Solar Power Developers for Setting up 4.125 MW Grid-Connected Solar PV Projects in IIT Kharagpur Campus under RESCO Mode through Tariff-based Competitive Bidding**

**RfS No. SECI/C&P/IPP/11/0023/24-25 dated 29.11.2024**

**Tender Search Code on ISN-ETS: SECI-2024-TN000051**

***Solar Energy Corporation of India Limited  
(A Government of India Enterprise)  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi – 110023  
Tel: 011 - 24666200, e-mail : contracts@seci.co.in***

## **DISCLAIMER**

- I. Though adequate care has been taken while preparing the RfS document, the bidder(s) shall satisfy themselves that the document is complete in all respect. Intimation regarding any discrepancy shall be given by the Prospective Bidders to the office of SECI immediately. If no intimation is received from any bidder within **20 (Twenty) days from the date of issuance of RfS documents**, it shall be considered that the document is complete in all respect and has been received/ acknowledged by the bidder(s).
- II. Solar Energy Corporation of India Ltd (SECI) reserves the right to modify, amend or supplement this document.
- III. This RfS document has been prepared in good faith, and on best endeavor basis. Neither SECI nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this document, even if any loss or damage is caused by any act or omission on their part.
- IV. In case of any discrepancy in the documents uploaded on the websites of SECI, ISN-ETS and CPPP, the documents uploaded on the ISN-ETS website will prevail.

Place: New Delhi

Date: 29.11.2024

## **BID INFORMATION SHEET**

The brief details of the RfS are as under:

<b>(A)</b>	<b>NAME OF WORK/ BRIEF SCOPE OF WORK/ JOB</b>	Selection of Solar Power Developers for Setting up 4.125 MW Grid-Connected Solar PV Projects in IIT Kharagpur Campus under RESCO mode through Tariff-Based Competitive Bidding.					
<b>(B)</b>	<b>RfS No. &amp; DATE</b>	SECI/C&P/IPP/11/0023/24-25 dated 29.11.2024					
<b>(C)</b>	<b>TYPE OF BIDDING SYSTEM</b>	<table border="1"> <tr> <td>SINGLE BID SYSTEM</td><td><input type="text"/></td></tr> <tr> <td>TWO BID SYSTEM</td><td><input type="text" value="Yes"/></td></tr> </table>	SINGLE BID SYSTEM	<input type="text"/>	TWO BID SYSTEM	<input type="text" value="Yes"/>	
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<b>(D)</b>	<b>TYPE OF RfS/ TENDER</b>	<table border="1"> <tr> <td>E-TENDER</td><td><input type="text" value="Yes"/></td></tr> <tr> <td>MANUAL</td><td><input type="text"/></td></tr> </table>	E-TENDER	<input type="text" value="Yes"/>	MANUAL	<input type="text"/>	
E-TENDER	<input type="text" value="Yes"/>						
MANUAL	<input type="text"/>						
<b>(E)</b>	<b>COMPLETION/ CONTRACT PERIOD</b>	As mentioned in RfS Document					
<b>(F)</b>	<b>BID PROCESSING FEE</b>	<table border="1"> <tr> <td>APPLICABLE</td><td><input type="text" value="Yes"/></td></tr> <tr> <td>NOT APPLICABLE</td><td><input type="text"/></td></tr> </table>	APPLICABLE	<input type="text" value="Yes"/>	NOT APPLICABLE	<input type="text"/>	<p>Amount: INR 6,000/- (Indian Rupees Six Thousand Only) including GST, to be submitted either through NEFT/RTGS transfer in the account of SECI, or in the form of DD/Pay Order along with the response to RfS in favor of “Solar Energy Corporation of India Ltd”, payable at New Delhi.</p>
APPLICABLE	<input type="text" value="Yes"/>						
NOT APPLICABLE	<input type="text"/>						
<b>(G)</b>	<b>EARNEST MONEY DEPOSIT (EMD)</b>	<table border="1"> <tr> <td>APPLICABLE</td><td><input type="text" value="Yes"/></td></tr> <tr> <td>NOT APPLICABLE</td><td><input type="text"/></td></tr> </table>	APPLICABLE	<input type="text" value="Yes"/>	NOT APPLICABLE	<input type="text"/>	<p>Amount: <b>INR 37.125 Lakh</b> in the form of Bank Guarantee /Payment on Order Instrument (PoI)/ Insurance Surety Bond, along with the Response to RfS</p>
APPLICABLE	<input type="text" value="Yes"/>						
NOT APPLICABLE	<input type="text"/>						

(H)	<b>PERFORMANCE BANK GUARANTEE</b>	APPLICABLE	<input type="text" value="Yes"/>
		NOT APPLICABLE	<input type="text"/>
(I)	<b>DATE, TIME &amp; VENUE OF PRE- BID MEETING</b>	To be scheduled as per NIT on ISN-ETS portal and/or information provided on SECI website.	
(J)	<b>OFFLINE &amp; ONLINE BID- SUBMISSION DEADLINE</b>	As per NIT on ISN-ETS portal	
(K)	<b>TECHNO- COMMERCIAL BID OPENING</b>	As per NIT on ISN-ETS portal	
(L)	<b>e-REVERSE AUCTION (e-RA)</b>	Not Applicable	
(M)	<b>CONTACT DETAILS OF ISN- ETS PORTAL</b>	M/s <b>Electronic Tender.com (India) Pvt. Ltd.</b> Contact Person: ISN-ETS Support Team Customer Support: +91-124-4229071,4229072 (From 10:00 Hrs to 18:00 Hrs on all working Days i.e. Monday to Friday except Govt. Holidays) Email: support@isn-ets.com	
(N)	<b>NAME, DESIGNATION, ADDRESS AND OTHER DETAILS (FOR SUBMISSION OF RESPONSE TO RfS)</b>	Sh. Atulya Kumar Naik Executive Director (Contracts & Procurement) Solar Energy Corporation of India Limited 6 <sup>th</sup> Floor, Plate-B, NBCC Office Block Tower-2, East Kidwai Nagar, New Delhi - 110023 Contact No.: 011 24666200 Email: <a href="mailto:contracts@seci.co.in">contracts@seci.co.in</a>	
(O)	<b>DETAILS OF PERSONS TO BE CONTACTED IN CASE OF ANY ASSISTANCE REQUIRED</b>	1) Sh. Pratik Prasun Sr. Manager (C&P) Ph: 011-24666237 <a href="mailto:pratikpr@seci.co.in">pratikpr@seci.co.in</a> 2) Sh. Abhisekh Srivastav Manager (C&P) Ph: 011-24666260 <a href="mailto:abhisekhsri@seci.co.in">abhisekhsri@seci.co.in</a> 3) Sh. Swapnil Gandhi Senior Engineer (C&P) Ph: 011-24666359 <a href="mailto:swapnil.gandhi@seci.co.in">swapnil.gandhi@seci.co.in</a>	

- Bids must be submitted strictly in accordance with Section-2 and 3 of the RfS, depending upon Type of Tender as mentioned at Clause no. (D) of Bid Information

Sheet.

- Bidders are required to quote strictly as per terms and conditions of the RfS documents and not to stipulate any deviations/ exceptions.
- Any bidder, who meets the Qualifying Requirement and wishes to quote against this RfS, may download the complete RfS document along with its amendment(s) and clarifications if any, from ISN-ETS Portal (<https://www.bharat-electronictender.com>) and/or SECI website ([www.seci.co.in](http://www.seci.co.in)) and submit their Bid complete in all respect as per terms & conditions of RfS Document on or before the due date of bid submission.
- Clarification(s)/ Corrigendum(s) if any shall also be available on the above referred websites.

**Bidders are requested to remain updated for any notices/ amendments/ clarifications etc. to the RfS document through the websites <https://www.bharat-electronictender.com> and [www.seci.co.in](http://www.seci.co.in). No separate notifications will be issued for such notices/ amendments/ clarifications etc. in the print media or individually. Intimation regarding notification on the above shall be updated on [www.seci.co.in](http://www.seci.co.in) and the details only will be available from <https://www.bharat-electronictender.com>**

## **SECTION 1.      INTRODUCTION & INVITATION FOR BIDS**

### ***1      Background & Introduction***

- 1.1      Solar Energy Corporation of India Limited (hereinafter called “SECI”) is a Government of India Enterprise under the administrative control of the Ministry of New & Renewable Energy (MNRE). One of the main objectives of the Company is to assist the Ministry and function as the implementing and facilitating arm of the National Solar Mission (NSM) for development, promotion and commercialization of solar energy technologies in the country.
- 1.2      One of the targets enshrined by the Government under the “Panchamrit” announced by Hon’ble Prime Minister at the COP 26 summit in Glasgow, is meeting 50% of total energy requirements from renewable energy by 2030. As part of these initiatives, SECI has been approached by various Ministries and Government organizations to carry out the bidding and selection of Project developers through a competitive bidding process, to set up Projects under RESCO mode.
- 1.3      In line with the above, SECI, on behalf of Indian Institute of Technology Kharagpur (IITKH), West Bengal, invites proposals for setting up 4.125 MW Grid Connected Solar PV (SPV) Projects on Build Own Operate (B-O-O) basis/RESCO Mode.
- 1.4      SECI shall be the bidding agency for selection of Solar Project Developers for setting up of SPV projects on rooftops, ground available and elevated structure in IIT Kharagpur Campus.
- 1.5      The Bidders will be free to avail fiscal incentives like Accelerated Depreciation, Concessional Customs and Excise Duties, Tax Holidays etc. as available for such Project. 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 SECI for any liability if Bidders are not able to avail fiscal incentives and this will not have any bearing on the applicable tariff. SECI does not however, give a representation on the availability of fiscal incentive and submission of bid by the Bidder shall be independent of such availability or non-availability as the case may be of the fiscal incentives.
- 1.6      No separate Central Financial assistance is envisaged for implementation of the Project selected under this RfS.

### ***2      Invitation for Bids***

- 2.1      A Single Stage, Two-Envelope Bidding Procedure will be adopted and will proceed as detailed in the RfS Documents. Bidding will be conducted through the competitive bidding procedures as per the provisions of this RfS. The respective rights of SECI and the Bidder/SPD shall be governed by the RfS Documents/Agreement signed between IIT Kharagpur and the SPD for the Project.

- 2.2 Interested bidders have to necessarily register themselves on the portal <https://www.bharat-electronictender.com> (“ETS portal”) through M/s Electronic Tender.com (India) Pvt. Limited to participate in the bidding under this invitation for bids. It shall be the sole responsibility of the interested bidders to get themselves registered at the aforesaid portal for which they are required to contact M/s Electronic Tender.com (India) Pvt. Limited, New Delhi to complete the registration formalities. Contact details of ISN-ETS is mentioned on the Bid Information Sheet. All required documents and formalities for registering on ISN-ETS are mentioned in the subsequent RfS documents.

They may obtain further information regarding this RfS from the registered office of SECI at the address given on the Bid Information Sheet from 10:00 hours to 17:00 hours on all working days.

For proper uploading of the bids on the ETS portal, it shall be the sole responsibility of the bidders to apprise themselves adequately regarding all the relevant procedures and provisions as detailed in the portal as well as by contacting M/s Electronic Tender.com (India) Pvt. Limited (ETI) directly, as and when required, for which contact details are also mentioned on the Bid Information Sheet. SECI in no case shall be responsible for any issues related to timely or properly uploading/ submission of the bid in accordance with the relevant provisions of the Bidding Documents.

- 2.3 For the implementation of above-mentioned work, Bidders should submit their Techno-Commercial & Price Bid proposals complete in all aspect through ISN-ETS Portal (<https://www.bharat-electronictender.com>) on or before last date and time of Bid Submission as indicated in the Bid Information Sheet. Bid documents will be sent directly to the invited Bidders through ISN-ETS bidding portal/email by SECI. Any amendment(s)/corrigendum/clarifications with respect to this Limited Tender shall be shared with Bidder through ISN-ETS bidding portal only.
- 2.4 Bidder shall submit its proposal along with non-refundable Bid Processing Fees and Earnest Money Deposit (EMD) (if applicable) complete in all respect as per the Bid Information Sheet. Techno-Commercial bids will be opened as per the Bid Information Sheet in online presence of authorized representatives of bidders who wish to be present online. Bid proposals received without the Bid Processing Fees and/or Earnest Money Deposit (EMD) (as applicable) will be rejected. **In the event of any date indicated being declared a holiday, the next working day shall become operative for the respective purpose mentioned herein.**

RfS documents which include Eligibility Criteria, Technical Specifications, various Conditions of Contract, and Formats etc. can be downloaded from the ISN-ETS Portal or from SECI’s website. It is mandatory to download official copy of the RfS Document from Electronic Tender System (ISN-ETS) Portal to participate in the Tender. Any amendment(s)/corrigendum(s)/clarification(s) with respect to this RfS shall be uploaded on ISN-ETS website. The Bidder should regularly check for any Amendment(s)/Corrigendum(s)/Clarification(s) on the above mentioned ISN-ETS

website. The same may also be uploaded on SECI website also. However, in case of any discrepancy, the information available on ISN-ETS website shall prevail.

- 2.5 SECI reserves the right to cancel/withdraw/defer this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.

## 2.6 **INTERPRETATIONS**

- Words comprising the singular shall include the plural & vice versa.
- An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
- A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
- Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
- The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.



## SECTION 2. SPECIAL CONDITIONS OF CONTRACT

### 3 *Scope of Work*

- 3.1 Under this RfS, the Solar Power Developer (SPD) shall be required to set up a Grid-Connected Solar PV (SPV) Project, with the primary objective of supplying solar power to IIT Kharagpur, at its own cost and as per the provisions of the RfS and draft standard Power Purchase Agreement (PPA).
- 3.2 The detailed Scope of Work is attached **Annexure-1** separately as a part of the RfS document.
- 3.3 The Project shall be set up under the RESCO Mode, as defined by MNRE. The scope of work of the SPD, inter alia, includes but is not limited to, obtaining No Objection Certificate (NOC) from the Distribution Company (DISCOM) for Grid connectivity, complete design, engineering, supply, storage, civil work, erection, testing & commissioning of the SPV Projects including Operation and Maintenance (O&M) of the Project for the term of the PPA. The O&M of the Project may include wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors/ Power Conditioning Unit (PCU), spares, consumables & other parts for the PPA term.
- 3.4 Obtaining Net-metering and grid connectivity of the Project under this tender would be the responsibility of the SPD in accordance with the prevailing guidelines of the respective State Regulators (SERC or JERC) or Central Electricity Authority (CEA) or the DISCOM in the respective area. IIT Kharagpur ("**Client Organization**"), could facilitate connectivity and necessary approvals, however, the entire responsibility lies with the SPD only.
- 3.5 The SPD shall take all necessary permits, approvals and licenses, insurance etc., provide training and such other items and services required to complete the scope of work mentioned above.
- 3.6 The Project to be selected under this scheme provide for deployment of Solar Photovoltaic Technology. However, the selection of Project would be technology agnostic.

### 4 *Total capacity offered*

- 4.1 The estimated cumulative Project capacity envisaged in IIT Kharagpur Campus is around 4.125 MW. The details of the tentative capacities to be setup on the buildings, ground and elevated structure along with building details is attached as **Annexure-C**. The breakup of the cumulative capacity is as follows:

S. No.	Particulars	Tentative Project Capacity (kW)
1	Rooftop capacity	2900

2	Ground mounted capacity	1000
3	Elevated structure capacity	225

- 4.2 The final Project capacity to be installed will be determined at the time of signing of PPA between the SPD and the Client Organization.
- 4.3 The maximum tariff to be quoted by the Bidder for the entire project capacity of 4.125 MW shall be **INR 4.9/kWh (Ceiling Tariff)**.

## **5 *Maximum Eligibility for Contracted Capacity Allocation for a Bidder***

Following conditions shall be applicable to the Bidders for submission of bids against this RfS:

- 5.1 The Bidder, including its Parent, Affiliate or Ultimate Parent or any Group Company shall submit a single bid offering an entire project capacity of **4.125 MW**.

**Note:** In case a common Company/Companies directly or indirectly hold(s) more than 10% but less than 26% shareholding in more than one Bidder participating in the RfS, each one of such Bidders will be required to submit the Disclosure as per Format 7.8A. In all other cases, Format 7.8 will be applicable.

- 5.2 The total capacity to be allocated to a Bidder including its Parent, Affiliate or Ultimate Parent or any Group Company shall be **4.125 MW**.
- 5.3 The evaluation of bids shall be carried out as described in Section-5 of the RfS. The methodology for Allocation of capacity is elaborated in Section-5 of the RfS.
- 5.4 Subject to the exception as per Clause 5.1 above, multiple bids from same company including its Parent/ Ultimate Parent/ Affiliates/ Group Companies shall make all the bids submitted by the group invalid.

## **6 *Projects Location***

The Projects shall be installed on buildings, ground and elevated structure in IIT Kharagpur Campus. To facilitate the Bidders, an indicative list of possible rooftops ground and elevated structure has been enclosed as **Annexure-C**. Prospective Bidders will be required to visit the respective sites and assess the feasibility of space including installation capacity in consultation with respective site in charge/ rooftop owner prior to bid submission. Further, this is to clarify that in all the scenarios, the entire responsibility of identifying the roofs will be of the Successful Bidder. **SECI shall not bear any responsibility in this regard.**

### **6.2 Projects Configuration:**

The term “Project” shall have the meaning as defined in Section 6 of the RfS. A single Rooftop or multiple rooftops including ground mounted (as decided by the SPD and

Client Organization prior to signing of PPA) shall constitute a single Project. A single Project shall refer to one or multiple Grid-connected SPV systems installed on a single/group of buildings, connected to the grid through a single or multiple meters.

Single PPA will be signed by the Client/ IIT Kharagpur with Successful Bidder/SPD for the entire project capacity as per Clause 18 of the RfS document. Configuration of Project shall be decided mutually between Client Organization and Successful Bidder/SPD.

## **7 *Connectivity with the Grid***

- 7.1 The Project should be designed for interconnection with the grid in accordance with prevailing CERC/SERC/JERC/DISCOM regulations in this regard. For interconnection with the grid and metering, the SPD shall abide by applicable Grid Code, Grid Connectivity Standards, Regulations on Communication System for transmission of electricity and other regulations/procedures (as amended from time to time) issued by Appropriate Commissions and Central Electricity Authority (CEA), and any other regulations of the concerned DISCOM where the Project is located. Minimum voltage level for interconnection with the grid shall be as determined by the respective DISCOM.
- 7.2 The responsibility of getting connectivity and necessary approvals for grid connection and net-metering shall entirely be with the SPD and shall be at the risk and cost of the SPD. The transmission of power up to, and including at the point(s) of interconnection where metering is done for energy accounting, shall be the responsibility of the SPD at its own cost. The maintenance of transmission system up to and including at the Interconnection Point shall be responsibility of the SPD, to be undertaken entirely at its risk and cost.
- 7.3 Metering arrangement of each Project shall have to be adhered to in line with relevant clauses of the PPA. The entire cost of transmission (if applicable) including cost of construction of line, wheeling charges, SLDC/ Scheduling charges, SOC, MOC, maintenance, losses etc. and any other charges from the Project up to and including at the Interconnection Point will be borne by the SPD.
- 7.4 Note: The SPD shall apply for Net-metering approval with the respective DISCOM within 90 days of signing of PPA, failing which, the PPA will be liable to be terminated by the Client Organization, along with encashment of PBG for the respective Project.

## **8 *Energy Supply by the Solar Power Developer***

### **8.1 Criteria for Energy Supply**

The Bidders will declare the annual CUF of the Project at the time of submission of response to RfS, and the SPDs will be allowed to revise the same once within first year after COD. Thereafter, the CUF for the Project shall remain unchanged for the entire term of the PPA. The declared annual CUF shall in no case be less than **15%** for Project(s) to be set up in **IIT Kharagpur Campus**. It shall be the responsibility of the

SPD, entirely at its cost and expense to install such number of Solar panels and associated equipment as may be necessary to achieve the required CUF. The SPD shall maintain generation so as to achieve annual energy supply corresponding to CUF within + 10% and -15% of the declared value till the end of 10 years from COD, subject to the minimum annual CUF remaining 15%, and within +10% and -20% of the declared value of the annual CUF thereafter till the end of the PPA term. The lower limit will, however, be relaxable to the extent of Force Majeure events and non-availability of grid during solar generation hours, for evacuation which is beyond the control of the SPD.

For the first year of operation of the Project, the annual CUF shall be calculated for the complete year after commencement of power supply from the Project. Subsequently, the annual CUF will be calculated every year from 1st April of the year to 31<sup>st</sup> March next year. Similarly, for the last year of operation of the Project, the annual CUF shall be calculated for the complete calendar year before the expiry of the PPA. Relaxation to the non-availability of grid beyond the control of SPD need to be certified by Client. Further, duly signed hindrance register shall be maintained during the time of execution and O&M.

## 8.2 **Shortfall in Energy Supply**

Subsequent to Project commissioning, if for any Contract Year, except for the first year after Project commissioning, it is found that the SPD has not been able to supply minimum energy corresponding to the value of annual CUF within the permissible lower limit of CUF declared by the SPD, the SPD shall be levied liquidated damages **@50% of the PPA tariff** for the shortfall in energy terms, in accordance with terms of the PPA.

## 9 ***Commissioning of Project***

When the SPD fulfils its obligation under the PPA, it shall be eligible to apply for completion/commissioning certificate. SECI shall normally issue to the SPD the completion certificate within one month after receiving any application therefore from the SPD, subject to verification of the documents as per the PPA. For the issuance of commissioning/completion certificate, the following documents will be deemed to form the completion documents:

- a. At least 15 days' prior intimation to SECI and the Client Organization for witnessing the Project's inspection/performance.
- b. Project Completion Report (PCR) containing the detailed checklist for inspection of Rooftop SPV power plants as per SECI's format. (Annexure-I)
- c. Photographs of the Project.

### 9.1 **Commissioning Schedule and Penalty for Delay in Commissioning**

- a. The Scheduled Commissioning Date (SCD) for commissioning of full capacity of the Project shall be the date as on **09 months** from the Effective Date of PPA (for e.g. if

Effective Date of the PPA is 07.03.2025, then SCD shall be 07.12.2025).

- b. The maximum time period allowed for commissioning of the full Project Capacity with applicable penalty shall be limited to the date as on **6 months** from the SCD or the extended SCD (if applicable) (for e.g. if SCD of the Project is 07.12.2025, then the above deadline for Project commissioning shall be 07.05.2026).
- c. In case of delay in commissioning of the Project beyond the SCD until the date as per Clause 9.1.b above, as part of the penalty, the total PBG amount for the Project shall be encashed on per-day-basis and proportionate to the balance capacity not commissioned. For example, in case of a Project of 2 MW capacity, if commissioning of 1 MW capacity is delayed by 18 days beyond the SCD, then the liquidated damages shall be: PBG amount X (1/2) X (18/180). For the purpose of calculations of the liquidated damages, 'month' shall be considered consisting of 30 days.
- d. In case Commissioning of the Project is delayed beyond the date as per Clause 9.1.b above, the PPA capacity shall stand reduced/amended to the Project Capacity commissioned and the PPA for the balance capacity will stand terminated.
- e. **Further, in case the SPD is unable to commission more than 50% of the capacity of the Rooftop component indicated as part of the Contracted Capacity as per the PPA within the deadline as per Cl. 9.1.b. above, in addition to the penalty levied as per Cl. 9.1.c and 9.1.d above, the PPA Applicable Tariff shall stand modified to the value equal to 80% of the tariff as awarded to the Successful Bidder/SPD, for the entire Term of the PPA.**

## 9.2 **Early Commissioning:**

The SPD shall be permitted commission the project even prior to SCD. Early commissioning of the Project will be allowed solely at the risk and cost of the SPD, however, procurement of such energy from such early commissioned Project will be based on mutual agreement between all the parties i.e. SPD and Client Organization. In case the Client agrees to purchase energy from such early commissioned Project prior to SCD, such energy will be purchased by Client Organization at PPA tariff.

Such intimation regarding consent to procure energy from early commissioned project shall be provided by Client Organization within 30 days of intimation by the SPD, beyond which it would be considered as deemed refusal.

## ***10 Operation & Maintenance (O&M) Guidelines to be mandatorily followed by the SPD***

- 10.1 The SPD shall be responsible for all the required activities for successful O&M of the Solar PV systems during the entire PPA term from the date of commissioning of the Project.
- 10.2 Following guidelines shall be followed in this regard. In addition, following O&M

practices shall be strictly followed.

- i. O&M of the Project shall be compliant with grid requirements to achieve committed energy generation/CUF.
- ii. Deputation of qualified and experienced engineer/ technicians till the O&M period at project site.
- iii. Periodic cleaning of solar modules. The modules shall be cleaned with a periodic interval of 15 days or as and when required as per actual site conditions. It's the responsibility of the SPD to get the modules cleaned during O&M Period.
- iv. A "hindrance register" shall be maintained to record any issues affecting Project O&M. The same shall be duly signed by both parties of the PPA, recording
- v. Periodic checks of the Modules, PCUs and BoS shall be carried out as a part of routine, preventive and breakdown maintenance.
- vi. Replacement of defective Modules, Invertors/PCUs and other equipment, as and when required, will be carried out within 15 working days from the date of reporting of defect which can be extended based on the site accessibility, etc. as mutually agreed by the two parties.
- vii. Supply of all spares, consumables and fixtures as required. Such stock shall be maintained for all associated equipment and materials as per manufacturer's / supplier's recommendations.
- viii. All the testing instruments required for Testing, Commissioning and O&M for the healthy operation of the Plant shall be maintained by the SPD. The testing equipment must be calibrated once in a year from NABL accredited labs and the certificate of calibration must be kept for reference as required.
- ix. If negligence/ mal-operation on part of the SPD's operator results in failure of equipment, such equipment should be repaired/ replaced by the SPD free of cost.
- x. Co-ordination with Owner/ DISCOM/ CEIG as per the requirement for Joint Meter Reading (JMR) Report. The person-in-charge present at site from the SPD's side shall take a joint meter reading in the presence of rooftop owner/Client on a monthly basis.
- xi. Online Performance Monitoring, controlling, troubleshooting, maintaining of logs & records. A maintenance record register is to be maintained by the operator with effect from Commissioning to record the daily generation, regular maintenance work carried out as well as any preventive and breakdown maintenance along with the date of maintenance, reasons for the breakdown, duration of the breakdown, steps taken to attend the breakdown, etc.
- xii. For any issues related to operation & maintenance, a toll-free number shall be made

available to the rooftop owner/Client to resolve the same within 72 hours.

- xiii. If any jobs covered in O&M Scope as per RfS are not carried out by the SPD during the O&M period, the Client Organization shall take appropriate action as deemed fit. SECI reserves the right to make surprise checks/ inspection visits at its own or through authorized representative to verify the O&M activities being carried out by the SPD. Failure to adhere to above guidelines may result in penal action including debarring from participation in next tender.
- xiv. Source and amount of water to be supplied for module cleaning during O&M period shall be in the scope of SPD.

## **SECTION 3.      STANDARD CONDITIONS OF CONTRACT**

### ***11    Obtaining RfS Documents***

Interested Bidders have to download the official copy of RfS & other documents after login into the ISN-ETS portal by using the Login ID & Password provided by ISN-ETS during registration (Refer Annexure-B of the RfS). The Bidder shall be eligible to submit/upload the bid document only after logging into the ISN-ETS portal and downloading the official copy of RfS. The Bidding documents are available free of cost.

### ***12    Bid Processing Fees***

Prospective Bidders are required to submit their Project proposals in response to this RfS document along with a non-refundable processing fee as mentioned in the Bid Information Sheet. A Bidder will be eligible to participate in the bidding process only on submission of entire financial amounts as per the Bid Information Sheet. In case the Bidder chooses to submit the Bid Processing Fees through NEFT/RTGS (electronic transfer), the Bidder shall submit the transaction receipt instead of the corresponding DDs, as part of the offline bid submission.

The bank details of SECI are available on [www.seci.co.in](http://www.seci.co.in) under the “Financials” Tab.

In case of making an online payment, the prospective Bidders shall immediately write to SECI (mailing to [finance@seci.co.in](mailto:finance@seci.co.in)), providing the payment details along with name and registered address of the Bidder (with GSTIN of the paying entity), to enable seamless issuance of payment invoices for taxation purpose. SECI will not be liable for any delay in issuing necessary invoices in this regard.

In case a Bidder chooses to deduct TDS while making the payments against Bid Processing Fee, such TDS details shall be submitted by the Bidder along with the transaction details, as part of online bid submission.

**Bids submitted without Bid Processing Fee and/or Bank Guarantee against Earnest Money Deposit (EMD) (as applicable) (including partial submission of any one of the respective amounts), may be liable for rejection by SECI.**

MSEs (Micro and Small Enterprises) having valid UDYAM registration as on the last date of bid submission only are exempted from submission of Cost of the RfS document, Bid Processing Fee & Earnest Money Deposit (EMD). For a Consortium to be eligible for exemption from submission of Cost of RfS document, Bid Processing Fee & Earnest Money Deposit, all the members of the Consortium shall be registered as MSE.

### ***13    Project Scope & Technology Selection***

Refer Clause 3 of the RfS.

### ***14    Not Used***



## **15 Bank Guarantee/ Payment on Order Instrument (POI)/ Insurance Surety Bond against Earnest Money Deposit (EMD)**

15.1 Earnest Money Deposit (EMD) for a value **INR 37.125 Lakh (Indian Rupees Thirty-Seven Lakh Twelve Thousand Five Hundred Only)** in the form of Bank Guarantee according to Format 7.3A and valid for 12 months from the last date of bid submission, shall be submitted by the Bidder along with their bid, failing which the bid shall be summarily rejected. The Bank Guarantees towards EMD have to be issued in the name of the Bidding Company/ Lead Member of Bidding Consortium. In the event of encashment of EMD, the encashed amount shall include all applicable taxes.

15.2 The Bidder shall furnish the Bank Guarantees towards EMD from any of the Scheduled Commercial Banks as listed on the website of Reserve Bank of India (RBI) and amended as on the date of issuance of Bank Guarantee. Bank Guarantee issued by foreign branch of a Scheduled Commercial Bank is to be endorsed by the Indian branch of the same bank or State Bank of India (SBI).

The EMD shall be valid as per the timelines stipulated above. However, shortfall in the EMD validity, if any, up to a period of seven (7) days shall be acceptable. Further, an additional shortfall only in the following cases shall be acceptable: If the Bidder has submitted the EMD with validity as per original bid submission date or as per any revised submission date and if the deadline for submission of bids has been extended further, the Bid Guarantee shall be acceptable provided, the EMD is valid for more than two months from the actual date of bid submission and the Bidder submits the EMD extension for the requisite period within seven days from the date of actual bid submission, if required.

15.3 SECI has agreed to accept the EMD in the form of an unconditional and irrevocable Bank Guarantee instead of the cash deposit with the clear position intimated to the bidder that the EMD Bank Guarantee shall be encashable for being appropriated by SECI in terms of the guarantee as in the case of appropriation of the cash deposit lying with SECI.

15.4 The Bank Guarantee (BG) or amendment to be submitted against EMD shall be effective only when the BG issuance message is transmitted by the issuing bank through SFMS to IDFC First Bank IFSC: IDFB0020101, Client Name: Solar Energy Corporation of India Ltd and a confirmation in this regard is received by SECI". Message Type: IFN760COV is to be used by the issuing bank.

### **15.5 Forfeiture of EMD:**

The BG towards EMD shall be encashed by SECI in following cases:

- a. If the Bidder withdraws or varies the bid after due date and time of bid submission and during the validity of bid;
- b. In case, the Client Organization offers to execute the PPA with the Successful Bidder

and if the Successful Bidder does not execute the PPA within the stipulated time period;

- c. If after issuance of LoA, it is found that the documents furnished by the Bidder as part of response to RfS are misleading or misrepresented in any way;
- d. If the Bidder fails to furnish required Performance Bank Guarantee/POI/Insurance Surety Bond in accordance with Clause 16 of the RfS.

#### **15.6 Payment on Order Instrument (POI):**

As an alternative to submission of EMD as above, the Bidder also has an option to submit a letter of undertaking issued by either of the following three organizations, viz. (i) Indian Renewable Development agency Limited (IREDA) or (ii) Power Finance Corporation Limited or (iii) REC Limited. This Letter of Undertaking shall be issued as “Payment on Order Instrument” (POI), wherein the POI issuing organization undertakes to pay in all scenarios under which the EMD would be liable to be encashed by SECI within the provisions of RfS/PPA. This instrument would have to be furnished as per Format 7.3B of the RfS, within the timelines as per Clause 15.1 above, for the amount and validity period as per those Clause 15.1 above.

#### **15.7 Insurance Surety Bond (Surety Bond):**

As another alternative to submission of EMD as above, the bidder also has an option to submit Insurance Surety Bond from an Insurer as per the guidelines issued by the Insurance Regulatory and Development Authority of India (IRDAI). The Surety Bond issuing organization undertakes to pay in all scenarios under which the EMD would be liable to be encashed by SECI within the provisions of RfS/PPA. This instrument would be furnished as per Format 7.3C of the RfS, within the timelines as per Clause 15.1 above, for the amount and validity period as per Clause 15.1 above.

The term “Bank Guarantee (BG) towards/ against EMD” occurring in the RfS shall be read as “Bank Guarantee (BG)/ Payment on Order Instrument (POI)/Insurance Surety Bond towards/ against EMD”.

### ***16 Performance Bank Guarantee (PBG)/POI/Insurance Surety Bond***

- 16.1 Bidders selected by SECI based on this RfS shall submit the PBG to the SECI, a Performance Guarantee for a value **INR 33.75 Lakh/MW (Indian Rupees Thirty-Three Lakh Seventy-Five Thousand per MW Only) corresponding to the cumulative project capacity for which the PPA is being signed** prior to signing of PPA. It may be noted that Successful Bidder shall submit the Performance Guarantee according to the Format 7.3D with a validity period up to (& including) the date as on 9 months after the Scheduled Commissioning Date of the Project.
- 16.2 All Performance Bank Guarantees (PBGs) shall be submitted for the entire project capacity. The PBG is to be issued in favor of SECI.

The PBG is required to be submitted in the name of the entity signing the PPA. In case

of PPA being eventually signed with the SPV incorporated/utilized by the successful bidder, the PBG may be submitted in the name of the successful bidder at an earlier date, if the bidder chooses to do so, and the same shall be replaced by the PBG issued in the name of the SPV, prior to signing of PPA, subject to submission of Board Resolution from the Successful Bidder to transfer the project to its SPV and Board Resolution from the SPV accepting the said Project from the Successful Bidder.

- 16.3 The SPD shall furnish the PBG from any of the Scheduled Commercial Banks as listed on the website of Reserve Bank of India (RBI) and amended as on the date of issuance of Bank Guarantee. Bank Guarantee issued by foreign branch of a Scheduled Commercial Bank is to be endorsed by the Indian branch of the same bank or State Bank of India (SBI). In case of the Project being implemented through an SPV incorporated by the successful bidder, the PBG shall be furnished in the name of the SPV, except for the case as indicated in Clause 32.2 of the RfS.

- 16.4 The format of the Bank Guarantee prescribed in the Formats 7.3A (EMD)/ 7.3D (PBG) shall be strictly adhered to and any deviation from the above Formats shall result in rejection of the EMD/PBG and consequently, the Project. In case of deviations in the formats of the Bank Guarantees, the corresponding PPA shall not be signed.

SECI has agreed to accept the PBG in the form of an unconditional and irrevocable Bank Guarantee instead of the cash deposit with the clear position intimated to the bidder that the PBG shall be encashable for being appropriated by SECI in terms of the guarantee as in the case of appropriation of the cash deposit lying with SECI.

- 16.5 The selected Bidder for the Project selected based on this RfS is required to sign PPA with the Client Organization within the timeline as stipulated in Clause 18 of the RfS. In case, the Client Organization offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not meet eligibility criteria upon submission of documents or does not execute the PPA within the stipulated time period, then the Bank Guarantee equivalent to the amount of the EMD shall be encashed by SECI from the Bank Guarantee/POI/Insurance Surety Bond available with SECI (i.e. EMD or PBG) as liquidated damages not amounting to penalty, the selected Project shall stand cancelled and the selected Bidder expressly waives off its rights and objections, if any, in that respect. It is further clarified that the Penalties are genuine pre-estimate and Bidder/SPD agrees that in case of invocation of BG, SECI is under no obligation to produce any estimate of loss in this regard.

- 16.6 The Bank Guarantees have to be executed on non-judicial stamp paper of appropriate value as per Stamp Act relevant to the place of execution.

- 16.7 All expenditure towards execution of Bank Guarantees such as stamp duty etc. shall be borne by the Bidders/SPDs. Any Bank Guarantee or amendment to be submitted as part of the bidding process / contract execution, shall be effective only when the BG issuance message is transmitted by the issuing bank through SFMS to IDFC First Bank IFSC: IDFB0020101, Client Name: Solar Energy Corporation of India Ltd and a confirmation

in this regard is received by SECI”. Message Type: IFN760COV is to be used by the issuing bank.

- 16.8 In case of Bank Guarantees issued by foreign branch of a Scheduled Commercial Bank, the same is to be endorsed by the Indian branch of the same bank or SBI, and the endorsing bank would be required to provide the SFMS confirmation.
- 16.9 After the bidding process is over, SECI shall release the Bank Guarantees towards EMD of the unsuccessful Bidders within 15 days after the issuance of LoA(s) to the Successful Bidder(s). The Bank Guarantees towards EMD of the successful Bidder(s) shall be released subsequent to submission of PBG by them to SECI. The PBG of SPD shall be returned to them, after successful commissioning of their Project as per Terms of PPA, after taking into account any liquidated damages due to delays in commissioning as per Clause 9 of the RfS.

16.10 **Payment on Order Instrument (POI):**

As an alternative to submission of PBG as above, the SPD also has an option to submit a letter of undertaking issued by either of the following three organizations, viz. (i) Indian Renewable Development agency Limited (IREDA) or (ii) Power Finance Corporation Limited or (iii) REC Limited. This Letter of Undertaking shall be issued as “Payment on Order Instrument” (POI), wherein the POI issuing organization undertakes to pay in all scenarios under which the PBG would be liable to be encashed by SECI within the provisions of RfS/PPA. This instrument would have to be furnished as per Format 7.3E of the RfS, within the timelines as per Clause 16.1 above, for the amount and validity period as per those Clause 16.1 above. In case the SPD chooses to submit POI, delay in submission of the POI beyond the timeline stipulated at Clause 16.1 above, will be applicable in this case too.

16.11 **Insurance Surety Bond (Surety Bond):**

As another alternative to submission of PBG as above, the SPD also has an option to submit Insurance Surety Bond from an Insurer as per the guidelines issued by the Insurance Regulatory and Development Authority of India (IRDAI). The Surety Bond issuing organization undertakes to pay in all scenarios under which the PBG would be liable to be encashed by SECI within the provisions of RfS/PPA. This instrument would be furnished as per Format 7.3F of the RfS, within the timelines as per Clause 16.1 above, for the amount and validity period as per Clause 16.1 above. In case the SPD chooses to submit Surety Bond, delay in submission of the Surety Bond beyond the timeline stipulated at Clause 16.1 above, will be applicable in this case too.

The term “Performance Bank Guarantee (PBG)” occurring in the RfS shall be read as “Performance Bank Guarantee” (PBG)/Payment on Order Instrument (POI)/ Insurance Surety Bond”.

## 17 Service Charges

- 17.1 The Selected Bidder shall pay Service Charges **INR 13.50 Lakh/MW (Indian Rupees Thirteen Lakh Fifty Thousand per MW Only) + applicable taxes** to SECI towards administrative overheads, coordination with the Client Organization, Government Authorities and others, pre-commissioning and commissioning expense, as applicable.
- 17.2 The Service Charges will be calculated on the Project capacity for which PPA is signed by the SPD. These charges will be payable in two installments as follows:
- (i) 50% to be paid within 30 days of issuance of LoA by SECI, and
  - (ii) Remaining 50% to be paid to SECI prior to signing of PPA. In case of any reduction/addition in the total Project capacity for which PPA is executed, the second installment of 50% will be adjusted suitably. Both the installments of Service Charges paid to SECI are non-refundable.

Illustration 1: Assuming that a Bidder is issued LoA for a total quoted capacity of 4.125 MW. The Service charge amount corresponding to the awarded capacity is INR 55.6875 Lakh + applicable GST. Thus, the Bidder will pay INR 27.84375 Lakh + applicable GST to SECI within 30 days of issuance of LoA. Now, assuming that based on site assessment and discussions with the Client Organization, the final capacity for which PPA is to be signed gets modified to 3.5 MW. Thus, the second installment of Service Charge gets modified to INR 19.40625 Lakh + GST (Total Service Charges = INR 13.50 Lakh/MW x 3.5 MW = INR 47.25 Lakh + applicable GST, out of which, INR 27.84375 Lakh + applicable GST has been deposited in the 1<sup>st</sup> installment). The second installment will similarly get enhanced in case of any capacity enhancement prior to signing of PPA.

Illustration 2: Assuming that a Bidder is issued LoA for a total quoted capacity of 4.125 MW. The Service charge amount corresponding to the awarded capacity is INR 55.6875 Lakh + applicable GST. Thus, the Bidder will pay INR 27.84375 Lakh + applicable GST to SECI within 30 days of issuance of LoA. Now, assuming that based on site assessment and discussions with the Client Organization, the final capacity for which PPA is to be signed gets modified to 1.5 MW. In such case the total service charges for 1.5 MW is INR 20.25 Lakh + applicable GST (INR 13.50 lakh/MW x 1.5 MW = INR 20.25 Lakh + applicable GST), against that, INR 27.84375 Lakh + applicable GST have been already deposited in the 1<sup>st</sup> installment. Thus, the second installment of Service Charge gets modified to Rs. Zero, and the difference between the service charges i.e. (INR 27.84375 Lakh - INR 20.25 Lakh = INR 7.59375 Lakh) will be refunded to the Bidder by SECI without any interest in such cases. Further, the refund of GST amount will be dealt according to extant provisions of GST Act.

- 17.3 Service Charges are to be paid by the SPD in the form of DD/ Pay Order/ NEFT/ RTGS. In case of the first installment, any delay in depositing the said amount to SECI beyond 30 days of LoA shall attract late payment charges @18% per annum+ applicable GST, levied on per day basis, on the amount corresponding to the 1<sup>st</sup> installment (i.e. 50% of

Service Charges), until (and including) the date of payment of the said amount, which shall not be later than 60 days after issuance of LoA. In case of delay in submission of the 1<sup>st</sup> installment beyond 60 days after issuance of LoA, the awarded capacity shall stand cancelled and BG against EMD will be encashed by SECI.

- 17.4 The 2<sup>nd</sup> installment shall be paid prior to signing of PPA, and the PPA shall be signed only after deposit of the second installment to SECI.

## **18 Power Purchase Agreement (PPA)**

- 18.1 The Client Organization shall enter into Power Purchase Agreements (PPA) with Successful bidder selected based on this RfS. A copy of standard PPA to be executed between the two parties is available on the ISN-ETS Portal and also on SECI's website. The PPA shall be signed within 60 days from the date of issue of Letter of Award (LoA), if not extended by SECI/Client Organization. *(for e.g. If the LoA is dated 01.05.2025, then the last date of signing of PPA shall be 30.06.2025)*. Subsequent extension in this timeline shall be finalized as mutually agreed by the Client Organization and the SPD. A single PPA will be executed between Client Organization and selected bidder, or its SPV, for the entire project capacity. The PPA shall be valid for a period of 25 years from date of commissioning of the Project.

Bidder has to make the complete and careful examinations of feasibility of GCRT plant/capacity estimation as per the load study of buildings and respective regulation of net metering before signing of PPA with client.

- 18.2 **Capacity identification and confirmation:** subsequent to issuance of LoA by SECI, only the successful bidder will be allowed to carry out site visits and due diligence of the buildings and ground area offered by the Client Organization, and assess the Project sizing and estimated capacity installation under the cumulative capacity awarded. Within this period, the individual Project size to be set up on each building as well as on ground along with elevated structure and the cumulative Project capacity for which PPA is to be signed, will be finalized by both parties.
- 18.3 The PPA shall be valid for a period of 25 years from the date of Project Commissioning, i.e. the Commercial Operation Date, or **COD** of the Project. Any extension of the PPA term beyond this shall be carried out through mutual agreement between the SPD and the Client Organization.
- 18.4 The Performance Bank Guarantee as per Clause 16 above and Service Charges as per Clause 17 above, shall be submitted by the SPD prior to signing of PPA. Before signing of PPA, SECI will verify the shareholding of the Project Company along with a copy of complete documentary evidence. If at this stage, it is found that the documents furnished by the SPDs are false/ misleading or misrepresented in any way, then the provisions contained in this RfS will be applicable.

SECI will issue necessary go-ahead for signing of PPA, upon verification of compliance of pre-requisites by the SPD as brought out above. The PBG will be required to be

submitted to SECI for verification.

SECI shall facilitate the PPA signing process and will bear no responsibility whatsoever on account of non-availability of indicated buildings and/or non-execution of PPA for any particular building.

## ***19 Not Used***

## ***20 Minimum Paid Up Share Capital to be Held by Project Promoter***

- 20.1 The Bidder shall provide complete information in their bid in reference to this RfS about its promoters and upon issuance of LoA, the SPD shall indicate its shareholding in the company indicating the controlling shareholding before signing of PPA with Client.
- 20.2 No change in the controlling shareholding of the Bidding Company or Bidding Consortium shall be permitted from the date of submission of response to RfS till the execution of the PPA. However, in case the Project is being set up by a listed Company, this condition will not be applicable.

Following shall not be considered as change in shareholding as mentioned above:

- i. Infusion of Fresh equity capital amongst the existing shareholders/promoters at the time of Bid Submission to meet equity requirements.
  - ii. Conversion of CCDs, CCPs etc. already issued to existing shareholders.
  - iii. Death, marriage, Divorce, minor attaining major (any legal heir who was minor at the time of signing of PPA), insolvent, insane of existing shareholders.
  - iv. Transfer of shares within the members of Immediate Promoter Group only.
  - v. Transfer of shares to IEPF.
  - vi. Issue of Bonus Shares.
- 20.3 In case of Project being executed through SPVs: The Selected Bidder executing the Project, if being a single company, shall ensure that its shareholding in the SPV/ Project Company executing the PPA, shall not fall below 51% at any time prior to 01 (one) year after the COD. In the event the selected 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 01 (one) year after COD. However, in case the Project is being set up by a listed Company, this condition will not be applicable.
- 20.4 In case of the selected Bidder itself executing the PPA, it shall ensure that its promoters shall not cede control (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), till 01 (one) year after the COD. However, in case the Project is being set up by a listed



Company, this condition will not be applicable.

- 20.5 In case of companies having multiple promoters (but none of the shareholders having more than 50% of voting rights and paid up share capital), it shall be considered as a company under joint control. In such cases, the shareholding pattern in the company as submitted at the time of bidding, shall be maintained for a period of 01 (one) year after COD.
- 20.6 Any change in the shareholding after the expiry of 01 year after COD can be undertaken under intimation to SECI and the Client Organization.

## ***21 Instructions to Bidders for Structuring of Bid Proposals in Response to RfS***

The bidder including its Parent, Affiliate or Ultimate Parent or any Group Company shall submit single response to RfS. Detailed Instructions to be followed by the bidders for online submission of response to RfS are stated at Annexure – B. Submission of bid proposals by Bidders in response to RfS shall be in the manner described below:

- i. Covering Letter as per **Format 7.1**.
- ii. In case of a Bidding Consortium, a Power of Attorney in favour of the Lead Member issued by the other Members of the Consortium shall be provided in original as per format attached hereto as **Format 7.2**.  
  
In the event any Member of the Bidding Consortium (other than Lead Member) is a foreign entity, it may submit Board Resolutions in place of Power of Attorney for the purpose of fulfilling the requirements under this clause. Provided that such Board Resolutions shall be supported by an unqualified opinion issued by the legal counsel of such foreign entity stating that the Board Resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing Company and the authorizations granted therein are true and valid.
- iii. Bank Guarantee/ Payment on Order Instrument (POI)/ Insurance Surety Bond against Earnest Money Deposit (EMD) as per **Format 7.3A/ 7.3B/ 7.3C**.
- iv. Board Resolutions, as per prescribed formats enclosed as per **Format 7.4** duly certified by the Company Secretary or the Director of the relevant Bidder, as applicable to the Bidder and mentioned hereunder:
  - a. Board Resolution from the Bidding Company or the Lead Member of the Consortium, as the case may be, in favour of the person signing the response to RfS and in the event of selection of the Project and to sign the PPA with client. Board Resolution from each of the Consortium Members in favour of the person signing Consortium Agreement.
  - b. Board Resolution from the Bidding Company committing 100% (One Hundred Percent) of the equity requirement for the Project/ Board Resolutions from each of



the Consortium Members together in aggregate committing to 100% (One Hundred Percent) of equity requirement for the Project (in case of Bidding Consortium); and

- c. Board Resolutions from each of the Consortium Members and Lead member contributing such additional amount over and above the percentage limit (specified for the Lead Member and other member in the Consortium Agreement) to the extent becoming necessary towards the total equity share in the Project Company, obligatory on the part of the Consortium pursuant to the terms and conditions in the Consortium Agreement.
- v. In case of a Consortium, the Consortium Agreement between the Members in the Consortium as per **Format 7.5** along with Board resolution from each Member of the Consortium for participating in Consortium.
- vi. Format for Financial Requirements as per **Format 7.6** along with the certificate from practicing Chartered Accountant/ Statutory Auditors showing details of computation of the financial credentials of the Bidder.
- vii. Undertaking regarding no willful default and no major litigation pending as per **Format 7.7**.
- viii. A disclosure statement as per **Format 7.8/ 7.8A** regarding participation of any related companies in the bidding process.
- ix. Covering letter for the financial bid as per **Format 7.9**.
- x. Attachments
  - a. Memorandum of Association, Article of Association of the Bidder needs to be attached along with the bid. The bidder should also highlight the relevant provision which highlights the objects relating to Power/ Energy/ Renewable Energy/ Solar Power plant development.
    - In case, there is no mention of the above provisions in the MoA/ AoA of the Bidder/ bidding company, at the time of bid submission, the bid submitted shall be treated as non-responsive and be rejected.
    - If the selected bidder wishes to execute the project through a Special Purpose Vehicle (SPV), the MoA/ AoA of the SPV highlighting the relevant provision which highlights the objects relating to Power/ Energy/ Renewable Energy/ Solar Power plant development has to be submitted prior to signing of PPA.
  - b. Certificate of Incorporation of Bidding Company/ all member companies of Bidding Consortium.
  - c. A certificate of shareholding of the bidding company, its Parent and Ultimate Parent (if any) duly certified by a practicing Chartered Accountant/Company Secretary as on a date within 30 days prior to the last date of bid submission. SECI

reserves the right to seek additional information relating to shareholding in promoter companies, their parents/ ultimate parents and other group companies to satisfy themselves that RfS conditions have been complied with and the bidder will ensure submission of the same within the required time lines.

- d. Certified copies of annual audited accounts for the last financial year, i.e. FY 2023-24, or provisional audited accounts, along with certified copies of Balance Sheet, Profit & Loss Account, Schedules and Cash Flow Statement supported with bank statements as on the date at least 7 days prior to the due date of bid submission (as applicable), shall be required to be submitted.
- e. Details of all types of securities/instruments which are pending conversion into equity whether optionally or mandatorily.

## **22    *Important Notes and Instructions to Bidders***

- 22.1    Wherever information has been sought in specified formats, the Bidders shall fill in the details as per the prescribed formats and shall refrain from any deviations and referring to any other document for providing any information required in the prescribed format.
- 22.2    The Bidder shall be shortlisted based on the declarations made by them in relevant schedules of RfS.
- 22.3    If the Bidder/Member in a Bidding Consortium conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in its response to RfS, in any manner whatsoever, SECI reserves the right to reject such response to RfS and/or cancel the Letter of Award, if issued, and the Bank Guarantee/ POI/ Insurance Surety Bond provided up to that stage shall be encashed. Bidder shall be solely responsible for disqualification based on their declaration in the submission of response to RfS.
- 22.4    If the event specified at Clause 22.3 is discovered after the Effective Date of PPA, consequences specified in PPA shall apply.
- 22.5    Response submitted by the Bidder shall become the property of the SECI and SECI shall have no obligation to return the same to the Bidder.
- 22.6    All documents of the response to RfS (including RfS and subsequent Amendments/ Clarifications/ Addenda, PPA) submitted online must be digitally signed by the person authorized by the Board as per Format 7.4.
- 22.7    The response to RfS shall be submitted as mentioned in Clause 21 of the RfS. No change or supplemental information to a response to RfS will be accepted after the scheduled date and time of submission of response to RfS. However, SECI reserves the right to seek additional information from the Bidders, if found necessary, during the course of evaluation of the response to RfS.

- 22.8 The Bidder shall make sure that the correct, valid and operative Pass-Phrase to decrypt the relevant Bid-part is submitted into the ‘Time Locked Electronic Key Box (EKB)’ after the deadline of Bid submission, and before the commencement of the Online Tender Opening Event (TOE) of Technical bid.
- 22.9 All the information should be submitted in English language only. In case of bidders or their foreign affiliate having documents in other than English language, then the documents shall be translated in English language by certified translator and submitted.
- 22.10 Bidders shall mention the name of the contact person and complete address and contact details of the Bidder in the covering letter.
- 22.11 Response to RfS that are incomplete, which do not substantially meet the requirements prescribed in this RfS, will be liable for rejection by SECI.
- 22.12 Response to RfS not submitted in the specified formats will be liable for rejection by SECI.
- 22.13 Bidders delaying in submission of additional information or clarifications sought will be liable for rejection.
- 22.14 Non-submission and/ or submission of incomplete data/ information required under the provisions of RfS shall not be construed as waiver on the part of SECI of the obligation of the Bidder to furnish the said data/information unless the waiver is in writing.
- 22.15 Only New Delhi Courts shall have exclusive jurisdiction in all matters pertaining to this RfS.
- 22.16 All the financial transactions to be made with SECI including service charges, delay charges, and any additional charges (if required), shall attract applicable GST on each transaction, irrespective of the same being mentioned in the RfS/PPA.

## **23 *Non-Responsive Bid***

The response to RfS submitted by the bidder along with the documents submitted **online** to SECI shall be scrutinized to establish “Responsiveness of the bid”. Each bidder’s response to RfS shall be checked for compliance with the submission requirements set forth in this RfS.

Any of the following conditions shall cause the Bid to be “Non-responsive”:

- (a) Non-submission of the requisite Bid Processing Fee as mentioned in the Bid Information Sheet.
- (b) Response to RfS not received by the due date and time of bid submission.
- (c) Non-submission of correct, valid and operative Pass-Phrases for both Technical and Financial Bid (Price Bid) Parts after the deadline of Bid Submission, and before the commencement of the Online Tender Opening Event (TOE) of Techno-Commercial Bid.

- (d) Any indication of tariff in any part of response to the RfS, other than in the financial bid.
- (e) Non-submission of payment details against Cost of RfS and/or Bid Processing Fee.
- (f) Data filled in the Electronic Form of Financial Bid (Second Envelope), not in line with the instructions mentioned in the same electronic form.
- (g) Except for the scenario as per Clause 5.1 above, in case it is found that the Bidding Company including Ultimate Parent Company/ Parent Company/Affiliate/Group Companies have submitted more than one response to this RfS, then all these bids submitted shall be treated as non-responsive and rejected.
- (h) Non-submission or partial submission of EMD in acceptable form along with response to RfS.

In any of the above cases, the bid shall not be considered for bid opening and evaluation process.

## ***24 Method of Submission of Response to RfS by the Bidder***

### **24.1 Documents to be Submitted Offline (in Original)**

The bidder has to submit original of following documents **offline**.

- i. Bank Guarantee/ Payment on Order Instrument/ Insurance Surety Bond towards EMD as mentioned in the Bid Information Sheet (as per Format 7.3A/ 7.3B/ 7.3C). Bidder shall submit a single EMD for the cumulative project capacity.
- ii. Pass-phrases for Techno-commercial and Financial bids submitted on the ETS portal.

**No documents will be accepted in person, on or before the date of bid submission.**

**Bank Guarantee/ POI/ Insurance Surety Bond against EMD needs to be submitted in both online and offline modes.** The bidders will be required to submit the Bank Guarantee/POI/ Insurance Surety Bond against EMD and DDs/Pay Orders (if applicable) against the bid processing fee, either in person or through post, at the office of SECI until the date as on 2 working days after the closing date of bid submission. The 2-day duration will be counted from the date of bid submission.

For e.g., if the bid submission deadline is 18:00 hrs. on 22.01.2025, the above deadline will expire at 18:00 hrs. on 24.01.2025. In case the above deadline being a holiday, the next working day in SECI will be the deadline for submission of Bank Guarantees.

**Note:** In all cases, the Bank Guarantee/POI/ Insurance Surety Bond against EMD along with DDs/Pay Orders (if applicable), shall be issued on or before the bid submission deadline. These instruments issued after the expiry of the deadline will be summarily rejected.

The bidding envelope shall contain the following sticker:

<b>Selection of Solar Power Developers for Setting up of 4.125 MW Grid-Connected Solar PV Projects in IIT Kharagpur Campus under RESCO Mode through Tariff-Based Competitive Bidding</b>	
<i>Cumulative Project Capacity</i>	4.125 MW
<i>RfS Reference No.</i>	_____ dated _____
<i>Submitted by</i>	_____ (Enter Full name and address of the Bidder)
<i>Organization ID (OID) on ETS portal</i>	_____ (Enter the OID through which the Bid has been submitted online on ETS portal)
<i>Authorized Signatory</i>	_____ (Signature of the Authorized Signatory) (Name of the Authorized Signatory) (Stamp of the Bidder)
<i>Bid Submitted to</i>	<b>Executive Director (C&amp;P)</b> <b>Solar Energy Corporation of India Limited</b> <b>6th Floor, Plate-B, NBCC Office Block Tower-2,</b> <b>East Kidwai Nagar, New Delhi-110023</b> <b>Tel No. 011-24666200</b> <b>Email - <a href="mailto:contracts@seci.co.in">contracts@seci.co.in</a></b>

#### 24.2 **Documents to be Submitted Online**

Detailed instructions to be followed by the Bidders for online submission of response to RfS as stated as Annexure-B of the RfS. The bidders shall strictly follow the instructions mentioned in the electronic form in respective technical bid and financial bid while filling the forms.

**If the Bidder has submitted bid online and fails to submit the DDs/Pay order against bid processing fee offline within 2 working days from last date of bid submission, then the same shall be treated as incomplete bid and Bid Processing fee submitted shall be encashed and the EMD(s) shall be returned and the submitted bid will stand cancelled.**

All documents of the response to RfS submitted online must be digitally signed and uploaded on the website, <https://www.bharat-electronictender.com> which should contain the following:

##### **I. Technical Bid (First Envelope)**

The Bidder shall upload single technical bid containing scanned copies of the following documents duly signed and stamped on each page by the authorized signatory as mentioned below.

- a. Formats - 7.1, 7.2 (if applicable), 7.3A/ 7.3B/ 7.3C, 7.4, 7.5 (if applicable), 7.6, 7.7, and 7.8/7.8A as elaborated in Clause 21 of the RfS.
- b. All attachments elaborated in Clause 21 of the RfS, under the sub-clause xi: Attachments, with proper file names.
- c. All supporting documents regarding meeting the eligibility criteria.
- d. Scanned Copies of NEFT/RTGS details towards Bid Processing Fee as mentioned in Bid Information Sheet.
- e. Scanned Copies of requisite amount of Bank Guarantee/ Payment on Order Instrument/ Insurance Surety Bond towards EMD as mentioned in the Bid Information Sheet.

**The Bidder will have to fill the Electronic Form provided at the ISN-ETS portal as part of Technical Bid.**

Submission of Pass-phrases: In line with Clause 22.8 and Annexure-B, the Bidder shall be required to submit the Pass-Phrase to decrypt the relevant Bid-part is submitted into the 'Time Locked Electronic Key Box (EKB)' after the deadline of Bid submission, and before the commencement of the Online Tender Opening Event (TOE) of Technical bid.

## **II. Financial Bid (Second Envelope)**

- a) Bidders shall submit the single Financial Bid containing the scanned copy of following document(s):
  - i. Covering letter for financial bid as per **Format 7.9**.
- b) Bidding Parameter:**
  - i. A single levelized tariff as a bidding parameter: Under this RfS, the bidding parameter shall be the tariff quoted by the Bidder i.e., a fixed tariff in Rs./kWh for the term of the PPA for the entire project capacity.
  - ii. The above tariff-fixed for the term of the PPA-shall include all costs related to the Scope of Work as per the RfS and Obligations of the SPD under the PPA. The Bidder shall quote for the entire facilities on a "single responsibility" basis such that the tariff covers all the obligations in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance (25 years), inclusive of all taxes. The fixed tariff should be quoted while accounting for the cost of grid-connectivity and net metering application/ security deposit etc. All costs associated with net-metering will have to be borne by the successful Bidder/SPD.
  - iii. The tariff shall remain firm and fixed and shall be binding on the Successful Bidder/SPD for the Term of the PPA irrespective of actual cost of execution of the Project. No escalation on the tariff will be granted for any reason whatsoever. The SPD shall not be entitled to claim any additional charges, even though it may be

necessary to extend the completion period for any reasons whatsoever.

- iv. The fixed tariff shall be inclusive of all duties and taxes, insurance etc. The prices quoted by the firm shall be complete in all respect and no price variation/adjustment shall be payable by the Client Organization. However, statutory variation of taxes and duties may be paid by the Client Organization.
- v. **Only a single tariff bid for the entire Project capacity, shall have to be filled online in the Electronic Form provided at the ISN-ETS portal. The instructions mentioned in the Financial Bid Electronic Form have to be strictly followed without any deviation, else the bid shall be considered as non-responsive.**
- vi. **Important Note:**
  - (a) The Bidding envelope shall be properly sealed with the signature of the Authorized Signatory running across the sealing of the envelope.
  - (b) In case the Bidder submits the online documents on ISN-ETS within the bid submission deadline and fails to submit the pass phrases in the ETS portal within 2 working days after bid submission deadline, the online bid of the Bidder shall not be opened and shall be ‘archived’ on the ISN-ETS portal. However, in this case, if the bidder is an MSE, its bid will be opened upon submission of proof of it being an MSE. Similarly, bids submitted offline but without any online submission on ISN-ETS portal shall not be opened.
  - (c) In case a Bidder has paid the Bid Processing Fee for this RfS and chooses not to participate in the bidding process (i.e. the Bidder does not submit any of the online or offline bid documents to SECI), the amount paid to SECI will be refunded without any interest payment, to the respective Bidder.

## **25 *Validity of the Response to RfS***

The Bidder shall submit the response to RfS which shall remain valid up to the date as on 12 months from the last date of bid submission (“Bid Validity”). SECI reserves the right to reject any response to RfS which does not meet the aforementioned validity requirement. It is clarified that subsequent to issuance of LoA, the discovered tariffs shall be deemed to be valid until the signing of PPA, pursuant to Clause 37.4 of the RfS.

## **26 *Bid Preparation Cost***

The Bidder shall be responsible for all the costs associated with the preparation of the response to RfS and participation in discussions and attending pre-bid meeting(s) etc. SECI shall not be responsible in any way for such costs, regardless of the conduct or outcome of the bid process.

## **27 *Clarifications/ Pre-Bid Meeting/ Enquiries/ Amendments***

- 27.1 Clarifications/ Doubts, if any, on RfS document may be emailed and/ or through ISN-ETS portal. The format for submission of clarifications is available on the portal.

- 27.2 SECI will make effort to respond to the same in the Pre-Bid Meeting to be held as mentioned in the Bid Information Sheet. A compiled list of such questionnaire and SECI's response will be uploaded in the ISN-ETS portal <https://www.bharat-electronictender.com>. If necessary, amendments, clarifications, elaborations shall be issued by SECI which will be notified on SECI/ ISN-ETS web site. No separate reply/intimation will be given for the above, elsewhere.
- 27.3 A Pre-Bid Meeting shall be held as mentioned in the Bid Information Sheet (Venue to be notified later on SECI's website).
- 27.4 Bidders/SPDs may contact SECI's following points of contact for inquiries, clarifications, or authorizations after issuance of LoA, during execution stage and after Project Commissioning:

<b><u>Name of the Authorized Person of SECI</u></b>	<b><u>Contact Details</u></b>
Shri Sanjay Sharma Director (Solar)	Phone (Off): 011-24666200
Shri Vineet Kumar DGM (Solar)	Phone (Off): 011-24666251 Email: <a href="mailto:vkumar@seci.co.in">vkumar@seci.co.in</a>
Shri Alankar Saxena Manager (Solar)	Phone (Off): 011-24666265 Email: <a href="mailto:alankar@seci.co.in">alankar@seci.co.in</a>

- 27.5 Eligible Bidders/SPDs may contact IIT Kharagpur's following points of contact for site visit inquiries, clarifications, or authorizations after issuance of LoA, during execution stage and after Project Commissioning:

<b><u>Name of the officer appointed by client Organization</u></b>	<b><u>Contact Details</u></b>
Mr. Sabyasachi Ghosh (Sr. Executive Engineer)	Mobile: 9434369369 Email: <a href="mailto:sghosh@hijli.iitkgp.ac.in">sghosh@hijli.iitkgp.ac.in</a>

## **28 *Right of SECI to Reject a Bid***

SECI reserves the right to reject any or all of the responses to RfS or cancel the RfS or annul the bidding process for any project at any stage without assigning any reasons whatsoever and without thereby any liability. In the event of the tender being cancelled prior to opening of bids, the Bid Processing Fee (excluding GST, if amount credited to SECI's account), without any interests, and EMD submitted by the Bidders shall be returned to the respective Bidders (if applicable).

**Note:** In the event of opening of bids, Bid Processing Fee will not be refunded. In case no PPA is signed by the Selected Bidder against the awarded capacity, on account of reasons solely attributable to the Selected Bidder, the 1<sup>st</sup> installment of the Service Charges paid by the Successful Bidder will not be refunded by SECI. However, in case no PPA is signed on account of reasons attributable to SECI/Client Organization, the 1<sup>st</sup> installment of Service Charges paid by the Bidder will be refunded by SECI without any



interest. In such cases, refund of GST amount will be dealt according to extant provisions of GST Act.

## **29 *Post Award Compliances***

Timely completion of all milestones i.e. signing of PPA, meeting Conditions Subsequent (PPA), Commissioning etc. will be the sole responsibility of SPD. SECI/ Client Organization shall not be liable for issuing any intimations/ reminders to SPDs for timely completion of milestones and/ or submission of compliance documents. Any checklist shared with SPD by SECI and/or Client Organization for compliance of the milestones is to be considered for the purpose of facilitation only. Any additional documents required as per the conditions of RfS and PPA must be timely submitted by the SPD.

## **SECTION 4. QUALIFICATION REQUIREMENTS FOR BIDDERS**

Short listing of Bidders will be based on the following Criteria:

### **30 *General Eligibility Criteria***

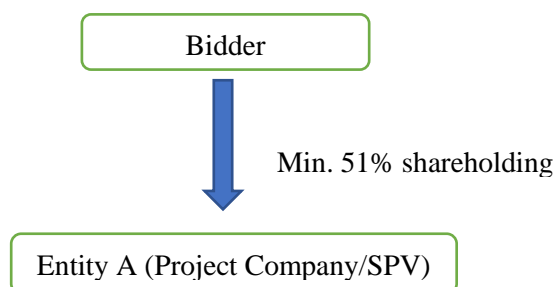
Bidders participating in the RfS will be required to meet the following eligibility criteria (as applicable).

- 30.1 The Bidder shall be a Company or a Limited Liability Partnership as defined.
- 30.2 Bidding Consortium with one of the Companies as the Lead Member. Consortium shortlisted and selected based on this RfS has to necessarily form a Project Company and get it registered under the Companies Act, 2013 prior to signing of PPA, keeping the original shareholding of the Bidding Consortium unchanged. In case applications for multiple Projects have been made by a Consortium, separate Project Companies can be formed for each Project. For the avoidance of doubt, it is hereby clarified that the shareholding pattern of the Project Company shall be the identical to the shareholding pattern of the Consortium as indicated in the Consortium Agreement (Format 7.5).
- 30.3 Registered Partnership/ Limited Liability Partnership (LLP)/ Proprietorship firms (Governed by the Indian Partnership Act, 1932 or equivalent law/act of respective state) are also allowed to participate under this RfS.
- 30.4 A foreign company cannot participate on a standalone basis or as a member of consortium under this RfS.
- 30.5 In line with the O.M. issued by the Department of Expenditure, Ministry of Finance, vide No. 7/10/2021-PPD(1) dated 23.02.2023 and subsequent amendments and clarifications thereto, the Bidder shall meet the following criteria for its bid to be considered for evaluation under the RfS:
  - i. Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority (as defined in the OM as referred above).
  - ii. Any Bidder (including an Indian Bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to participate in this RfS only if the Bidder is registered with the Competent Authority under the referred OM.
  - iii. “Bidder” in this reference, means any person or firm or company, including any member of a consortium, every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in this tender.
  - iv. “Bidder from a country which shares a land border with India” for the purpose of this clause, means:

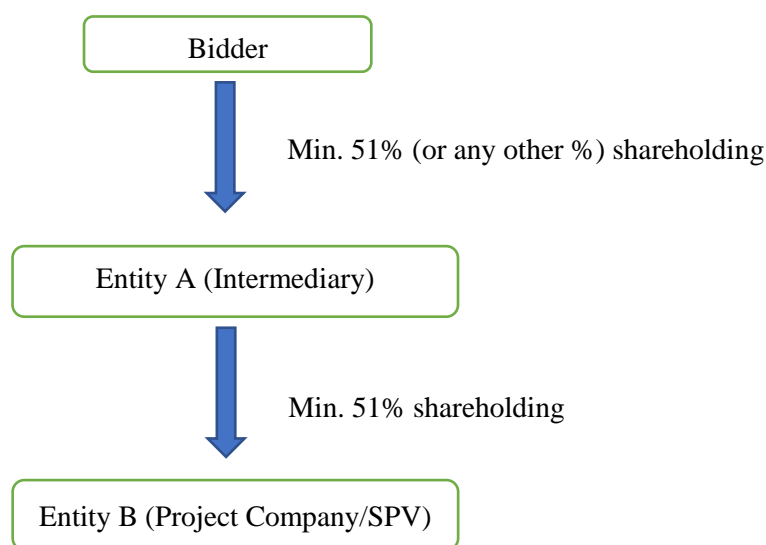
- a. An entity incorporated, established or registered in such a country; or
  - b. A subsidiary of an entity incorporated, established or registered in such a country; or
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d. An entity whose beneficial owner is situated in such a country; or
  - e. An Indian (or other) agent of such an entity; or
  - f. A natural person who is a citizen of such a country; or
  - g. A consortium where any member of the consortium falls under any of the above.
- v. “Beneficial owner” for the purposes of Clause 30.4.iii.iv. above will be as defined in the referred OM, including subsequent amendments and clarifications thereto.
  - vi. In support of the above, the Bidder shall be required to submit necessary Undertaking, as per Format 7.8/7.8A of the RfS.
  - vii. Other provisions of the referred OM dated 23.02.2023, except Sl. 17 of the OM, will also be applicable for this tender. Any interpretation of the above clauses will be made in line with the referred OM, including subsequent amendments and clarifications thereto.
- 30.6 A Bidder which has been selected as Successful Bidder based on this RfS can also execute the Project through a Special Purpose Vehicle (SPV) i.e. a Project Company especially incorporated/acquired as a subsidiary Company of the successful bidder for setting up of the Project, with at least 51% shareholding in the SPV which has to be registered under the Indian Companies Act, 2013, before signing of PPA. Multiple SPVs may also be utilized for executing more than one Project.
- 30.7 Any consortium, if selected as Successful Bidder for the purpose of supply of power to SECI, shall incorporate a Project company with equity participation by the Members in line with consortium agreement (to be submitted along with the response to RfS) before signing of PPA with SECI, i.e. the Project Company incorporated shall have the same shareholding pattern as that indicated in the Consortium Agreement given at the time of submission of response to RfS. This shall not change till the signing of PPA and thereafter the combined shareholding of the Consortium Members in the SPV/Project Company shall not fall below 51% at any time prior to 1 year from the SCSD, except with the prior approval of SECI.
- 30.8 As on bid submission deadline, the Bidder or any of its Affiliates should not be a wilful defaulter to any lender, and that 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. The Bidder shall submit an undertaking to this effect.
- 30.9 For avoidance of doubt, it is clarified that the fully owned subsidiary Company as mentioned in Clauses 30.4 and 30.6 above should be an immediate subsidiary of the

bidder, without any intermediaries involved. The following illustrations are provided to clarify the same:

Scenario 1:



Scenario 2:



**As per provisions of the RfS, only Scenario 1 will be permissible under this RfS.**

### **31 Technical Eligibility Criteria**

- 31.1 Under this RfS, it is proposed to promote only commercially established and operational technologies to minimize the technology risk and to achieve timely commissioning of the Project. The Bidder is required to undertake to furnish evidence of meeting the above criteria in line with provisions of the RfS. The undertaking shall be submitted as per enclosed Format 7.8.
- 31.2 Detailed technical parameters for Solar PV projects to be met by SPDs are at Annexure-A. The Bidders shall strictly comply with the technical parameters detailed in the Annexure-A. Further, the provisions as contained in the O.M. dated 10.03.2021 issued by MNRE on the subject “Approved Models and Manufacturers of Solar Photovoltaic Modules (Requirement of Compulsory Registration) Order, 2019-Implementation-Reg.” and its subsequent amendments and clarifications issued until the bid submission deadline, shall be applicable for this RfS. The modules used in the Project under this RfS should have been included in the List-I under the above Order, valid as on the date of invoicing of such modules.

- 31.3 The Projects shall also comply with the criteria for energy supply as detailed in Clause 8 of the RfS.

## **32 Financial Eligibility Criteria**

### **32.1 Net-Worth**

- i. The Net Worth of the Bidder should be equal to or greater than **INR 3.7125 Crore (Indian Rupees Three Crore Seventy-One Lakh Twenty-Five Thousand Only)**, as on the last date of previous Financial Year, i.e., FY 2023-24 or as on the day at least 7 days prior to the bid submission deadline.
- 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 Net Worth of those Affiliates of the Bidder(s) that undertake to contribute the required equity funding and PBG in case the Bidder(s) fail to do so in accordance with the RfS.
- iii. Net Worth to be considered for this clause shall be the total Net Worth as calculated in accordance with the Companies Act, 2013 and any further amendments thereto.

**AND**

### **32.2 Liquidity**

The bidder should have a minimum Working Capital of **INR 4.641 (Indian Rupees Four Crore Sixty-Four Lakh Ten Thousand Only)** as on the last date of previous Financial Year, i.e., FY 2023-24 or as on the day at least 7 days prior to the bid submission deadline. If the Bidder's working capital is inadequate, the Bidder should supplement this with a letter from the Bidder's lending institutions/banks/Financial Institutions approved by the Government from time to time, confirming availability of the line of credit for more than or equal to **INR 4.641 (Indian Rupees Four Crore Sixty-Four Lakh Ten Thousand Only)** to meet the working Capital requirement.

The Bidder may seek qualification on the basis of financial capability of its Affiliate(s) for the purpose of meeting the qualification requirements as per Clauses 32.1 and 32.2 above. In case of the Bidder being a Bidding Consortium, any Member may seek qualification on the basis of financial capability of its Affiliate. In this case, a Bidder can use the credential of only a single affiliate to meet all the financial eligibility criteria. In such cases, the Bidder shall be required to submit Board Resolutions from the respective Affiliate, undertaking to contribute the required equity funding and Performance Bank Guarantees/POI/ Insurance Surety Bond in case the Bidder(s) fail to do so in accordance with the RfS. In case of non-availability of the Board Resolution as required above, a letter from the CEO/ Managing Director of the respective Affiliate, undertaking the above, shall be required to be submitted and the requisite Board Resolution from the Affiliate shall be required to be submitted prior to signing of PPA.

- 32.3 For the purposes of meeting financial requirements, only latest unconsolidated audited

annual accounts of the Bidder including its Parent or Affiliate or Ultimate Parent or any Group Company shall be used. However, audited consolidated annual accounts of the Bidder may be used for the purpose of financial requirements provided the Bidder has at least twenty six percent (26%) equity in each Company whose accounts are merged in the audited consolidated account.

- 32.4 A Company/Consortium would be required to submit annual audited accounts for the last FY, 2023-24, or as on the day at least 7 days prior to the bid submission deadline, along with net worth, annual turnover, working capital certificate (if applicable) from a practicing Chartered Accountant/Statutory Auditor to demonstrate fulfillment of the criteria.

Note: In case of bidder seeking eligibility using credential of foreign Parent/Ultimate Parent/Affiliate entity, in the event the Bidder is unable to furnish the audited annual accounts for the previous financial year as per the prevalent norm in the respective country, the Bidder shall submit the annual audited accounts of the last financial year for which the audited accounts are available. This, however, would be acceptable, subject to the condition that the last date of response to this RfS falls on or within the deadline for completion of audit of annual accounts of companies, as stipulated by the laws/rules of the respective country, and the Bidder shall submit the corresponding documentary evidence against the same. In case the annual accounts or provisional accounts as on the day at least 7 days prior to the bid submission deadline, are submitted in a language other than English, a certified English translation from an approved translator shall be required to be submitted by the Bidder.

- 32.5 For meeting the above financial eligibility criteria, if the data is provided by the Bidder in a foreign currency, equivalent Indian Rupees of Net Worth and other financial parameters will be calculated by the Bidder using Reserve Bank of India's reference rates prevailing on the date of closing of the accounts for the respective financial year. In case of any currency for which RBI reference rate is not available, Bidders shall convert such currency into USD as per the exchange rates certified by their banker prevailing on the relevant date and used for such conversion. After such conversion, Bidder shall follow the procedure/ submit document as elaborated in Clause 32.4 above.
- 32.6 In case the response to RfS is submitted by a Consortium, then the then the financial requirement is required to be met by the Consortium/JV members on an aggregate basis.

## **SECTION 5. BID EVALUATION AND SELECTION OF PROJECT**

### ***33 Bid Evaluation***

Bid evaluation will be carried out considering the information furnished by Bidders as per provisions of this RfS. The detailed evaluation procedure and selection of bidders are described in subsequent clauses in this Section.

### ***34 Techno-Commercial Evaluation of Bidders (Step 1)***

- 34.1 The first envelope (Techno-commercial Bid submitted online) of only those bidders will be opened by SECI whose required documents as mentioned at Clause 21 of the RfS are received by SECI. Bid opening (online) will be done only after the deadline for submission of Bank Guarantee.

For e.g., if the bid submission deadline is 18:00 hrs on 22.01.2025, the online bid opening will be conducted on 24.01.2025. In case of the above deadline being a holiday, the bids will be opened on the next working day.

- 34.2 Documents (as mentioned in the previous clause) received after the bid submission deadline as specified by SECI, shall be rejected and returned unopened, if super-scribed properly with address, to the bidder.
- 34.3 Subject to Clause 21 of the RfS, SECI will examine all the documents submitted by the Bidders and ascertain meeting of eligibility conditions prescribed in the RfS. During the examination of the bids, SECI may seek clarifications/additional documents to the documents submitted etc. from the Bidders if required to satisfy themselves for meeting the eligibility conditions by the Bidders. Bidders shall be required to respond to any clarifications/additional documents sought by SECI within 07 (seven) days from the date of such intimation from SECI. All correspondence in this regard shall be made through email/ISN-ETS portal only. It shall be the responsibility of the Bidder to ensure that the email id of the authorized signatory of the Bidder is functional. The Bidder may provide an additional email id of the authorized signatory in the covering letter. No reminders in this case shall be sent. It shall be the sole responsibility of the Bidders to remove all the discrepancies and furnish additional documents as requested. SECI shall not be responsible for rejection of any bid on account of the above.
- 34.4 The response to RfS submitted by the Bidder shall be scrutinized to establish Techno-Commercial eligibility as per the RfS.

### ***35 Financial Bid Evaluation (Step 2)***

- 35.1 Second Envelope (containing Fixed Tariff) of only those bidders shall be opened whose technical bids are found to be qualified as per the RfS.
- 35.2 Evaluations of Techno-Commercially Qualified Bids shall be done based on the “Fixed Tariff”, quoted by the Bidder in the Electronic Form of Financial Bid.

- 35.3 The Bidder including its Parent, Affiliate or Ultimate Parent or any Group Company will have to submit a single bid (single application) quoting a single tariff in Rupees per kWh (Rs./kWh). The tariff has to be quoted up to two places of decimal only. If it is quoted with more than two digits after decimal, it shall be ignored after first two decimal places. (For e.g. if the quoted tariff is INR 2.337, then it shall be considered as INR 2.33).
- 35.4 The maximum tariff to be quoted by the Bidder for the entire project capacity of 4.125 MW shall be **INR 4.9/kWh (Ceiling Tariff)**.
- 35.5 In this step, evaluation will be carried out based on tariff quoted by Bidders for the entire project capacity of 4.125 MW.
- 35.6 On completion of Techno-commercial bid evaluation, if it is found that only one bidder is eligible, opening of the financial bid of the bidder will be at the discretion of SECI. Thereafter, SECI will take appropriate action as deemed fit.
- 35.7 Based on the fixed tariff quoted by the bidders, SECI shall arrange the bids in the ascending order i.e., L1, L2, L3, etc. (L1 being the lowest quote).

### ***36 Selection of Successful Bidder***

- 36.1 The Bidder quoting the lowest tariff (L1 tariff) will be identified and shall be declared as the Successful Bidder. In case of multiple Bidders quoting same tariff, then the ranking among these Bidders shall be done as follow:
- a. The Bidder who has the highest Net-worth as per the documents submitted as a part of their bid, shall be considered at higher rank than the other bidder.
  - b. If there is also a tie among any of these Bidders, then bidder with the higher rank will be the Bidder who has quoted the highest CUF as per the Format 7.1 submitted as a part of their bid submission.
  - c. If there is also a tie among any of these bidders, then draw of lots will be considered for ranking of the bidders.
- 36.2 There shall be no negotiation on the quoted price/Fixed tariff between SECI and the Bidder(s) during the process of evaluation/capacity allocation.

### ***37 Issuance of Letter of Award (LoA)***

- 37.1 At the end of selection process, Letter of Award (LoA) will be issued to the Successful Bidder as per the provisions of Clause 36. In case of a Consortium being selected as the Successful Bidder, the LoA shall be issued to the Lead Member of the Consortium. Each Successful Bidder shall acknowledge the LoA and return duplicate of the same, duly signed and stamped by the authorized signatory of the Successful Bidder to SECI within 07 (Seven) days of issue of LoA, failing which it will be deemed to have been accepted by the Bidder.



- 37.2 If the Successful Bidder, to whom the LoA has been issued does not fulfil any of the conditions specified in Bid document, then SECI reserves the right to annul/cancel the award of the Letter of Award of such Successful Bidder.
- 37.3 In all cases, SECI's decision regarding selection of Bidder based on tariff or annulment of tender process shall be final and binding on all participating bidders.
- 37.4 In case of delay in signing of PPA by Client Organisation beyond the date as on 12 months subsequent to issuance of LoA, or any further date as mutually decided by the Successful Bidder and Client Organisation, the Successful Bidder may choose to exit from this tender. Accordingly, the LoA issued to the respective Bidder shall stand cancelled, and the EMD submitted by such Bidder shall be returned by SECI. In case of extension of the above PPA signing date by mutual agreement, the minimum extension in the signing date shall be 3 months subsequent to the above deadline.

### **38 *Registration in Vendor Management System***

SECI will register the Successful Bidder on its Vendor Management System as per the details submitted by the Bidders. Project monitoring shall be carried out by SECI through this system.

### **39 *Inspection and Audit by the Government***

The SPD shall permit SECI/MNRE to inspect its project site, accounts and records relating to the performance of the SPD and to have them audited by auditors appointed by the SECI/MNRE, if so, required by the SECI/MNRE any time during the term of the PPA.

### **40 *Debarment from Participating in SECI's Future Tenders***

- 40.1 SECI reserves the right to carry out the performance review of each Bidder/SPD from the time of submission of Bid. In case it is observed that a bidder/SPD has not fulfilled its obligations in meeting the various timelines envisaged, in addition to the other provisions of the RfS, such Bidders may be debarred from participating in SECI's any future tender for a period as decided by the competent authority of SECI.

Any Project which are already installed or commissioned before the issuance of LoA shall be construed as fraudulent activity in which case Successful bidder(s)/SPD may be debarred from participating in SECI's future tenders for a period as decided by the competent authority of SECI. However, such locations, where there are already installed or commissioned Project, may be used for installation of additional capacity with the prior approval of SECI and Client.

## **SECTION 6.      DEFINITIONS OF TERMS**

*41   Following terms used in the documents will carry the meaning and interpretations as described below:*

- 41.1    **"ACT" or "ELECTRICITY ACT, 2003"** shall mean the Electricity Act, 2003 and include any modifications, amendments and substitution from time to time.
- 41.2    **"AFFILIATE"** shall mean a company that, directly or indirectly,
- i.    controls, or
  - ii.   is controlled by, or
  - iii.   is under common control with, a company developing a Project or a Member in a Consortium developing the Project and control means ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such company or right to appoint majority Directors.
- 41.3    **"B.I.S."** shall mean specifications of Bureau of Indian Standards (BIS).
- 41.4    **"BID" or "PROPOSAL"** shall mean the documents submitted by the Bidder towards meeting the techno-commercial and financial qualifying requirements, along with the price bid submitted by the Bidder and submissions during the e-Reverse Auctions, if applicable, as part of its response to the RfS issued by SECI.
- 41.5    **"BIDDER"** shall mean Bidding Company or a Bidding Consortium submitting the Bid. Any reference to the Bidder includes Bidding Company/ Bidding 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;
- 41.6    **"BIDDING CONSORTIUM" or "CONSORTIUM"** shall refer to a group of Companies that collectively submit the response in accordance with the provisions of this RfS under a Consortium Agreement.
- 41.7    **"BID CAPACITY"** shall mean aggregate project capacity for which the bidder has submitted its bid, of the Solar PV Power Project(s) as proposed by the Bidder.
- 41.8    **"CAPACITY UTILIZATION FACTOR or CUF"** shall have the same meaning as provided in CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009 as amended from time to time.

For illustration, CUF shall be calculated based on the annual energy injected and metered at the Delivery Point. In any Contract Year, if 'X' MWh of energy has been metered out at the Delivery Point for 'Y' MW Project capacity,  $CUF = (X \text{ MWh} / (Y \text{ MW} * 8766)) * 100\%$ .

It may be noted that in the above illustration, the capacity 'Y' MW shall refer to the Contracted Capacity in terms of the PPA.

41.9 **“CEA”** shall mean Central Electricity Authority.

41.10 **“CHARTERED ACCOUNTANT”** shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949.

For Bidders incorporated in countries other than India, “Chartered Accountant” shall mean a person or a firm practicing in the respective country and designated/ registered under the corresponding Statutes/ laws of the respective country.

41.11 **“CLIENT ORGANIZATION”** shall mean IIT Kharagpur, which is authorized to sign the PPA with the SPD, either by itself or through its authorized agency.

41.12 **“COMPANY”** shall mean a body corporate incorporated in India under the Companies Act, 2013 or any law in India prior thereto relating to Companies, as applicable.

41.13 **“COMMERCIAL OPERATION DATE (COD)”** shall mean as defined in PPA.

41.14 **“CONTRACTED CAPACITY”** shall mean the AC capacity in kW/MW contracted with the Client Organization for supply of power by the SPD to the Client Organization at the Delivery Point from the Project, based on which the PPA is executed with the Client Organization.

41.15 **“CONTRACT YEAR”** shall mean the period beginning from the Effective Date of the PPA and ending on the immediately succeeding 31st March and thereafter each period of 12 months beginning on 1st April and ending on 31st March provided that:

- i. in the financial year in which the Scheduled Commissioning Date would occur, the Contract Year shall end on the date immediately before the Scheduled Commissioning Date and a new Contract Year shall commence once again from the Scheduled Commissioning Date and end on the immediately succeeding 31st March, and thereafter each period of 12 (Twelve) Months commencing on 1st April and ending on 31st March, and
- ii. Provided further that the last Contract Year of this Agreement shall end on the last day of the Term of this Agreement.

41.16 **“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.

41.17 **“CONTROLLING SHAREHOLDING”** shall mean more than 50% of the voting rights and paid up share capital in the Company/ Consortium.

41.18 **“DAY”** shall mean calendar day.

41.19 **“EFFECTIVE DATE”** shall mean the date of signing of the Power Purchase Agreement (PPA) executed by both the parties.

41.20 **“EQUITY”** shall mean Net Worth as defined in Companies Act, 2013.

41.21 **“GROUP COMPANY”** of a Company means

- i. a Company which, directly or indirectly, holds 10% (Ten Percent) or more of the share capital of the Company or;
- ii. a Company in which the Company, directly or indirectly, holds 10% (Ten Percent) or more of the 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 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, pension funds and sovereign funds 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.

41.22 **“IEC”** shall mean specifications of International Electro-Technical Commission.

41.23 **“INTER-CONNECTION POINT/ DELIVERY/ METERING POINT”** shall be the single or multiple point(s) for a single Project, at a location mutually agreed by the SPD and Client Organization after conducting necessary feasibility study by the SPD, in line with applicable regulation/ rules where Solar Power is delivered by the SPD from the Project to the Client Organization.

41.24 **“JOINT CONTROL”** shall mean a situation where a company has multiple promoters (but none of the shareholders has more than 50% of voting rights and paid up share capital).

41.25 **“LEAD MEMBER OF THE BIDDING CONSORTIUM”** or **“LEAD MEMBER”**: There shall be only one Lead Member, having the shareholding of not less 51% in the Bidding Consortium.

*Note: The shareholding of the Lead member in the Project Company (Special Purpose Vehicle) cannot be changed until 01 (one) year after the Commercial Operation Date (COD) of the Project.*

- 41.26 **“LETTER OF AWARD” or “LoA”** shall mean the letter issued by Solar Energy Corporation of India Limited (SECI) to the Selected Bidder for award of the cumulative Contracted Capacity.
- 41.27 **“LIMITED LIABILITY PARTNERSHIP” or “LLP”** shall mean a Company governed by Limited Liability Partnership Act 2008 or as amended.
- 41.28 **“MEMBER IN A BIDDING CONSORTIUM” or “MEMBER”** shall mean each Company in a Bidding Consortium. In case of a Technology Partner being a member in the Consortium, it has to be a Company.
- 41.29 **“MONTH”** shall mean calendar month.
- 41.30 **“NET-WORTH”** shall mean the Net-Worth as defined section 2 of the Companies Act, 2013.
- 41.31 **“PAID-UP SHARE CAPITAL”** shall mean the paid-up share capital as defined in Section 2 of the Companies Act, 2013.
- 41.32 **“PARENT”** shall mean a Company, which holds more than 50% voting rights and paid up share capital, either directly or indirectly in the Project Company or a Member in a Consortium developing the Project.
- 41.33 **“PROJECT” or “ROOFTOP SOLAR PV PROJECT” or “SOLAR POWER PROJECT”** shall mean a Solar Photovoltaic Project set up on a single rooftop or collection of rooftops having a single or multiple Metering Point(s) for each Project. The Project shall include all units/modules, auxiliaries and associated facilities, structures, equipment, plant and machinery, facilities and related assets required for the efficient and economic operation of the power generation facility, whether completed or at any stage of development and construction or intended to be developed and constructed for the purpose of supply of power.
- 41.34 **“PROJECT CAPACITY”** shall mean the maximum AC capacity at the Delivery Point that can be scheduled on which the Power Purchase Agreement shall be signed.
- 41.35 **“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, in line with the commissioning procedures defined in the PPA.
- 41.36 **“PROJECT DEVELOPER” or “DEVELOPER” or “SOLAR POWER DEVELOPER (SPD)”** shall mean the Bidding Company or a Bidding Consortium participating in the bid and having been selected and allocated a Project capacity by SECI (through a competitive bidding process) {in case of the Successful Bidder/Bidding Consortium itself executing the Project}, or the SPV formed by the

selected bidder/consortium for the purpose of setting up of the Project and signing of PPA with the Client Organization {in case of Project execution through SPV}.

- 41.37 **“RESCO”** shall mean Renewable Energy Service Companies.
- 41.38 **“RESCO MODEL”** shall mean a business model where the Project Developer sets up a Rooftop Solar PV Power Project on the rooftop of a building owned by the client organization, by obtaining right to access the rooftop/leasing the rooftop with the rooftop owning entity on mutually agreed terms and conditions, and enters into the PPA with rooftop owner/ DISCOM/ others for supply of Solar power for the term of the PPA. The Project Developer is responsible for construction, commissioning, ownership and operation of the Project for the entire term of the PPA at its own risk and cost.
- 41.39 **“ROOFTOP SOLAR PV” or “SOLAR PV”** shall mean solar PV array/system installed on the flat /inclined roof of the building/elevated platform on metallic or concrete structure minimum 10 feet above ground level/Ground mounted system (in the places where sufficient shadow free rooftop area is not available). In such instance up to 40% Solar PV array/system capacity can be accommodated on nearby unutilised land subject to the SECI’s approval.
- 41.40 **“RfS” or “RfS DOCUMENT” or “BIDDING DOCUMENT(S)” or “TENDER DOOCUMENTS”** shall mean the “Request for Selection” document issued by SECI including standard Power Purchase Agreement along with subsequent clarifications and amendments thereof, vide RfS No. SECI/C&P/IPP/11/0023/24-25 dated 29.11.2024.
- 41.41 **“SECI”** shall mean Solar Energy Corporation of India Limited.
- 41.42 **“SCHEDULED COMMISSIONING DATE” or “SCD”** shall be the date as indicated in Clause 9 of the RfS.
- 41.43 **“SELECTED BIDDER” or “SUCCESSFUL BIDDER”** shall mean the Bidder selected pursuant to this RfS to set up the Project and supply electrical output to Client as per the terms of PPA.
- 41.44 **“SOLAR PV PROJECT” or “SOLAR POWER GENERATING SYSTEM/ STATION” or “ROOFTOP SOLAR PV PROJECT”** shall mean the Solar Photo Voltaic Power Project that uses sunlight for direct conversion of solar energy into electricity through Photo Voltaic Technology.
- 41.45 **“TOE”** shall mean Tender Opening Event.
- 41.46 **“ULTIMATE PARENT”** shall mean a Company, which owns more than 50% (Fifty Percent) voting rights and paid up share capital, either directly or indirectly in the Parent and Affiliates.
- 41.47 **“WEEK”** shall mean calendar week.

## **SECTION 7.        SAMPLE FORMS & FORMATS FOR BID SUBMISSION**

The following formats are required to be submitted as part of the RfS. These formats are designed to demonstrate the Bidder's compliance with the Qualification Requirements set forth in Section 4 and other submission requirements specified in the RfS.

### **Format 7.1**

#### **COVERING LETTER**

**(The Covering Letter should be submitted on the Letter Head of the Bidding Company/  
Lead Member of Consortium)**

Ref. No. \_\_\_\_\_

Date:

From: \_\_\_\_\_ *(Insert name and address of Bidding Company/ Lead Member of Consortium)*

\_\_\_\_\_  
\_\_\_\_\_

Tel. #:

Fax #:

E-mail address#

To

Solar Energy Corporation of India Limited  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi - 110 023

Sub: Response to RfS No. .... dated ..... for .....(Insert title of the RfS)

Dear Sir/ Madam,

We, the undersigned ..... *[Insert name of the 'Bidder']* having read, examined and understood in detail the RfS including Qualification Requirements in particular, terms and conditions of the standard PPA for supply of power for the Term of the PPA to Client Organization, hereby submit our response to RfS.

We confirm that in response to the aforesaid RfS, neither we nor any of our Ultimate Parent Company/ Parent Company/ Affiliate/ Group Company has submitted response to RfS other than this response to RfS, directly or indirectly, in response to the aforesaid RfS (as mentioned in Format 7.8 under Disclosure) **OR** We confirm that in the response to the aforesaid RfS, we have a Group Company who owns more than 10% but less than 26% in the bidding company as well as other companies who may participate in this RfS, and accordingly, we have submitted requisite undertaking as per Format 7.8A in this regard {*strike out*

*whichever is not applicable* }.

We also confirm that we including our Ultimate Parent Company/ Parent Company/ Affiliate/ Group Companies directly or indirectly have not submitted response to RfS for more than one response to RfS.

We are submitting RfS for the development of following Project: -

<b>Name of the Client Organization</b>	<b>Name of State</b>	<b>Zone</b>	<b>Cumulative bid Capacity (MW)</b>	<b>Proposed CUF</b>
IIT Kharagpur	West Bengal	III	4.125	

1. We give our unconditional acceptance to the RfS, dated ..... [Insert date in dd/mm/yyyy] and standard PPA document attached thereto, issued by SECI. In token of our acceptance to the RfS and PPA along with the amendments and clarifications issued by SECI, the same have been digitally signed by us and enclosed with the response to RfS. We shall ensure that the PPA is executed as per the provisions of the RfS and provisions of PPA and shall be binding on us. Further, we confirm that the Project shall be commissioned within the deadline as per Clause 9 of the RfS.

2. Earnest Money Deposit (EMD): - (Please read Clause 15 carefully before filling)

We have enclosed EMD of INR ..... (Insert Amount), in the form of Bank Guarantee/Payment on Order Instrument (POI)/ Insurance Surety Bond no. .... [Insert Bank Guarantee/Payment on Order Instrument/ Insurance Surety Bond number] dated ..... [Insert date of Bank Guarantee/POI] as per Format 7.3A/ 7.3B/ 7.3C from ..... [Insert name of bank providing Bank Guarantee/POI/Insurance Surety Bond] and valid up to.....in terms of Clause 15 of this RfS. The total bid capacity offered by us is ..... MW [Insert cumulative capacity proposed]. (Strike off whichever is not applicable)

3. We hereby declare that in the event our Project capacity get selected and we are not able to submit Bank Guarantee of the requisite value(s) towards PBG, Service charges for the selected Project capacity, within due time as mentioned in Clauses 16 & 17 of this RfS and/or we are not able to sign PPA with the Client Organization within the timeline as stipulated in the RfS for the selected Project, SECI shall have the right to encash the EMD/PBG submitted by us and return the balance amount (if any) for the value of EMD pertaining to unsuccessful capacity.

4. We have submitted our response to RfS strictly as per Section 7 (Sample Forms and Formats) of this RfS, without any deviations, conditions and without mentioning any assumptions or notes in the said Formats.

5. Acceptance:-



We hereby unconditionally and irrevocably agree and accept that the decision made by SECI in respect of any matter regarding or arising out of the RfS shall be binding on us. We hereby expressly waive and withdraw any deviations and all claims in respect of this process.

We also unconditionally and irrevocably agree and accept that the decision made by SECI in respect of award of Project in line with the provisions of the RfS, shall be binding on us.

6. **Familiarity with Relevant Indian Laws & Regulations: -**  
We confirm that we have studied the provisions of the relevant Indian Laws and Regulations as required to enable us to submit this response to RfS and execute the PPA with the Client Organization, in the event of our selection as Successful Bidder.
7. In case of our selection as the Successful Bidder under the scheme and the project being executed by a Special Purpose Vehicle (SPV) incorporated by us which shall be our subsidiary, we shall infuse necessary equity to the requirements of RfS. Further we will submit a Board Resolution prior to signing of PPA with the Client Organization, committing total equity infusion in the SPV as per the provisions of RfS.
8. We are submitting our response to the RfS with formats duly signed as desired by you in the RfS online for your consideration.
9. It is confirmed that our response to the RfS is consistent with all the requirements of submission as stated in the RfS, including all clarifications and amendments and subsequent communications from SECI.
10. The information submitted in our response to the RfS is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response to the RfS.
11. We undertake that the onus of locating the buildings/ rooftops and completing the other documentation like finalizing the Project report and entering into agreements with the buildings/ rooftops owners lies with us and that SECI does not bear any responsibility in this regard.
12. We confirm that all the terms and conditions of our Bid are valid up to the date as on 12 months from the last date of submission of response to RfS.
13. We agree that upon our selection as Successful Bidder under this RfS, and that we will deposit Service charges to SECI as per the provisions of the RfS.

**14. Contact Person**

Details of the representative to be contacted by SECI are furnished as under:

Name : .....  
Designation : .....

Company : .....  
Address : .....  
Phone Nos. : .....  
Mobile Nos. : .....  
Fax Nos. : .....  
E-mail address: .....

15. We have neither made any statement nor provided any information in this Bid, which to the best of our knowledge is materially inaccurate or misleading. Further, all the confirmations, declarations and representations made in our Bid are true and accurate. In case this is found to be incorrect after our selection as Successful Bidder, we agree that the same would be treated as our event of default under PPA and consequent provisions of PPA shall apply.

Dated the \_\_\_\_\_ day of \_\_\_\_\_, 20....

Thanking you,

We remain,

Yours faithfully,

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

**FORMAT FOR POWER OF ATTORNEY**

*(Applicable Only in case of Consortiums)*

*(To be provided by each of the other members of the Consortium in favor of the Lead Member)*

*(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)*

KNOW ALL MEN BY THESE PRESENTS THAT M/s..... having its registered office at ....., ....., and M/s ..... having its registered office at ....., (Insert names and registered offices of all Members of the Consortium) the Members of Consortium have formed a Bidding Consortium named ..... (insert name of the Consortium if finalized) (hereinafter called the 'Consortium') vide Consortium Agreement dated..... and having agreed to appoint M/s..... as the Lead Member of the said Consortium do hereby constitute, nominate and appoint M/s..... a company incorporated under the laws of ..... and having its Registered/ Head Office at ..... as our duly constituted lawful Attorney (hereinafter called as Lead Member) to exercise all or any of the powers for and on behalf of the Consortium in regard to submission of the response to RfS No.....

We also authorize the said Lead Member to undertake the following acts:

- i) To submit on behalf of Consortium Members response to RfS.
- ii) To do any other act or submit any information and document related to the above response to RfS Bid.

It is expressly understood that in the event of the Consortium being selected as Successful Bidder, this Power of Attorney shall remain valid, binding and irrevocable until the Bidding Consortium achieves execution of PPA.

We as the Member of the Consortium agree and undertake to ratify and confirm all whatsoever the said Attorney/ Lead Member has done on behalf of the Consortium Members pursuant to this Power of Attorney and the same shall bind us and deemed to have been done by us.

IN WITNESS WHEREOF M/s ....., as the Member of the Consortium have executed these presents on this..... day of ..... under the Common Seal of our company.

For and on behalf of Consortium Member

M/s.....

----- (Signature of person authorized by the board)

(Name

Designation

Place:

Date:    )

Accepted

-----

(Signature, Name, Designation and Address

of the person authorized by the board of the Lead Member)

Attested

-----

(Signature of the executant)

-----

(Signature & stamp of Notary of the place of execution)

Place: -----

Date: -----

Lead Member in the Consortium shall have the controlling shareholding in the Company as defined in Section-6, Definition of Terms of the RfS.

## **Format 7.3A**

### **FORMAT FOR BANK GUARANTEE TOWARDS EARNEST MONEY DEPOSIT** **(EMD)**

*(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)*

Reference: .....

Bank Guarantee No.: .....

Date: .....

In consideration of the \_\_\_\_\_ [Insert name of the Bidder] (hereinafter referred to as 'Bidder') submitting the response to RfS inter alia for \_\_\_\_\_ [Insert title of the RfS] of the cumulative capacity of \_\_\_\_\_ MW [Insert cumulative bid capacity proposed] for supply of power there from on long term basis to the Client Organization, in response to the RfS No. \_\_\_\_\_ dated \_\_\_\_\_ issued by Solar Energy Corporation of India Limited (hereinafter referred to as SECI) and SECI considering such response to the RfS of ..... [Insert the name of the Bidder] as per the terms of the RfS, the \_\_\_\_\_ [Insert name & address of bank] hereby agrees unequivocally, irrevocably and unconditionally to pay to SECI at [Insert Name of the Place from the address of SECI] forthwith without demur on demand in writing from SECI or any Officer authorized by it in this behalf, any amount upto and not exceeding Rupees \_\_\_\_\_ [Insert amount not less than that derived on the basis of cumulative bid capacity proposed], only, on behalf of M/s \_\_\_\_\_ [Insert name of the Bidder].

This guarantee shall be valid and binding on this Bank up to and including \_\_\_\_\_ [insert date of validity in accordance with Clause 15 of this RfS] and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to INR \_\_\_\_\_ (Indian Rupees \_\_\_\_\_ only). Our Guarantee shall remain in force until \_\_\_\_\_ [insert date of validity in accordance with Clause 15 of this RfS]. SECI shall be entitled to invoke this Guarantee till \_\_\_\_\_ [insert date of validity in accordance with Clause 15 of this RfS].

The Guarantor Bank hereby agrees and acknowledges that the SECI shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by SECI, made in any format, raised at the above-mentioned address of the

Guarantor Bank, in order to make the said payment to SECI.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by \_\_\_\_\_ [*Insert name of the Bidder*] and/ or any other person. The Guarantor Bank shall not require SECI to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against SECI in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at New Delhi shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly SECI shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder or to enforce any security held by SECI or to exercise, levy or enforce any distress, diligence or other process against the Bidder.

This BANK GUARANTEE shall be effective only when the Bank Guarantee issuance message is transmitted by the issuing Bank through SFMS to IDFC First Bank and a confirmation in this regard is received by SECI.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to INR \_\_\_\_\_ (Indian Rupees \_\_\_\_\_ Only) and it shall remain in force until \_\_\_\_\_ [*Date to be inserted on the basis of Clause 15 of this RfS*].

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if SECI serves upon us a written claim or demand.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Power of Attorney No.: \_\_\_\_\_

For

\_\_\_\_\_ [*Insert Name and Address of the Bank*] \_\_\_\_\_

Contact Details of the Bank:

E-mail ID of the Bank:

Banker's Stamp and Full Address.

Dated this \_\_\_\_ day of \_\_\_\_, 20\_\_

**FORMAT OF PAYMENT ON ORDER INSTRUMENT TO BE ISSUED BY  
IREDA/REC/PFC (IN LIEU OF BG TOWARDS EMD)**

No.

Date

SECI,

Registered

**Reg: M/s \_\_\_\_\_(insert name of the Bidder) – Issuance of Payment on  
Order Instrument for an amount of Rs. \_\_\_\_\_**

Dear Sir,

1. It is to be noted that M/s. \_\_\_\_\_(*insert name of the POI issuing Agency*) ('IREDA/REC/PFC') has sanctioned a non-fund based limit loan of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) to M/s \_\_\_\_\_ under the Loan Agreement executed on \_\_\_\_\_ to execute Renewable Energy Project.
2. At the request of M/s \_\_\_\_\_, on behalf of \_\_\_\_\_ (*insert name of the Bidder*), this Payment on Order Instrument (POI) for an amount of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_(*in words*)). This Payment on Order Instrument comes into force immediately.
3. In consideration of the \_\_\_\_\_ [*Insert name of the Bidder*] (hereinafter referred to as 'Bidder') submitting the response to RfS inter alia for \_\_\_\_\_ [*Insert title of the RfS*] of the cumulative capacity of \_\_\_\_\_ MW [*Insert cumulative bid capacity proposed*] for supply of power there from on long term basis to the Client Organization, in response to the RfS No. \_\_\_\_\_ dated \_\_\_\_\_ issued by Solar Energy Corporation of India Limited (hereinafter referred to as SECI) and SECI considering such response to the RfS of .....[*Insert the name of the Bidder*] as per the terms of the RfS, the \_\_\_\_\_ [*Insert name & address of IREDA/PFC/REC*] hereby agrees unequivocally, irrevocably and unconditionally to pay to SECI at [*Insert Name of the Place from the address of SECI*] forthwith without demur on demand in writing from SECI or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees \_\_\_\_\_ [*Insert amount not less than that derived on the basis of cumulative capacity proposed*], only, on behalf of M/s \_\_\_\_\_ [*Insert name of the Bidder*].
4. In consideration of the above facts, IREDA/REC/PFC, having its registered office at \_\_\_\_\_, agrees to make payment for the sum of Rs. \_\_\_\_\_ lakhs (in words.....) to SECI on the following conditions:-
  - (a) IREDA/REC/PFC agrees to make payment of the above said amount unconditionally, without demur and without protest within a period of \_\_\_\_\_ days

of receipt of request from SECI within the validity period of this letter as specified herein;

- (b) The commitment of IREDA/REC/PFC, under this Payment of Order Instrument will have the same effect as that of the commitment under the Bank Guarantee issued by any Public Sector Bank and shall be enforceable in the same manner as in the case of a Bank Guarantee issued by a Bank and the same shall be irrevocable and shall be honored irrespective of any agreement or its breach between IREDA/REC/PFC or its constituents notwithstanding any dispute that may be raised by the against SECI;
  - (c) The liability of IREDA/REC/PFC continues to be valid and binding on IREDA/REC/PFC and shall not be terminated, impaired and discharged, by virtue of change in its constitution and specific liability under letter of undertaking shall be binding on its successors or assignors;
  - (d) The liability of IREDA/REC/PFC shall continue to be valid and binding on IREDA/REC/PFC and shall not be terminated/ impaired/ discharged by any extension of time or variation and alternation made given or agreed with or without knowledge or consent of the parties (SECI and Bidding Party), subject to the however to the maximum extent of amount stated herein and IREDA/REC/PFC is not liable to any interest or costs etc.;
  - (e) This Payment on Order Instrument can be invoked either partially or fully, till the date of validity;
  - (f) IREDA/REC/PFC agrees that it shall not require any proof in addition to the written demand by SECI made in any format within the validity period. IREDA/REC/PFC shall not require SECI to justify the invocation of the POI against the SPV/SPD, to make any claim against or any demand against the SPV/SPD or to give any notice to the SPV/SPD;
  - (g) The POI shall be the primary obligation of IREDA/REC/PFC and SECI shall not be obliged before enforcing the POI to take any action in any court or arbitral proceedings against the SPV/SPD;
  - (h) Neither SECI is required to justify the invocation of this POI nor shall IREDA/REC/PFC have any recourse against SECI in respect of the payment made under letter of undertaking;
5. Notwithstanding anything contrary contained anywhere in this POI or in any other documents, this POI is and shall remain valid up to \_\_\_\_\_ and IREDA/REC/PFC shall make payment thereunder only if a written demand or request is raised within the said date and to the maximum extent of Rs. .... and IREDA/REC/PFC shall in no case, be liable for any interest, costs, charges and expenses and IREDA's/REC's/PFC's liability in no case will exceed more than the above amount stipulated.



6. In pursuance of the above, IREDA/REC/PFC and SECI have signed an Umbrella Agreement dated \_\_\_\_ setting out the terms and conditions for issue of letter of undertaking by IREDA/REC/PFC to SECI and the said terms and conditions shall be read as a part of this letter of undertaking issued for the project of the project of PP mentioned above.

Thanking you,

Yours faithfully

For and on behalf of

M/s. \_\_\_\_\_

**(Name of the POI issuing agency).**

( )

General Manager (TS)

Copy to:-

M/s. \_\_PP\_\_\_\_\_

\_\_\_\_\_ As per their request

( )

General Manager (TS)

**FORMAT OF INSURANCE SURETY BOND TOWARDS EMD**

*(To be stamped in accordance with stamp act of India)*

Insurance Surety Bond No.:

Date:

To,  
Solar Energy Corporation of India Limited,  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi - 110 023

Dear Sir,

In accordance with your RfS No. ....dated ....., M/s .....*[Insert name of the Bidder]* having its Registered/Head Office at..... *[Insert address of the bidder]* (hereinafter referred to as 'bidder') wish to participate in the said bid for .....*[Insert name of the RfS]*.

As an irrevocable Insurance Surety Bond against Bid Security for an amount of ..... *[Insert amount not less than that derived in line with Clause 15 of the RfS]* valid for.....*[insert date of validity in accordance with Clause No. 15 of this RfS]* required to be submitted by the bidder as a condition precedent for participation in the said bid which amount is liable to be forfeited on the happening of any contingencies as mentioned under the RfS Documents.

We, the..... *[Insert name of the "Insurer"]* having our Head Office at .....*[Insert address of the Insurer]* guarantee and undertake to pay immediately on demand by Solar Energy Corporation of India Limited (hereinafter referred to as 'SECI') the amount of ..... *[Insert amount not less than that derived in line with Clause 15 of the RfS]* without any condition, demur, reservation, contest, recourse or protest and/or without any reference to the Bidder. Any such demand made by SECI shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder and/or any right/remedy available to the Bidder in terms thereof.

This Insurance Surety Bond shall be unequivocal, unconditional as well as irrevocable and shall remain valid upto..... *[insert date of validity in accordance with Clause 15 of this RfS]*. If any further extension of this Insurance Surety Bond is required, the same shall be extended to such required period on receiving instructions from M/s .....*[Insert name of the Bidder]* on whose behalf this Insurance Surety Bond is issued.

The Insurer hereby agrees and acknowledges that the SECI shall have a right to invoke this Insurance Surety Bond in part or in full, as it may deem fit.

The Insurer hereby expressly agrees that it shall not require any proof in addition to the written demand by SECI, made in any format, raised at the above-mentioned address of the Insurer, in order to make the said payment to SECI.

The Insurer shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by \_\_\_\_\_ *[Insert name of the Bidder]* and/ or any other person. The Insurer shall not require SECI to justify the invocation of this Insurance Surety Bond, nor shall the Insurer have any recourse against SECI in respect of any payment made hereunder.

This Insurance Surety Bond shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Insurer.

This Insurance Surety Bond shall be a primary obligation of the Insurer and accordingly SECI shall not be obliged before enforcing this Insurance Surety Bond to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder or to enforce any security held by SECI or to exercise, levy or enforce any distress, diligence or other process against the Bidder.

In witness where of the Insurer, through its authorized officer, has set its hand and stamp on this ..... day of ..... 20..... at .....

.....  
(Signature)

.....  
(Name)

.....  
(Designation with Insurer Stamp)

Power of Attorney No. ....

Date.....

**Email id of the Branch for confirmation of this Bond: .....**

**NOTE:**

1. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI) as amended from time to time.
2. SECI shall be the Creditor, the bidder shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
3. The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance

Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of bidder/Insurer issuing the Insurance Surety Bond.

**FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)**

*(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)*

Reference: .....

Bank Guarantee No.: .....

Date: .....

In consideration of the \_\_\_\_\_ [*Insert name of the Bidder*] (hereinafter referred to as 'selected Solar Power Developer' or 'SPD') submitting the response to RfS inter alia for ..... [*Insert title of the RfS*] of the capacity of ..... MW, at ..... [*Insert name of the place*], for supply of power there from on long term basis to the Client Organization, in response to the RfS dated..... issued by Solar Energy Corporation of India Limited (hereinafter referred to as SECI) and SECI considering such response to the RfS of ..... [*Insert name of the Bidder*] (which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and selecting the Project of the Solar Power Developer and issuing Letter of Award No. \_\_\_\_\_ to \_\_\_\_\_ (*Insert Name of selected Solar Power Developer*) as per terms of RfS and the same having been accepted by the selected SPD resulting in a Power Purchase Agreement (PPA) to be entered into with \_\_\_\_\_ [*Insert name of the Client Organization*], hereinafter referred to as "Client", for purchase of Power [from selected Solar Power Developer or a Project Company, M/s \_\_\_\_\_ {a Special Purpose Vehicle (SPV) formed for this purpose}, if applicable].

As per the terms of the RfS, the \_\_\_\_\_ [*Insert name & address of Bank*] hereby agrees unequivocally, irrevocably and unconditionally to pay to Client at \_\_\_\_\_ [*Insert Name of the Place from the address of the Client Organization*] forthwith on demand in writing from Client or any Officer authorised by it in this behalf, any amount up to and not exceeding Indian Rupees \_\_\_\_\_ [Total Value] only, on behalf of M/s \_\_\_\_\_ [*Insert name of the selected Solar Power Developer/Project Company*]

This guarantee shall be valid and binding on this Bank up to and including ..... and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to INR \_\_\_\_\_ (Indian Rupees \_\_\_\_\_ Only).

Our Guarantee shall remain in force until..... Client shall be entitled to invoke this Guarantee till .....

The Guarantor Bank hereby agrees and acknowledges that Client shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by Client, made in any format, raised at the above-mentioned address of the Guarantor Bank, in order to make the said payment to Client.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by \_\_\_\_\_ [*Insert name of the selected Solar Power Developer/ Project Company as applicable*] and/ or any other person. The Guarantor Bank shall not require Client to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against Client in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at \_\_\_\_\_ shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly Client shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the selected Solar Power Developer/ Project Company, to make any claim against or any demand on the selected Solar Power Developer/ Project Company or to give any notice to the selected Solar Power Developer/ Project Company or to enforce any security held by Client or to exercise, levy or enforce any distress, diligence or other process against the selected Solar Power Developer / Project Company.

The Guarantor Bank acknowledges that this BANK GUARANTEE is not personal to Client and may be assigned, in whole or in part, (whether absolutely or by way of security) by Client to any entity to whom Client is entitled to assign its rights and obligations under the PPA.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to INR \_\_\_\_\_ (Indian Rupees \_\_\_\_\_ Only) and it shall remain in force until ..... We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if Client serves upon us a written claim or demand.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Power of Attorney No.: \_\_\_\_\_

For

\_\_\_\_\_ *[Insert Name and Address of the Bank]* \_\_\_\_\_

Contact Details of the Bank:

E-mail ID of the Bank:

Banker's Stamp and Full Address.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

Witness:

1. ....

Signature

Name and Address

2. ....

Signature

Name and Address

Notes:

1. The Stamp Paper should be in the name of the Executing Bank and of appropriate value.
2. The Performance Bank Guarantee shall be executed by any of the Scheduled Commercial Banks as listed on the website of Reserve Bank of India (RBI) and amended as on the date of issuance of Bank Guarantee. Bank Guarantee issued by foreign branch of a Scheduled Commercial Bank is to be endorsed by the Indian branch of the same bank or State Bank of India (SBI).

**FORMAT OF PAYMENT ON ORDER INSTRUMENT TO BE ISSUED BY  
IREDA/REC/PFC (IN LIEU OF PBG)**

No.

Date

SECI,

Registered

\_\_\_\_\_,

\_\_\_\_\_

**Reg: M/s \_\_\_\_\_(insert name of the PPA signing entity) (Project No. \_\_\_\_\_(insert project ID issued by SECI) – Issuance of Payment on Order Instrument for an amount of Rs.\_\_\_\_\_**

Dear Sir,

1. It is to be noted that M/s. \_\_\_\_\_(insert name of the POI issuing Agency) (**‘IREDA/REC/PFC’**) has sanctioned a non-fund based limit loan of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) to M/s \_\_\_\_\_ under the Loan Agreement executed on \_\_\_\_\_ to execute Renewable Energy Projects.
2. At the request of M/s \_\_\_\_\_, on behalf of \_\_\_\_\_ (insert name of the SPV), this Payment on Order Instrument (POI) for an amount of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_(in words)). This Payment on Order Instrument comes into force immediately.
3. In consideration of the ----- [Insert name of the Bidder] (hereinafter referred to as selected Solar Power Developer’) submitting the response to RfS inter alia for selection of Contracted Capacity of ..... MW, at .....[Insert name of the place] under RfS for \_\_\_\_\_(insert name of the RfS), for supply of power there from on long term basis, in response to the RfS dated..... issued by Solar Energy Corporation of India Ltd (hereinafter referred to as SECI) and SECI considering such response to the RfS of .....[insert the name of the selected Solar Power Developer] (which expression shall unless repugnant to the context or meaning thereof include its executors, administrators, successors and assignees) and selecting the Solar Power Project of the Solar Power Developer (SPD) and issuing Letter of Award No ----- to (Insert Name of selected Solar Power Developer) as per terms of RfS and the same having been accepted by the selected SPD resulting in a Power Purchase Agreement (PPA) to be entered into, for purchase of Power [from selected Solar Power Developer or a Project Company, M/s ----- {a Special Purpose Vehicle (SPV) formed for this purpose}, if applicable ]. As per the terms of the RfS, the \_\_\_\_\_ [insert name & address of IREDA/PFC/REC] hereby agrees unequivocally, irrevocably and unconditionally to pay to SECI at [Insert Name of the Place from the address of the SECI] forthwith on demand in writing from SECI or any Officer authorized by it in this behalf, any amount up to and



not exceeding Rupees----- [Total Value] only, on behalf of M/s \_\_\_\_\_ [Insert name of the selected Solar Power Developer / Project Company].

4. In consideration of the above facts, IREDA/REC/PFC, having its registered office at \_\_\_\_\_, agrees to make payment for the sum of Rs. \_\_\_\_\_ lakhs (in words.....) to SECI on the following conditions:-

- (i) IREDA/REC/PFC agrees to make payment of the said amount unconditionally, without demur and without protest upon receipt of request from SECI within the validity period of this letter as specified herein;
- (j) The commitment of IREDA/REC/PFC, under this Payment of Order Instrument will have the same effect as that of the commitment under the Bank Guarantee issued by any Public Sector Bank and shall be enforceable in the same manner as in the case of a Bank Guarantee issued by a Bank and the same shall be irrevocable and shall be honored irrespective of any agreement or its breach between IREDA/REC/PFC or its constituents notwithstanding any dispute that may be raised by the against SECI;
- (k) The liability of IREDA/REC/PFC continues to be valid and binding on IREDA/REC/PFC and shall not be terminated, impaired and discharged, by virtue of change in its constitution and specific liability under letter of undertaking shall be binding on its successors or assignors;
- (l) The liability of IREDA/REC/PFC shall continue to be valid and binding on IREDA/REC/PFC and shall not be terminated/ impaired/ discharged by any extension of time or variation and alternation made given or agreed with or without knowledge or consent of the parties (SECI and Bidding Party), subject to the however to the maximum extent of amount stated herein and IREDA/REC/PFC is not liable to any interest or costs etc.;
- (m) This Payment of Order Instrument can be invoked either partially or fully, till the date of validity;
- (n) IREDA/REC/PFC agrees that it shall not require any proof in addition to the written demand by SECI made in any format within the validity period. IREDA/REC/PFC shall not require SECI to justify the invocation of the POI against the SPV/SPD, to make any claim against or any demand against the SPV/SPD or to give any notice to the SPV/SPD;
- (o) The POI shall be the primary obligation of IREDA/REC/PFC and SECI shall not be obliged before enforcing the POI to take any action in any court or arbitral proceedings against the SPV/SPD;
- (p) Neither SECI is required to justify the invocation of this POI nor shall IREDA/REC/PFC have any recourse against SECI in respect of the payment made under letter of undertaking;

5. Notwithstanding anything contrary contained anywhere in this POI or in any other documents, this POI is and shall remain valid up to\_\_\_\_\_ and IREDA/REC/PFC shall make payment thereunder only if a written demand or request is raised within the said date and to the maximum extent of Rs.....and IREDA/REC/PFC shall in no case, be liable for any interest, costs, charges and expenses and IREDA's/REC's/PFC's liability in no case will exceed more than the above amount stipulated.
6. In pursuance of the above, IREDA/REC/PFC and SECI have signed an Umbrella Agreement dated \_\_\_\_ setting out the terms and conditions for issue of letter of undertaking by IREDA/REC/PFC to SECI and the said terms and conditions shall be read as a part of this letter of undertaking issued for the project of the project of PP mentioned above.

Thanking you,

Yours faithfully

For and on behalf of

M/s. \_\_\_\_\_

(Name of the POI issuing agency).

( )

General Manager (TS)

Copy to:-

M/s. \_\_PP\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ As per their request

( )

General Manager (TS)

**FORMAT OF INSURANCE SURETY BOND TOWARDS PERFORMANCE  
SECURITY**

*(To be stamped in accordance with stamp act of India)*

Insurance Surety Bond No.:

Date:

To

Solar Energy Corporation of India Limited,  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi - 110 023

Dear Sir,

In consideration of Solar Energy Corporation of India Limited (hereinafter referred to as SECI, which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s..... *[Insert name of Solar Power Developer]*..... with its Registered/Head Office at..... (Hereinafter referred to as the 'Solar Power Developer' or 'SPD', which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), the project of capacity of .....MW for supply of power there from on long term basis, in response to the RfS dated..... issued by SECI by issuing Letter of Award No. ....dated..... and the same having been unequivocally accepted by the SPD, resulting into a Power Purchase Agreement (PPA) to be entered, for purchase of Power [from selected Solar Power Developer or a Project Company, M/s ..... {a Special Purpose Vehicle (SPV) formed for this purpose}, if applicable] and the SPD having agreed to provide a Performance Guarantee of the amount up to and not exceeding Indian Rupees .....*[Total Value]* only.

We ..... *[Name & Address of the "Insurer"]* ..... having its Head Office at ..... (hereinafter referred to as the 'Insurer', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay SECI unequivocally, irrevocably and unconditionally, on demand any and all amount to the extent of amount up to and not exceeding Indian Rupees ..... *[Total value]* on behalf of M/s ..... *[Insert name of the selected SPD]* at any time up to ..... *[days/month/year]* without any condition, demur, reservation, contest, recourse or protest and/or without any reference to the SPD. Any such demand made by SECI on the Insurer shall be conclusive and binding notwithstanding any difference between the SECI and the SPD or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Insurer undertakes not to revoke this Insurance Surety Bond during its currency and or any period extended under the contract, without prior consent of SECI and

further agrees that the guarantee herein contained shall be enforceable till SECI discharges this guarantee.

SECI shall have the fullest liberty, without affecting in any way the liability of the Insurer under this Insurance Surety Bond, from time to time to extend the performance of the Contract by the SPD for the purpose of which, the Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition, protest and the Insurer shall at no point in time have an option of revoking the same, SECI shall have the fullest liberty, without affecting this Insurance Surety Bond, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the SPD, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Power Purchase Agreement between SECI and SPD or any other course or remedy or security available to SECI. The Insurer shall not be released of its obligations under these presents by any exercise by SECI of its liberty with reference to the aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of SECI or any other indulgence shown by SECI or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Insurer.

The Insurer also agrees and undertakes that SECI at its option shall be entitled to enforce this Insurance Surety Bond against the Insurer as a Surety, in the first instance without proceeding against the SPD and notwithstanding any security or other guarantee that SECI may have in relation to the SPD's liabilities.

The Insurer hereby agrees and acknowledges that the SECI shall have a right to invoke this Insurance Surety Bond in part or in full, as it may deem fit.

The Insurer hereby expressly agrees that it shall not require any proof in addition to the written demand by SECI, made in any format, raised at the above-mentioned address of the Insurer, in order to make the said payment to SECI.

The Insurer shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by \_\_\_\_\_ [Insert name of the Bidder/SPD] and/ or any other person. The Insurer shall not require SECI to justify the invocation of this Insurance Surety Bond, nor shall the Insurer have any recourse against SECI in respect of any payment made hereunder.

This Insurance Surety Bond shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Insurer.

The Insurer acknowledges that this Insurance Surety Bond is not personal to SECI and may be assigned, in whole or in part, (whether absolutely or by way of security) by SECI to any entity to whom SECI is entitled to assign its rights and obligations under the RfS.

Notwithstanding anything contained hereinabove our liability under this Insurance Surety Bond is restricted to INR ..... (Indian Rupees ..... only) and it shall remain in force up to and including ..... and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s .....[SPD's Name] on whose behalf this Insurance Surety Bond has been given.

Dated this ..... day of ..... 20..... at.....

.....  
(Signature)

.....  
(Name)

.....  
(Designation with Insurer stamp)

**Email id of the Branch for confirmation of this Bond: .....**

Authorized Vide Power of Attorney No.....

Date.....

WITNESS :

1.....

(Signature)

.....  
(Name)

.....  
(Official Address)

2. ....

(Signature)

.....  
(Name)

.....  
(Official Address)

**Notes :**

1. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
2. SECI shall be the Creditor, the SPD shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
3. The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of SPD/Insurer issuing the Insurance Surety Bond.

**FORMAT FOR BOARD RESOLUTIONS**

The Board, after discussion, at the duly convened Meeting on ..... [Insert date], with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956 or Companies Act 2013, as applicable, passed the following Resolution:

**1. RESOLVED THAT** Mr./ Ms. ...., be and is hereby authorized to do on our behalf, all such acts, deeds and things necessary in connection with or incidental to our response to RfS vide RfS No. \_\_\_\_\_ for \_\_\_\_\_ (insert title of the RfS), including signing and submission of all documents and providing information/ response to RfS to Solar Energy Corporation of India Limited (SECI), representing us in all matters before SECI, and generally dealing with SECI in all matters in connection with our bid for the said Project. *(To be provided by the Bidding Company or the Lead Member of the Consortium)*

**2. FURTHER RESOLVED THAT** pursuant to the provisions of the Companies Act, 1956 or Companies Act, 2013, as applicable and compliance thereof and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to invest total equity in the Project. *(To be provided by the Bidding Company)*

*[Note: In the event the Bidder is a Bidding Consortium, in place of the above resolution at Sl. No. 2, the following resolutions are to be provided]*

**FURTHER RESOLVED THAT** pursuant to the provisions of the Companies Act, 1956 or Companies Act, 2013, as applicable and compliance thereof and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to invest (-----%) equity [Insert the % equity commitment as specified in Consortium Agreement] in the Project. **(To be provided by each Member of the Bidding Consortium including Lead Member such that total equity is 100%)**

**FURTHER RESOLVED THAT** approval of the Board be and is hereby accorded to participate in consortium with M/s ----- [Insert the name of other Members in the Consortium] and Mr/ Ms....., be and is hereby authorized to execute the Consortium Agreement. *(To be provided by each Member of the Bidding Consortium including Lead Member)*

And

**FURTHER RESOLVED THAT** approval of the Board be and is hereby accorded to contribute such additional amount over and above the percentage limit (specified for the Lead Member in the Consortium Agreement) to the extent becoming necessary towards the total equity share in the Project Company, obligatory on the part of the Consortium pursuant to the terms and conditions contained in the Consortium Agreement dated ..... executed by the Consortium as per the provisions of the RfS. ***[To be passed by the Lead Member of the Bidding Consortium]***

## **Certified True Copy**

-----

**(Signature, Name and Stamp of Company Secretary)**

### **Notes:**

- 1) This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary/ Director.
- 2) The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.
- 3) This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act, 1956 or Companies Act, 2013 as applicable may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing Company and the authorizations granted therein are true and valid.

**FORMAT FOR CONSORTIUM AGREEMENT**

*(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)*

THIS Consortium Agreement (“Agreement”) executed on this \_\_\_\_ Day of \_\_\_\_\_ Two Thousand \_\_\_\_ between M/s \_\_\_\_\_ [Insert name of Lead Member] a Company incorporated under the laws of \_\_\_\_\_ and having its Registered Office at \_\_\_\_\_ (hereinafter called the “**Member-1**”, which expression shall include its successors, executors and permitted assigns) and M/s \_\_\_\_\_ a Company incorporated under the laws of \_\_\_\_\_ and having its Registered Office at \_\_\_\_\_ (hereinafter called the “**Member-2**”, which expression shall include its successors, executors and permitted assigns), M/s \_\_\_\_\_ a Company incorporated under the laws of \_\_\_\_\_ and having its Registered Office at \_\_\_\_\_ (hereinafter called the “**Member-n**”, which expression shall include its successors, executors and permitted assigns), [The Bidding Consortium should list the details of all the Consortium Members] for the purpose of submitting response to RfS and execution of Power Purchase Agreement (in case of award), against RfS No. \_\_\_\_\_ dated \_\_\_\_\_ issued by Solar Energy Corporation of India Limited (SECI) a Company incorporated under the Companies Act, 2013, and having its Registered Office at 6th Floor, Plate-B, NBCC Office Block Tower-2, East Kidwai Nagar, New Delhi - 110023

WHEREAS, each Member individually shall be referred to as the “Member” and all of the Members shall be collectively referred to as the “Members” in this Agreement.

WHEREAS SECI desires to purchase Power under RfS for \_\_\_\_\_ (insert title of the RfS);

WHEREAS, SECI had invited response to RfS vide its Request for Selection (RfS) dated \_\_\_\_\_

WHEREAS the RfS stipulates that in case response to RfS is being submitted by a Bidding Consortium, the Members of the Consortium will have to submit a legally enforceable Consortium Agreement in a format specified by SECI wherein the Consortium Members have to commit equity investment of a specific percentage for the Project.

NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:

In consideration of the above premises and agreements all the Members in this Bidding Consortium do hereby mutually agree as follows:

1. We, the Members of the Consortium and Members to the Agreement do hereby unequivocally agree that Member-1 (M/s \_\_\_\_\_), shall act as the Lead Member as defined in the RfS for self and agent for and on behalf of Member-2, \_\_\_\_\_, Member-n and to submit the response to the RfS.



2. The Lead Member is hereby authorized by the Members of the Consortium and Members to the Agreement to bind the Consortium and receive instructions for and on their behalf.
3. Notwithstanding anything contrary contained in this Agreement, the Lead Member shall always be liable for the equity investment obligations of all the Consortium Members i.e. for both its own liability as well as the liability of other Members.
4. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective equity obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
5. Subject to the terms of this Agreement, the share of each Member of the Consortium in the issued equity share capital of the Project Company is/shall be in the following proportion:

<b>Name</b>	<b>Percentage</b>
Member 1	---
Member 2	---
Member n	---
<b>Total</b>	100%

We acknowledge that after the execution of PPA, the combined shareholding in the SPV/Project Company shall not fall below 51% at any time prior to 01 (one) year after the SCSD, except with the prior approval of SECI.

6. The Lead Member, on behalf of the Consortium, shall inter alia undertake full responsibility for liaising with Lenders or through internal accruals and mobilizing debt resources for the Project, and ensuring that the Seller achieves Financial Closure and commencement of power supply in terms of the PPA.
7. In case of any breach of any equity investment commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
8. Except as specified in the Agreement, it is agreed that sharing of responsibilities as aforesaid and equity investment obligations thereto shall not in any way be a limitation of responsibility of the Lead Member under these presents.

9. It is further specifically agreed that the financial liability for equity contribution of the Lead Member shall not be limited in any way so as to restrict or limit its liabilities. The Lead Member shall be liable irrespective of its scope of work or financial commitments.
10. This Agreement shall be construed and interpreted in accordance with the Laws of India and courts at New Delhi alone shall have the exclusive jurisdiction in all matters relating thereto and arising thereunder.
11. It is hereby further agreed that in case of being selected as the Successful Bidder, the Members do hereby agree that they shall furnish the Performance Guarantee in favour of SECI in terms of the RfS.
12. It is further expressly agreed that the Agreement shall be irrevocable and shall form an integral part of the Power Purchase Agreement (PPA) and shall remain valid until the expiration or early termination of the PPA in terms thereof, unless expressly agreed to the contrary by SECI.
13. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Members respectively from time to time in the response to RfS.
14. It is hereby expressly understood between the Members that no Member at any given point of time, may assign or delegate its rights, duties or obligations under the PPA except with prior written consent of SECI.
15. This Agreement
  - a) has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
  - b) sets forth the entire understanding of the Members hereto with respect to the subject matter hereof; and
  - c) may not be amended or modified except in writing signed by each of the Members and with prior written consent of SECI.
16. All the terms used in capitals in this Agreement but not defined herein shall have the meaning as per the RfS and PPA.

IN WITNESS WHEREOF, the Members have, through their authorized representatives, executed these present on the Day, Month and Year first mentioned above.

For M/s----- [Member 1]

-----

(Signature, Name & Designation of the person authorized vide Board Resolution Dated \_\_\_\_\_)

Witnesses:

1) Signature-----

Name:

Address:

2) Signature -----

Name:

Address:

For M/s----- [Member 2]

-----

(Signature, Name & Designation of the person authorized vide Board Resolution Dated \_\_\_\_\_)

Witnesses:

1) Signature -----

Name:

Address:

2) Signature -----

Name:

Address:

For M/s----- [Member n]

-----

(Signature, Name & Designation of the person authorized vide Board Resolution Dated \_\_\_\_\_)

Witnesses:

1) Signature -----

Name:

Address:

(2) Signature -----

Name:

Address:

Signature and stamp of Notary of the place of execution

## **Format 7.6**

### **FORMAT FOR FINANCIAL REQUIREMENT**

*(This should be submitted on the Letter Head of the Bidding Company/ Lead Member of Consortium)*

Ref. No. \_\_\_\_\_

Date: \_\_\_\_\_

From: \_\_\_\_\_ *(Insert name and address of Bidding Company/ Lead Member of Consortium)*

\_\_\_\_\_

Tel. #:

E-mail address#

**To**

**Solar Energy Corporation of India Limited  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi - 110 023**

Sub: Response to RfS No. \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_.

Dear Sir/ Madam,

We certify that the Bidding Company/Member in a Bidding Consortium is meeting the financial eligibility requirements as per the provisions of the RfS. Accordingly, the Bidder, with the support of its Affiliates, (strike out if not applicable) is fulfilling the minimum Net Worth criteria, by demonstrating a Net Worth of Rs. .... Cr. (..... in words) as on the last date of Financial Year 2023-24.

This Net Worth has been calculated in accordance with instructions provided in Clause 32.1 of the RfS.

#### **Exhibit (i): Applicable in case of Bidding Company**

For the above calculations, we have considered the Net Worth by Bidding Company and/ or its Affiliate(s) as per following details:

<b>Name of Bidding Company</b>	<b>Name of Affiliate(s) whose net worth is to be considered</b>	<b>Relationship with Bidding Company*</b>	<b>Net Worth (Rs. Crore)</b>
<b>Company 1</b>			
<b>Total</b>			

*\*The column for “Relationship with Bidding Company” is to be filled only in case the financial capability of Affiliate has been used for meeting Qualification Requirements. Further, documentary evidence to establish the relationship, duly certified by a practicing company secretary/ chartered accountant is required to be attached with the format.*

## **Exhibit (ii): Applicable in case of Bidding Consortium**

**(To be filled by each Member in a Bidding Consortium separately)**

**Name of Member:** *[Insert name of the Member]*

Net Worth Requirement to be met by Member: INR ----- Crore

For the above calculations, we have considered Net Worth by Member in Bidding Consortium and/ or its Affiliate(s) per following details:

<b>Name of Consortium Member Company</b>	<b>Name of Affiliate(s) whose net worth is to be considered</b>	<b>Relationship with Bidding Company* (If any)</b>	<b>Net Worth (Rs. Crore)</b>	<b>Equity Commitment (in %age) in Bidding Consortium</b>	<b>Committed Net Worth (Rs. Crore)</b>
<b>Company 1</b>					
---					
---					
<b>Total</b>					

*\* The column for “Relationship with Bidding Company” is to be filled only in case the financial capability of Affiliate has been used for meeting Qualification Requirements. Further, documentary evidence to establish the relationship, duly certified by a practicing company secretary/chartered accountant is required to be attached with the format*

Further, we certify that the Bidding Company/ Member in the Bidding Consortium, with the support of its Affiliates, (strike out if not applicable) is fulfilling the minimum Liquidity Criteria by demonstrating a Working Capital of INR \_\_\_\_\_(in words) as on the end of Financial Year 2023-24.

## **Exhibit (i): Applicable in case of Bidding Company**

For the above calculations, we have considered Working Capital by Bidding Company and/ or its Affiliate(s) as per following details:

<b>Name of Bidding</b>	<b>Name of Affiliate(s) whose Working Capital is to be</b>	<b>Relationship with Bidding</b>	<b>Working Capital (Rs.</b>
------------------------	--	----------------------------------	-----------------------------

Company	considered	Company*	Cröre)
Company 1			
Total			

*\*The column for “Relationship with Bidding Company” is to be filled only in case the financial capability of Affiliate has been used for meeting Qualification Requirements. Further, documentary evidence to establish the relationship, duly certified by a practicing company secretary/chartered accountant is required to be attached with the format.*

#### **Exhibit (ii): Applicable in case of Bidding Consortium**

**(To be filled by each Member in a Bidding Consortium separately)**

**Name of Member:** *[Insert name of the Member]*

Working Capital requirement to be met by Member: INR -----Cröre

For the above calculations, we have considered Working Capital by Member in Bidding Consortium and/ or its Affiliate(s) as per following details:

Name of Consortium Member Company	Name of Affiliate(s) whose Working Capital is to be considered	Relationship with Bidding Company * (If Any)	Working Capital(Rs. Cröre)	Equity Commitment (in %age) in Bidding Consortium	Proportionate Working Capital (Rs. Cröre)
Company 1					
---					
---					
Total					

*\* The column for “Relationship with Bidding Company” is to be filled only in case the financial capability of Affiliate has been used for meeting Qualification Requirements. Further, documentary evidence to establish the relationship, duly certified by a practicing company secretary/chartered accountant is required to be attached with the format*

**(Signature & Name of the Authorized Signatory)**

**(Signature and Stamp of CA)**

**Membership No.**

**Regn. No. of the CA's Firm:**

**Date:**

Note: (i) Along with the above format, in a separate sheet on the letterhead of the Chartered Accountant's Firm, provide details of computation of Net Worth and Annual Turnover duly certified by the Chartered Accountant.

(ii) Certified copies of Balance sheet, Profit & Loss Account, Schedules and Cash Flow Statements are to be enclosed in complete form along with all the Notes to Accounts.

**UNDERTAKING**

*(To be submitted on the letterhead of the Bidder)*

We, hereby provide this undertaking to Solar Energy Corporation of India Limited, in respect to our response to RfS vide RfS No. \_\_\_\_\_ dated \_\_\_\_\_, that as on \_\_\_\_\_ (Insert bid submission deadline), M/s \_\_\_\_\_ (insert name of the Bidder), or any of its Affiliates is not a willful defaulter to any lender. We further undertake that as on \_\_\_\_\_ (insert bid submission deadline), M/s \_\_\_\_\_ (insert name of the Bidder) & any of its Affiliate including any Consortium Member & any of its Affiliate, their directors have not been barred or included in the blacklist by any government agency or authority in India, the government of the jurisdiction of the Bidder or Members where they are incorporated or the jurisdiction of their principal place of business, any international financial institution such as the World Bank Group, Asian Development Bank, African Development Bank, Inter-American Development Bank, Asian Infrastructure Investment Bank etc., or the United Nations or any of its agencies.

(Name and Signature of the Authorized Signatory)



**FORMAT FOR DISCLOSURE**

(To be submitted on the Letter Head of the Bidding Company/ Each Member of Consortium)

**DISCLOSURE**

Ref. No. \_\_\_\_\_

Date: \_\_\_\_\_

From: \_\_\_\_\_ *(Insert name and address of Bidding Company/ Lead Member of Consortium)*

\_\_\_\_\_  
\_\_\_\_\_

Tel.#: Fax#:

E-mail address#

To  
Solar Energy Corporation of India Limited  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi - 110 023

Sub: Response to RfS No. \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_

Dear Sir/ Madam,

We hereby declare and confirm that only we are participating in the RfS Selection process for the RfS No. \_\_\_\_\_ dated \_\_\_\_\_ and that our Parent, Affiliate or Ultimate Parent or any Group Company with which we have direct or indirect relationship are not separately participating in this selection process.

We further declare that the above statement is true & correct. We undertake that if at any stage it is found to be incorrect, in addition to actions applicable under the RfS/PPA including but not limited to cancellation of our response to this RfS and LoA/PPA as applicable, we, i.e. M/s \_\_\_\_\_ (enter name of the bidding company/member in a consortium), including our Parent, Ultimate Parent, and our Affiliates shall be suspended/debarred from participating in any of the upcoming tenders issued by SECI for a period of 2 years from the date of default as notified by SECI.

We also understand that the above is in addition to the penal consequences that may follow from the relevant laws for the time being in force.

We further declare that we have read the provisions of Clause 30.4 of the RfS, and are complying with the requirements as per the referred OM dated 23.02.2023 except Sl.17 of the OM, including subsequent amendments and clarifications thereto. Accordingly, we are also enclosing necessary certificates (Annexure to this format) in support of the above compliance under the RfS. We understand that in case of us being selected under this RfS, any of the above

certificates is found false, SECI shall take appropriate action as deemed necessary.

We further declare that we are fully aware of the binding provisions of the ALMM Order and the Lists(s) thereunder, while quoting the tariff in RfS for \_\_\_\_\_ (Enter the name of the RfS).

We further understand that the List-I (Solar PV Modules) of ALMM Order, Annexure-I of the OM, issued by MNRE on 10th March, 2021 will be updated by MNRE from time to time. We also understand that the Modules to be procured for each project, shall be from the List-I of the ALMM Order applicable on the date of invoicing of such modules.

We also further understand and accept that we shall be liable for penal action, including but not limited to blacklisting and invocation of Performance Bank Guarantee, if we are found not complying with the provisions of ALMM Order, including those mentioned above.

Dated the \_\_\_\_\_ day of \_\_\_\_\_, 20....

Thanking you,

We remain,

Yours faithfully,

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

**FORMAT FOR DISCLOSURE**

*(To be submitted on the Letter Head of the Bidding Company/ Each Member of Consortium)*

*(To be submitted by all such bidders in which a common Company/companies directly/indirectly own(s) more than 10% but less than 26% shareholding)*

**DISCLOSURE**

Ref. No. \_\_\_\_\_

Date: \_\_\_\_\_

From: \_\_\_\_\_ (Insert name and address of Bidding Company/ Lead Member of Consortium)

\_\_\_\_\_

\_\_\_\_\_

Tel. #: Fax#:

E-mail address#

To

Solar Energy Corporation of India Limited  
6th Floor, Plate-B, NBCC Office Block Tower-2,  
East Kidwai Nagar, New Delhi - 110 023

Sub: Response to RfS No. \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_.

Dear Sir/ Madam,

We hereby declare and confirm that in terms of the definitions of the RfS, M/s \_\_\_\_\_ (enter name of the common shareholder) is our Group Company, and has a direct/indirect shareholding of less than 26% in the bidding company. M/s \_\_\_\_\_ (enter name of the common shareholder) also holds directly/indirectly less than 26% shareholding in other Companies which may participate in this RfS, i.e. RfS No. \_\_\_\_\_.

We undertake that M/s \_\_\_\_\_ (enter name of the above common shareholder) is not a party to the decision-making process for submission of response to this RfS by M/s \_\_\_\_\_ (enter name of the bidding company/member in the consortium). We further undertake that while undertaking any action as part of our response to RfS, we are not complicit with other such bidders participating in this RfS, in which M/s \_\_\_\_\_ (enter name of the common shareholder) has less than 26% direct/indirect shareholding, if any.

We further declare that the above statement is true & correct. We undertake that if at any stage it is found to be incorrect, in addition to actions applicable under the RfS/PPA including but not limited to cancellation of our response to this RfS and LoA/PPA as applicable, we, i.e. M/s \_\_\_\_\_ (enter name of the bidding company/member in a consortium), including our

Parent, Ultimate Parent, and our Affiliates shall be suspended/debarred from participating in any of the upcoming tenders issued by SECI for a period of 2 years from the date of default as notified by SECI.

We also understand that the above is in addition to the penal consequences that may follow from the relevant laws for the time being in force.

We further declare that we have read the provisions of Clause 30.4 of the RfS, and are complying with the requirements as per the referred OM dated 23.02.2023 except Sl. 17 of the OM, including subsequent amendments and clarifications thereto. Accordingly, we are also enclosing necessary certificates (Annexure to this format) in support of the above compliance under the RfS. We understand that in case of us being selected under this RfS, any of the above certificates is found false, SECI shall take appropriate action as deemed necessary.

We further declare that we are fully aware of the binding provisions of the ALMM Order and the Lists(s) thereunder, while quoting the tariff in RfS for \_\_\_\_\_ (Enter the name of the RfS).

We further understand that the List-I (Solar PV Modules) of ALMM Order, Annexure-I of the OM, issued by MNRE on 10th March, 2021 will be updated by MNRE from time to time. We also understand that the Modules to be procured for each project, shall be from the List-I of the ALMM Order applicable on the date of invoicing of such modules.

We also further understand and accept that we shall be liable for penal action, including but not limited to blacklisting and invocation of Performance Bank Guarantee, if we are found not complying with the provisions of ALMM Order, including those mentioned above.

Dated the \_\_\_\_\_ day of \_\_\_\_\_, 20....

Thanking you,

We remain,

Yours faithfully,

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

**DECLARATION**

**RESTRICTION ON PROCUREMENT FROM CERTAIN COUNTRIES:**

**MoF OM No 7/10/2021-PPD(1) dated 23.03.2023**

*(To be submitted on the Letter Head of the Bidding Company/ Each Member of Consortium)*

Ref. No. \_\_\_\_\_

Date: \_\_\_\_\_

From: \_\_\_\_\_ *(Insert name and address of Bidding Company/Member of Consortium)*

\_\_\_\_\_

Tel.#: \_\_\_\_\_

E-mail address# \_\_\_\_\_

To

Solar Energy Corporation of India Limited

6th Floor, Plate-B, NBCC Office Block Tower-2,

East Kidwai Nagar, New Delhi - 110 023

Sub: Response to the RfS No ..... dated .....

Dear Sir/ Madam,

This is with reference to attached order No. OM no. 7/10/2021-PPD(1) dated 23.03.2023 issued by Department of Expenditure, MoF, Govt of India.

We are hereby submitting the following declaration in this regard:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. Where applicable, evidence of valid registration by the Competent Authority shall be attached]."

We further declare that the above statement is true & correct. We are aware that if at any stage it is found to be incorrect, our response to the tender will be rejected.

Dated the \_\_\_\_\_ day of \_\_\_\_\_, 20....

Thanking you,

We remain,

Yours faithfully,

Name, Designation, Seal and Signature of Authorized Signatory.

Enclosure: OM dated 23.02.2023, as referred above

[https://assets-bg.gem.gov.in/resources/upload/shared\\_doc/Order-Public-Procurement-No-4-Restrictions-under-Rule-144-xi-of-the-General-Financial-Rules-GFRs-2017.pdf](https://assets-bg.gem.gov.in/resources/upload/shared_doc/Order-Public-Procurement-No-4-Restrictions-under-Rule-144-xi-of-the-General-Financial-Rules-GFRs-2017.pdf)

**FORMAT FOR SUBMISSION OF FINANCIAL BID**

*(The Covering Letter should be submitted on the Letter Head of the Bidding Company/ Lead Member of Consortium)*

Ref. No. \_\_\_\_\_

Date: \_\_\_\_\_

From: \_\_\_\_\_ *(Insert name and address of Bidding Company/ Lead Member of Consortium)*

\_\_\_\_\_

\_\_\_\_\_

Tel. #:

Fax #:

E-mail address#

To

Solar Energy Corporation of India Limited

6th Floor, Plate-B, NBCC Office Block Tower-2,

East Kidwai Nagar, New Delhi - 110 023

Sub: Response to RfS No. \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_.

Dear Sir/ Madam,

I/ We, \_\_\_\_\_ *(Insert Name of the Bidder)* enclose herewith the Financial Proposal for selection of my/ firm for a cumulative capacity of 4.125 MW as Bidder for the above.

I/We have applied for Projects to be set up in IIT Kharagpur Campus under this RfS.

I/We agree that this offer shall remain valid for a period up to the date as on 12 months from the due date of submission of the response to RfS and such further period as may be mutually agreed upon.

Dated the \_\_\_\_\_ day of \_\_\_\_\_, 20....

Thanking you,

We remain,

Yours faithfully,

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

**Notes:**

- 1. There can be only one tariff for the entire project capacity applied for by the Bidder.*
- 2. If the bidder submits the financial bid in the Electronic Form at ETS portal not in line with the instructions mentioned therein, then the bid shall be considered as non-responsive.*
- 3. Tariff requirement shall be quoted as a fixed amount in Indian Rupees only. Conditional proposal shall be summarily rejected.*
- 4. In the event of any discrepancy between the values entered in figures and in words, the values entered in words shall be considered.*
- 5. Tariff should be in Indian Rupee up to two decimal places only.*

## **ANNEXURE - A**

### **TECHNICAL PARAMETER OF PV MODULE AND VARIOUS OTHER COMPONENTS FOR USE IN GRID CONNECTED SOLAR POWER PLANTS**

The Project selected under the RfS shall strictly adhere to the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, as amended vide the Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019, and subsequent amendments and clarifications.

All components of the PV plant shall be in accordance with technical specifications given in relevant IS/ IEC Standards. The design and commissioning also shall be as per latest IS/ IEC standards. The following are some of the technical measures required to ensure quality of the major components used in grid connected solar power Projects.

#### **1. SPV MODULES**

- a. 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

- b. In addition, SPV modules must qualify to IEC 61730 for safety qualification testing at 1000 V 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 Indian Standards as specified below:

Efficiency Measurements	IEC 61683
Environmental Testing	IEC 60068-2/ IEC 62093
Electromagnetic Compatibility (EMC)	IEC 61000-6-2, IEC 61000-6-4 & other relevant parts of IEC 61000
Electrical Safety	IEC 62103/ 62109-1&2
Anti-Islanding Protection	IEEE1547/IEC 62116/ UL1741 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 CENTRES**

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 Centres 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 body accredited Labs abroad will be acceptable.

### **5. WARRANTY**

- PV modules used in grid connected solar power plants must be warranted for peak output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- The modules shall be warranted for at least 10 years for failures due to material defects and workmanship.
- The mechanical structures, electrical works and overall workmanship of the grid solar power plants must be warranted for a minimum of 5 years.
- The Inverters/ PCUs installed in the solar power plant must have a warranty for 5 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<sup>2</sup>, AM 1.5, 250C)
- vi. Wattage, Im, Vm 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 SECI 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 SECI or Client Organization or any other designated agency to the remote monitoring portal of the power plants on a 24x7 basis.

SAFE DISPOSAL OF SOLAR PV MODULES

The developers will comply with the requirements under Hazardous & other Waste (Management and Transboundary Movement) Rules, 2016, as amended from time to time, as applicable. They will also ensure that all Solar PV modules and ESS components, if any, from their plant after their 'end of life' (when they become defective/ non-operational/ nonrepairable) 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.

## **8. CAPACITY OF SOLAR PV PROJECTS**

The rated capacity to be installed shall be considered as minimum DC Arrays Capacity and maximum AC Capacity at the delivery point as described below:

S. No.	Solar PV Project Capacity Bid	Minimum DC Arrays Capacity to be installed	Minimum Rated Inverter Capacity	Maximum AC Capacity Limit at Delivery point
1	10 MW	10 MW	10 MW	10 MW

Higher DC capacity arrays so as to achieve AC capacity limit as mentioned above for injection of energy at the delivery point to comply with the committed energy to be supplied under the PPA is allowed.

**SPECIAL INSTRUCTIONS TO BIDDERS FOR e-TENDERING**

**GENERAL**

The Special Instructions (for e-Tendering) supplement 'Instructions to Bidders', as given in these RfS Documents. Submission of Online Bids is mandatory for this RfS.

e-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-Tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, *Solar Energy Corporation of India Limited (SECI)* has adopted a secured and user friendly e-tender system enabling bidders to Search, View, Download tender document(s) directly from the e-tendering portal of M/s Electronic Tender.com (India) Pvt. Limited <https://www.bharat-electronictender.com> through ISN-ETS. This portal is based on the world's most 'secure' and 'user friendly' software from ElectronicTender®. A portal built using ElectronicTender's software is also referred to as ElectronicTender System® (ETS).

Benefits to Suppliers are outlined on the Home-page of the portal.

**INSTRUCTIONS**

**Tender Bidding Methodology:**

**Sealed Bid System**

Single Stage Two Envelope

**Broad Outline of Activities from Bidder's Perspective:**

1. Procure a Class III Digital Signing Certificate (DSC).
2. Register on ElectronicTender System® (ETS)
3. Create Marketing Authorities (MAs), Users and assign roles on ETS. It is mandatory to create at least one MA
4. View Notice Inviting Tender (NIT) on ETS
5. For this tender -- Assign Tender Search Code (TSC) to a MA
6. Download Official Copy of Tender Documents from ETS. Note: Official copy of Tender Documents is distinct from downloading 'Free Copy of Tender Documents'. To participate in a tender, it is mandatory to procure official copy of Tender Documents for that tender.
7. Clarification to Tender Documents on ETS
  - a) Query to SECI (Optional)
  - b) View response to queries posted by SECI
8. Bid-Submission on ETS
9. Respond to SECI Post-TOE queries

For participating in this tender online, the following instructions are to be read carefully. These

instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

## Digital Certificates

For integrity of data and authenticity/ non-repudiation of electronic records, and to be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC), of Class III, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

## Registration

To use the ElectronicTender® portal <https://www.bharat-electronictender.com>, vendors need to register on the portal. Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/ portal, and click on the 'Supplier Organization' link under 'Registration' (on the Home Page), and follow further instructions as given on the site. Pay Annual Registration Fee as applicable.

After successful submission of Registration details and payment of Annual Registration Fee, please contact ISN-ETS Helpdesk (as given below), to get your registration accepted/ activated.

### Important Note:

1. Interested bidders have to download official copy of the RfS & other documents after login into the e-tendering Portal of ISN-ETS <https://www.bharat-electronictender.com>. If the official copy of the documents is not downloaded from e-tendering Portal of ISN-ETS within the specified period of downloading of RfS and other documents, bidder will not be able to participate in the tender.
2. To minimize teething problems during the use of ETS (including the Registration process), it is recommended that the user should peruse the instructions given under 'ETS User-Guidance Centre' located on ETS Home Page, including instructions for timely registration on ETS. The instructions relating to 'Essential Computer Security Settings for Use of ETS' and 'Important Functionality Checks' should be especially taken into cognizance.

Please note that even after acceptance of your registration by the Service Provider, to respond to a tender you will also require time to complete activities related to your organization, such as creation of users, assigning roles to them, etc.

ISN-ETS/ Helpdesk	
Telephone/ Mobile	Customer Support: +91-124-4229071, 4229072 ( From 1000 HRS to 1800 HRS on all Working Days i.e. Monday to Friday except Government Holidays)
Email-ID	<a href="mailto:support@isn-ets.com">support@isn-ets.com</a> [Please mark CC: <a href="mailto:support@electronictender.com">support@electronictender.com</a> ]

**Some Bidding Related Information for this Tender (Sealed Bid)**

The entire bid-submission would be online on ETS (unless specified for Offline Submissions). Broad outline of submissions are as follows:

- Submission of Bid-Parts
  - Envelope I (Technical-Bid)
  - Envelope II (Financial-Bid)
- *Submission of digitally signed copy of Tender Documents/ Addendum*

In addition to the above, the bidders are required to submit certain documents physically offline also as per Clause 24.1 of the RfS, failing which the technical bids will not be opened.

*Note: The Bidder should also upload the scanned copies of all the above mentioned original documents as Bid-Annexures during Online Bid-Submission.*

### **Internet Connectivity**

If bidders are unable to access ISN-ETS's e-tender portal or Bid Documents, the bidders may please check whether they are using proxy to connect to internet or their PC is behind any firewall and may contact their system administrator to enable connectivity. Please note that Port SSL/ 443 should be enabled on proxy/firewall for HTTPS connectivity. Dial-up/ Broad and internet connectivity without Proxy settings is another option

### **SPECIAL NOTE ON SECURITY AND TRANSPARENCY OF BIDS**

Security related functionality has been rigorously implemented in ETS in a multidimensional manner. Starting with 'Acceptance of Registration by the Service Provider', provision for security has been made at various stages in Electronic Tender's software. Specifically, for Bid Submission, some security related aspects are outlined below:

As part of the Electronic Encrypted® functionality, the contents of both the 'ElectronicForms®' and the 'Main-Bid' are securely encrypted using a Pass-Phrase created by the Bidder himself. Unlike a 'password', a Pass-Phrase can be a multi-word sentence with spaces between words (e.g. I love this World). A Pass-Phrase is easier to remember, and more difficult to break. It is mandatory that a separate Pass-Phrase be created for each Bid-Part. This method of bid-encryption does not have the security and data-integrity related vulnerabilities which are inherent in e-tendering systems which use Public-Key of the specified officer of a Buyer organization for bid-encryption. Bid-encryption in ETS is such that the Bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of e-tendering service provider.

**CAUTION:** All bidders must fill ElectronicForms® for each bid-part sincerely and carefully, and avoid any discrepancy between information given in the ElectronicForms® and the corresponding Main-Bid. For transparency, the information submitted by a bidder in the ElectronicForms® is made available to other bidders during the Online Public TOE. If it is

found during the Online Public TOE that a bidder has not filled in the complete information in the ElectronicForms<sup>®</sup>, the TOE officer may make available for downloading the corresponding Main-Bid of that bidder at the risk of the bidder. **If variation is noted between the information contained in the ElectronicForms<sup>®</sup> and the 'Main-Bid', the contents of the ElectronicForms<sup>®</sup> shall prevail.**

In case of any discrepancy between the values mentioned in figures and in words, the value mentioned in words will prevail.

**The bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid-Part is submitted into the 'Time Locked Electronic Key Box (EKB)' after the deadline of Bid Submission, and before the commencement of the Online TOE of Technical Bid.** The process of submission of this Pass-Phrase in the 'Time Locked Electronic Key Box' is done in a secure manner by first encrypting this Pass-Phrase with the designated keys provided by SECI.

Additionally, the bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid-Part is submitted to SECI in a sealed envelope before the start date and time of the Tender Opening Event (TOE).

There is an additional protection with SSL Encryption during transit from the client-end computer of a Supplier organization to the e-Tendering Server/ Portal.

### **OTHER INSTRUCTIONS**

For further instructions, the vendor should visit the home-page of the portal <https://www.bharat-electrontender.com>, and go to the **User-Guidance Center**

The help information provided through 'ETS User-Guidance Center' is available in three categories – Users intending to Register/ First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Supplier organizations. Various links (including links for User Manuals) are provided under each of the three categories.

Important Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups, and minimize teething problems during the use of ETS.

### **SEVEN CRITICAL DO'S AND DON'TS FOR BIDDERS**

Specifically, for Supplier organizations, the following '**SEVEN KEY INSTRUCTIONS for BIDDERS**' must be assiduously adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) of Class III well in advance of your tender submission deadline on ETS.
2. Register your organization on ETS well in advance of the important deadlines for your first tender on ETS viz 'Date and Time of Closure of Procurement of Tender Documents'

and 'Last Date and Time of Receipt of Bids'. Please note that even after acceptance of your registration by the Service Provider, to respond to a tender you will also require time to complete activities related to your organization, such as creation of -- Marketing Authority (MA) [i.e. a department within the Supplier/ Bidder Organization responsible for responding to tenders], users for one or more such MAs, assigning roles to them, etc. It is mandatory to create at least one MA. This unique feature of creating an MA enhances security and accountability within the Supplier/ Bidder Organization

3. Get your organization's concerned executives trained on ETS well in advance of your first tender submission deadline on ETS.
4. For responding to any particular tender, the tender (i.e. its Tender Search Code or TSC) has to be assigned to an MA. Further, an 'Official Copy of Tender Documents' should be procured/ downloaded before the expiry of Date and Time of Closure of Procurement of Tender Documents. Note: Official copy of Tender Documents is distinct from downloading 'Free Copy of Tender Documents'. Official copy of Tender Documents is the equivalent of procuring physical copy of Tender Documents with official receipt in the paper-based manual tendering system.
5. Submit your bids well in advance of tender submission deadline on ETS (There could be last minute problems due to internet timeout, breakdown, etc.)
6. It is the responsibility of each bidder to remember and securely store the Pass-Phrase for each Bid-Part submitted by that bidder. The bidders are required to submit correct, valid and operative Pass-Phrase to decrypt either Technical Bid Part or Financial Bid Part in a separate sealed envelope before due date and time of submission of bid. In the event, the bids are not opened with the pass-phrase submitted by bidder, SECI may ask for re-submission/ clarification for correct pass-phrase. If bidder fails to submit correct pass-phrase immediately as requested by SECI, the Bid Processing Fee and Document Fee, if applicable, shall be forfeited and bid shall not be opened, and EMD shall be refunded. No request on this account shall be entertained by SECI.
7. ETS will make your bid available for opening during the Online Public Tender Opening Event (TOE) 'ONLY IF' the status pertaining Overall Bid-Submission is 'COMPLETE'. For the purpose of record, the bidder can generate and save a copy of 'Final Submission Receipt'. This receipt can be generated from 'Bid-Submission Overview Page' only if the status pertaining overall Bid-Submission' is 'COMPLETE'

**NOTE:**

*While the first three instructions mentioned above are especially relevant to first-time users of ETS, the fourth, fifth, sixth and seventh instructions are relevant at all times.*

**ANNEXURE - C**

**TENTATIVE LIST OF BUILDINGS IN IIT KHARAGPUR CAMPUS**

*Separately attached with the RfS document.*



**ANNEXURE – D**

**CHECKLIST FOR COMPLETION**

Documents against Completion of Project

Name of successful bidder: \_\_\_\_\_

Allocated Capacity: \_\_\_\_\_ kWp/MWp

Allocation letter No.: \_\_\_\_\_

Sanction letter No. : \_\_\_\_\_

Name of Beneficiary: \_\_\_\_\_

Installed Capacity: \_\_\_\_ kW/MW

S. No	Documents	Yes/No	Page No.
1	Copy of Inspection report along with the required documents as per SECI format		
2	Copy of CEIG Certificate		
3	Copy of Beneficiary/client Completion certificate as per Annexure (Mandatory when date of inspection is after date of commissioning)		
4	Solar PV plant Insurance Cover		
5	Net Metering Installation report/Intimation to DISCOM /NOC from DISCOM regarding plant connectivity approval		
6	JMR (Generation Data Certificate) from the date of Commissioning as certified by the client organization/ rooftop owner till the date inspection will also be needed for declaring the commissioning of the Rooftop Solar Power Plant if the inspection of the plant is carried out after the SCD.		

Signature

(Authorized Signatory)

**ANNEXURE - E**

**BENEFICIARY COMMISSIONING/COMPLETION REPORT FOR GRID  
CONNECTED SOLAR PHOTOVOLTAIC POWER PLANT**

Certified that a Grid Connected SPV Power Plant of ..... kWp/MWp capacity has been installed and commissioned at the site .....District ..... of ..... which has been installed and commissioned by M/S ..... on ..... The system is as per SECI RfS No: ..... dated ..... and its subsequent amendment and clarifications specifications. The system has been checked for its performance on ..... and the plant made operational. .

Signature of IIT Kharagpur's representative,

Date & Seal

## **ANNEXURE- F**

### **QUALITY CERTIFICATION, STANDARDS AND TESTING FOR GRID- CONNECTED ROOFTOP SOLAR PV SYSTEMS/POWER PLANTS**

Quality certification and standards for grid-connected rooftop solar PV systems are essential for the successful mass-scale implementation of this technology. It is also imperative to put in place an efficient and rigorous monitoring mechanism, adherence to these standards. Hence, all components of grid-connected rooftop solar PV system/ plant must conform to the relevant standards and certifications given below:

<b>Solar PV Modules/Panels</b>	
IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61701	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- Part 1/ IS 16170: Part 1	Photovoltaic (PV) module performance testing and energy rating –: Irradiance and temperature performance measurements, and power rating
IEC 62716	Photovoltaic (PV) Modules – Ammonia (NH <sub>3</sub> ) Corrosion Testing (As per the site condition like dairies, toilets)
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, Part 2: Requirements for Testing
<b>Solar PV Inverters</b>	
IEC 62109-1, IEC 62109-2	Safety of power converters for use in photovoltaic power systems – Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems Part 2: Particular requirements for inverters. Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IEC/IS 61683 (as applicable)	Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)
IEC 62116/ UL 1741/ IEEE 1547 (as applicable)	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding Prevention Measures
IEC 60255-27	Measuring relays and protection equipment – Part 27: Product safety requirements
IEC 60068-2 / IEC 62093 (as applicable)	Environmental Testing of PV System – Power Conditioners and Inverters
<b>Fuses</b>	

IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit breakers (AC/DC): a) Low-voltage Switchgear and Control-gear, Part 1: General rules b) Low-Voltage Switchgear and Control-gear, Part 2: Circuit Breakers c) Low-voltage switchgear and Control-gear, Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units d) EN 50521: Connectors for photovoltaic systems – Safety requirements and tests
IEC 60269-6	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems
<b>Surge Arrestors</b>	
BFC 17-102:2011	Lightening Protection Standard
IEC 60364-5-53/ IS 15086-5 (SPD)	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control
IEC 61643-11:2011	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
<b>Cables</b>	
IEC 60227/IS 694, IEC 60502/IS 1554 (Part 1 & 2)/ IEC69947 (as applicable)	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems (BT(DE/NOT)258), mainly for DC Cables
<b>Earthing /Lightning</b>	
IEC 62561 Series (Chemical earthing) (as applicable)	IEC 62561-1 Lightning protection system components (LPSC) - Part 1: Requirements for connection components IEC 62561-2 Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes IEC 62561-7 Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds
<b>Junction Boxes</b>	
IEC 60529	Junction boxes and solar panel terminal boxes shall be of the thermo-plastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
<b>Energy Meter</b>	
IS 16444 or as specified by DISCOMs	A.C. Static direct connected watt-hour Smart Meter Class 1 and 2 — Specification (with Import & Export/Net energy measurements)
<b>Solar PV Roof Mounting Structure</b>	
IS 2062/IS 4759	Material for the structure mounting

**SCOPE OF WORK & TECHNICAL SPECIFICATIONS**

The proposed Project shall be commissioned as per the technical specifications given below.

**1 DEFINITION**

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables, Junction boxes, Distribution boxes and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such Specifications are available and applicable. Solar PV system shall consist of following equipment/components.

Solar PV modules consisting of required number of Crystalline PV cells. Grid interactive Power Conditioning Unit with Remote Monitoring System Mounting structures, Junction Boxes, Earthing and lightening protections, IR/UV protected PVC Cables, pipes and accessories

**1.1 SOLAR PHOTOVOLTAIC MODULES:**

1.1.1 The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-1 - requirements for construction & Part 2 - requirements for testing, for safety qualification or equivalent IS.

- a) For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701.
- b) Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- c) PV modules must be tested and approved by one of the IEC authorized test centers.
- d) The module frame shall be made of corrosion resistant materials, preferably having anodized aluminum.
- e) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power in his bid. SECI/owners shall allow only minor changes at the time of execution.

g) Other general requirement for the PV modules and subsystems shall be the Following:

I. The rated output power of any supplied module shall have positive tolerance in range of 5 watt.

II. The peak-power point voltage and the peak-power point current of any supplied module

And/or any module string (series connected modules) shall not vary by more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.

III. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry. Points or may be of sealed type and IP-65 rated.

IV. I-V curves at STC should be provided by bidder.

1.1.2 Plants installed in high dust geographies like Rajasthan and Gujarat must have the solar modules tested with relevant dust standards (Applicable standard would be IEC 60068-2-68).

1.1.3 Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each module. This should be inside the laminate only.

- a) Name of the manufacturer of the PV module
- b) Name of the manufacturer of Solar Cells.
- c) Month & year of the manufacture (separate for solar cells and modules)
- d) Country of origin (separately for solar cells and module)
- e) I-V curve for the module Wattage,  $I_m$ ,  $V_m$  and FF for the module
- f) Unique Serial No and Model No of the module
- g) Date and year of obtaining IEC PV module qualification certificate.
- h) Name of the test lab issuing IEC certificate.
- i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

1.1.4 Warranties:

a) Material Warranty:

i. Material Warranty is defined as: The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than five (05) years from the date of sale to the original customer ("Customer")

- ii. Defects and/or failures due to manufacturing
  - iii. Defects and/or failures due to quality of materials
  - iv. Non-conformity to specifications due to faulty manufacturing and/or inspection processes. If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option
- b) Performance Warranty:
- i. The predicted electrical degradation of power generated not exceeding 20 % of the minimum rated power over the 25-year period and not more than 10 % after ten years period of the full rated original output.

## 1.2 ARRAY STRUCTURE

- a) Hot dip galvanized (Mild Steel) MS mounting structures may be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum insolation. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.
- b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (like Delhi-wind speed of 150 km/hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to SECI. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed.
- c) The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.
- d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminum structures also can be used which can withstand the wind speed of respective wind zone. Protection towards rusting need to be provided either by coating or anodization.
- e) The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels
- f) Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.
- g) The minimum clearance of the structure from the roof level should be 300 mm, for RCC type roof.
- h) Ballast type structures can be used only for plants for capacity more than 40 kWp.

### **1.3 JUNCTION BOXES (JBs)**

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminum /cast aluminum alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single / double compression cable glands. Provision of earthings. It should be placed at 5 feet height or above for ease of accessibility.
- c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- d) Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.
- e) All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

### **1.4 DC DISTRIBUTION BOARD:**

- a) DC Distribution panel to receive the DC output from the array field.
- b) DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

### **1.5 AC DISTRIBUTION PANEL BOARD:**

- a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.
- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e) The panels shall be designed for minimum expected ambient temperature of 45 degree



Celsius, 80 percent humidity and dusty weather.

- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g) Should conform to Indian Electricity Act and rules (till last amendment).
- h) All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions

Variation in supply voltage	+/- 10 %
Variation in supply frequency	+/- 5 Hz

#### 1.6 PCU/ARRAY SIZE RATIO:

- a) The combined wattage of all inverters should not be less than rated capacity of power plant under STC.
- b) Maximum power point tracker shall be integrated in the PCU/inverter to maximize energy drawn from the array.

#### 1.7 PCU/ Inverter:

As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the “Power Conditioning Unit (PCU)”. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter should also be DG set interactive. If necessary. Inverter output should be compatible with the grid frequency. Typical technical features of the inverter shall be as follows:

Switching devices	IGBT/MOSFET
Control	Microprocessor /DSP
Nominal AC output voltage and frequency	415V, 3 Phase, 50 Hz (In case single phase inverters are offered, suitable arrangement for balancing the phases must be made.)
Output frequency	50 Hz
Grid Frequency Synchronization range	+/- 5 Hz
Ambient temperature considered	-20° C to 50° C
Humidity	95 % Non-condensing

Protection of Enclosure	IP-54(Minimum) for indoor.
	IP-65(Minimum) for outdoor.
Grid Frequency Tolerance range	+/- 5 Hz
Grid Voltage tolerance	-0.2 to 0.15
No-load losses	Less than 1% of rated power
Inverter efficiency(minimum)	>93% (In case of 10 kW or above with in-built galvanic isolation)
	>97% (In case of 10 kW or above without in-built galvanic isolation)
Inverter efficiency (minimum)	> 90% (In case of less than 10 kW)
THD	< 3%
PF	> 0.9

- a) Three phase PCU/ inverter shall be used with each power plant system (10kW and/or above) but in case of less than 10 kW single phase inverter can be used.
- b) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- c) The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.
- d) Built-in meter and data logger to monitor plant performance through external computer shall be provided.
- e) Anti-islanding (Protection against Islanding of grid): The PCU shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.
- f) Successful Bidder shall be responsible for limiting dc injection into the grid and load as per the CEA/state regulations.
- g) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
- h) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068-2 (1,2,14,30)/ Equivalent BIS Std.
- i) The MPPT units environmental testing should qualify IEC 60068-2 (1, 2, 14, 30)/ Equivalent BIS std. The junction boxes/ enclosures should be IP 65 (for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.
- j) The PCU/ inverters should be tested from the MNRE approved test centers/ NABL/ BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

## **2 INTEGRATION OF PV POWER WITH GRID:**

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid. Once the DG set comes into service, PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. 4 pole isolation of inverter output with respect to the grid/ DG power connection need to be provided.

## **3 DATA ACQUISITION SYSTEM / PLANT MONITORING**

- i. Data Acquisition System shall be provided for each of the solar PV plant above 10 kWp capacity.
- ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iii. Solar Irradiance: An integrating Pyranometer / Solar cell-based irradiation sensor (along with calibration certificate) provided, with the sensor mounted in the plane of the array. Readout integrated with data logging system.
- iv. Temperature: Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system
- v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
  - a. AC Voltage.
  - b. AC Output current.
  - c. Output Power
  - d. Power factor.
  - e. DC Input Voltage.
  - f. DC Input Current.
  - g. Time Active.
  - h. Time disabled.
  - i. Time Idle.
  - j. Power produced
  - k. Protective function limits (Viz-AC Over voltage, AC Under voltage, over frequency, under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be made available for energy auditing through the internal

microprocessor and should be read on the digital front panel.

- vii. PV array energy production: Digital Tri Vector Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated by the PV system provided. TVM Energy meter along with CT/PT should be of 0.5 accuracy class.
- viii. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.
- ix. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
- x. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.
- xi. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- xii. All instantaneous data shall be shown on the computer screen.
- xiii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.
- xiv. Provision for instantaneous Internet monitoring and download of historical data shall be also incorporated.
- xv. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.
- xvi. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.
- xvii. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.
- xviii. Remote Monitoring and data acquisition through Remote Monitoring System software at the owner / SECI location with latest software/hardware configuration and service connectivity for online / real time data monitoring / control complete to be supplied and operation and maintenance / control to be ensured by the bidder.
- xix. The bidders shall be obligated to push real-time plant monitoring data on a specified interval (say 15 minute) through open protocol at receiver location (cloud server) in XML/JSON format, preferably. Suitable provision in this regard will be intimated to the bidders.

#### **4 TRANSFORMER “IF REQUIRED” & METERING**

- a) Dry/oil type relevant kVA, 11kV/415V, 50 Hz Step up along with all protections, switchgears, Vacuum circuit breakers, cables etc. along with required civil work, as per applicable IS or IEC Standard.
- b) The bidirectional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.
- c) The bidder must take approval/NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to SECI before commissioning of SPV plant.
- d) Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM requirement.

#### **5 POWER CONSUMPTION**

- a) Regarding the generated power consumption, priority need to give for internal consumption first and thereafter any excess power can be exported to grid. Finalization of tariff is not under the purview of SECI or MNRE. Decisions of appropriate authority like DISCOM, state regulator may be followed.

#### **6 PROTECTIONS**

The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

##### **6.1 LIGHTNING PROTECTION**

- a) The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc.
- b) The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per NFC 17-102:2011 standard. The protection against induced high-voltages shall be provided by the use of SPD type II and suitable earthing such that induced transients find an alternate route to earth.

##### **6.2 SURGE PROTECTION**

- a) Internal surge protection shall consist of three SPD type II, surge-arrestors connected from +ve and –ve terminals to earth (via Y arrangement).

##### **6.3 EARTHING PROTECTION**

- a) Each array structure of the PV yard should be grounded/ earthed properly as per

IS:3043-2018.

- b) In addition, the lighting arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of Department/SECI as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly.
- c) Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

#### 6.4 GRID ISLANDING:

- a) In the event of a power failure on the electric grid, it is required that any independent power-producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as “Islands.” Powered Islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.
- b) A manual disconnect 4-pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

### 7 CABLES

Cables of appropriate size to be used in the system shall have the following characteristics:

- i. Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- ii. Temp. Range:  $-10^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$
- iii. Voltage rating 660/1000V
- iv. Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- v. Flexible
- vi. Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%)
- vii. For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used.
- viii. For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper/Aluminum cables shall be used; Outdoor AC cables

shall have a UV-stabilized outer sheath.

- ix. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in color.
- x. The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
- xi. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers
- xii. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm<sup>2</sup> copper; the minimum AC cable size shall be 4.0 mm<sup>2</sup> copper. In three phase systems, the size of the neutral wire size shall be equal or half to the size of the phase wires.
- xiii. Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter.
- xiv. Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in color.
- xv. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
- xvi. The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant shall be provided by the bidder. Any change in cabling sizes if desired by the bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation.
- xvii. Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armored cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below:

BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and

including 1100 V, UV resistant for outdoor installation IS /IEC 69947.

xviii. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.

xix. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

## 8 CONNECTIVITY

The maximum capacity for interconnection with the grid at a specific voltage level shall be as specified in the Distribution Code/Supply Code of the State and amended from time to time. Following criteria have been suggested for selection of voltage level in the distribution system for ready reference of the solar suppliers.

Plant Capacity	Connecting Voltage
Up to 10 kW	240V – single phase or 415V – three phase at the option of the consumer
Above 10 kW and up to 100 kW	415V – three phase
Above 100 kW	At HT/EH level (11kV/33kV/66kV) as per DISCOM rules

- a) The maximum permissible capacity for rooftop for a single net metering point shall be as per existing regulatory policies.
- b) Utilities may have voltage levels other than above, DISCOMS may be consulted before finalization of the voltage level and specification be made accordingly.
- c) For large PV system (Above 100 kW) for commercial installation having large load, the solar power can be generated at low voltage levels and stepped up to 11 kV level through the step-up transformer. The transformers and associated switchgear would require to be provided by the SPV bidders.

## 9 TOOLS & TACKLES AND SPARES

- a) After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the bidder for maintenance purpose. List of tools and tackles to be supplied by the bidder for approval of specifications and make from SECI/ owner.
- b) A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc. along with spare set of PV modules be indicated, which shall be supplied along with the equipment. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished.



## **10 DANGER BOARDS AND SIGNAGES**

- a) Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery –cum- control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with SECI/ owner.

## **11 FIRE EXTINGUISHERS:**

The firefighting system for the proposed power plant for fire protection shall be consisting of:

- a) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- b) Sand buckets in the control room
- c) The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

## **12 DRAWINGS & MANUALS:**

- a) Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment.
- b) Approved ISI and reputed makes for equipment be used.
- c) For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to SECI/owners before progressing with the installation work

## **13 PLANNING AND DESIGNING:**

- a) The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labour. The bidder should submit the array layout drawings along with Shadow Analysis Report to SECI/Owner for approval.
- b) SECI reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements.
- c) The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submit three sets and soft copy in CD of final drawing for formal approval to proceed with construction work.

## **14 DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT**

- a) The Contractor shall furnish the following drawings Award/Intent and obtain approval
- b) General arrangement and dimensioned layout

- c) Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- d) Structural drawing along with foundation details for the structure.
- e) Itemized bill of material for complete SV plant covering all the components and associated accessories.
- f) Layout of solar Power Array
- g) Shadow analysis of the roof

## **15 SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUAL ENERGY REQUIREMENT**

The Solar PV system on the rooftop of the selected buildings will be installed for meeting upto 90% of the annual energy requirements depending upon the area of rooftop available and the remaining energy requirement of the office buildings will be met by drawing power from grid at commercial tariff of DISCOMs.

## **16 SAFETY MEASURES:**

The SPD shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

## **17 DISPLAY BOARD**

The SPD has to display a board at the project site (above 25 kWp) mentioning the following:

- a. Plant Name, Capacity, Location, Date of commissioning, estimated Power generation.
- b. Financial Assistance details from SECI/MNRE/Any other financial institution apart from loan. This information shall not be limited to project site but also be displayed at site offices/head quarter offices of the successful bidder
- c. The size and type of board and display shall be approved by Engineer-in-charge before site inspection.

Please refer **Annexure-F** for IEC standards to be mandatorily adhered.

**INTIMATION TO DISCOM FOR IMPLEMENTATION OF GRID CONNECTED  
ROOFTOP SOLAR PV PLANT UNDER\_\_\_\_\_**

To,

Date:

\_\_\_\_\_  
(Designated Officer, DISCOM)

1.	Name of SPD/Implementing Agency	
2	Name of the Consumer*	
Site Details*		
3	Address of the Rooftop Project Site:*	H No:
		Street Name:
		Village Name:
		District Name:
		State:
	Pin Code:	
4	Phone / Mobile no. *	
5	Email Id:	
6	Electricity Consumer No. *	
7	Category ) *	<input type="radio"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="radio"/> Educational <input type="checkbox"/> Government <input type="checkbox"/> Others, Specify
	(Please	
8	Installed Plant Capacity (kWp)*	
9	Connected load (kVA)*	
10	Voltage level at interconnection*	<input type="radio"/> 415 V <input type="radio"/> 11 kV <input type="radio"/> above 11 kV
11	Nearest Transformer Details	Location:                      Capacity:
12	Details of Inverter with Anti-Islanding Protection* Phase (Φ): (Please ) Galvanic Isolation (Please )	Make:                      Capacity: <input type="radio"/> Single phase <input type="checkbox"/> 3-Phase <input type="radio"/> Inside Inverter <input type="checkbox"/> Outside Inverter
14	Both AC and DC components of the SPV power plants Earthed*: <input type="checkbox"/>	
15	CEIG Inspection required*	<input type="radio"/> Yes <input type="radio"/> No
16	If, Yes, Inspection date * (Attach copy of CEIG Certificate)	

1 8	Bank Account details	Account No. Branch Bank
1 9	Date of Grid Synchronization*	
20.	Net metering and grid connectivity (Attach acknowledgment from DISCOM, if received)	Applied on:
		Fees Deposited On:

\*to be provided mandatorily

It is certified that the information furnished above is true to the best of my knowledge.

Consumer / Authorized Signatory of

Implementing Agency on behalf of consumer

Copy To:

Engineer In-charge, Solar Energy Corporation of India Limited, New Delhi-23

**Appendix-G-II**

Project Inspection Report under RfS No: Dated:			
<b>Date of Inspection:</b>			
A	Name of the Solar Power Developer:		
B	Name of the Building Department/ Organization:		
C	Name of the Ministry:		
D	Address of SPV power plant installed:		
E	Meter Consumer Number: ..... (Electricity bill copy to be attached)		
S. No.	Component	Details	Page No.
1	Installed Project capacity in (kWp)		
2	Whether the system is installed in shadow free area or not? If not mention the details.	YES /NO	
3	PV modules	1- Attach Invoice copy of modules 2- Attach Delivery challan of modules	
4	Type, Make and year of manufacturing of Modules		
5	Flash Test Report for all modules (rated output power of any supplied module shall have positive tolerance in range of 5 watt)	YES/NO (Documents attached)	
6	PV module qualification test standard (IEC 61215/IS14286 / IEC 61730 / IEC 61701/IS 61701 (for highly corrosive atmosphere)	Certificate Number: Certificate issued by: Certificate issued on: Certificate valid up to:	
7	Wattage of each module and Total No. of modules		
8	Integrated bypass diodes	YES/NO	
9	Representative I-V curve of modules @STC	Documents attached	
(Signature – SPD's Representative)		(Signature- IIT Kharagpur's representative)	(Signature - SECI's representative /Inspector)

10	Module RF identification tag (Inside /outside lamination)	YES/NO	
11	Whether the modules contain information about company name, serial no and year manufacturing etc.	YES/NO (RFID information attached)	
12	Warranty Certificates (Material Warranty/ Performance Warranty) signed and stamped by bidders	Signed and Stamped copy by bidder (Documents attached)	
13	Protection class of Junction box of modules (IP- 65)	YES/NO	
<b>ARRAY STRUCTURE</b>			
14	Material of structure	Hot dip galvanized MS / Steel (IS 2062: 1992 ) / Aluminum (Check Material test report as per IS)	
15	Galvanization of mounting structure as per IS 4759	YES/NO (check test report as per IS)	
16	Galvanization thickness of mounting structure	1. _____ mm 2. Galvanization test report as per IS – YES/NO	
17	Wind load calculation sheet for wind zone of the location	Designed to sustain wind speed up to _____ kmph	
18	MMS Design certified by a recognized Lab/ Institution	1. YES/NO 2. Attach Document	
19	Material of fasteners (Stainless steel)	YES/NO	
20	Load bearing capacity of the roof	OK / Not OK (visual observation)	
21	Minimum clearance of the structure from the roof	.....mm	
(Signature – Bidder's Representative)		(Signature- IIT Kharagpur's representative)	(Signature - SECI's Inspector)

PCU/ Inverter			
22	Guaranteed Technical Particulars for PCU/ Inverter as per RfS	YES/NO	
23	Make, rating of each inverter & No. of Inverters (AC capacity of inverter)		
24	Combined Rated wattage of all inverters in Plant (Total AC rating)		
25	MPPT is integrated in the PCU/inverter	YES/NO	
26	Year(s) of manufacturing of inverters		
27	Switching devices, inverter data sheet as per RfS	YES/NO	
28	Protection of Enclosure (IP) and Location of Inverters (outdoor/indoor)		
29	Phase of inverter	3 phase / 1 phase	
30	Whether solar PV plant is synchronized with grid	YES/NO	
31	Inverter standard codes IEC 61683/IS 61683, IEC 60068- 2(1, 2, 14, 30) /Equivalent BIS Std.	Certificate Number: Certificate issued by: Certificate issued on: Certificate valid up to:	
32	Anti- Islanding (IEEE 1547/UL1741/IEC 62116)	Certificate Number: Certificate issued by: Certificate issued on: Certificate valid up to:	
33	Serial Numbers of installed inverters		
DCDB /Junction Boxes (if required)			
34	GTP of JB as per RfS (duly signed by bidder and manufacturer)	YES/NO	
35	IP protection level	IP - (Check Test report as per IS)	
36	Bus bar material of DCDB	Copper, YES/NO,	
37	MCB/MCCB installed	YES/NO, Rating, Data sheet attached	
38	Surge arrester, SPDS	YES/NO, Rating, Data sheet attached	
(Signature – Bidder's Representative)		(Signature- IIT Kharagpur's representative)	(Signature - SECI's Inspector)

39	Material of sheet and thickness	GRP/FRP/Power coated aluminum /Cast Aluminum alloy	
40	Test report of DCDB	Attached (As per IS)	
41	Height of junction box	5 feet or more (YES/NO)	
42	Glands type	Single / Double compression gland	
43	JB Earthing provision	YES/NO	
<b>AC DISTRIBUTION PANEL BOARD/ LT Panel</b>			
44	All switches and the circuit breakers, connectors standards IEC 60947, part I, II and III/ IS60947 part I, II and III)	YES/NO , (check Rating , Data sheet)	
45	IP protection (Minimum 54 or better)	YES/NO	
46	Material of LT panel and its details		
47	Change over switch	YES/NO,	
48	Proper Earthing of ACDB (As per IS 3043-1987)	YES/NO	
49	Surge protections	YES/NO (check Rating, Data sheet)	
50	Height of LT panel form ground	.....Meters	
51	Test report of ACDB as per IE Rules	YES/NO	
<b>Lightening arrester</b>			
52	Proper Lighting arrester installed (As per NFC 17-102:2011/ IEC 62561)	YES /NO	
<b>Cables</b>			
53	Meets IEC 60227/IS 694, IEC 60502/IS1554 standards (or other as applicable)	YES/NO, Certificate Number: Certificate issued by: Certificate issued on: Certificate valid up to:	
54	Cable dimension and Material 1- Modules to inverters, Inverter to LT panels,	1-.....sq. mm Material 2-.....sq. mm, Material	
55	Voltage drop in DC cable (Modules to inverters)	_____ % __,	
56	Voltage drop in AC cable (inverter to LT panel or T/F)	_____ % ,	



(Signature – Bidder's Representative)		(Signature- IIT Kharagpur's representative)	(Signature - SECI's Inspector)
57	Cable Routing/ Marking (GI cable tray and suitably tagged and marked with proper manner by good quality ferrule)	YES/NO	
<b>Solar Plant Monitoring</b>			
58	Solar Irradiance sensor mounted on Plane of the array.	YES/NO	
59	Irradiance Sensor calibration certificate	Certificate Number: Certificate issued by: Certificate issued on: Certificate valid up to:	
60	Temperature sensor	YES/NO,	
61	Online Monitoring mechanism for the installed system	YES/NO	
<b>Transformer (If required)</b>			
62	Transformer rating, Type etc.		
<b>Miscellaneous</b>			
63	Earthing and protections (Array Structure, PCU, ACDB and DCDB) IS:3043-1987	OK/Not OK	
64	Earthing Resistance less than 5 ohms	YES/NO, values.....ohms	
65	NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant	YES/NO, attached (not mandatory)	
66	Bidirectional meters installed (for net metering)	YES/NO, Rating, Data sheet	
67	Accuracy and burden of Meters		
68	Danger boards and signages	YES/NO	
69	Fire extinguishers & Sand Buckets	YES/NO	
70	Tools & Tackles and <b>spares</b>	OK/Not OK	
71	O&M manual available at site	YES/NO	

72	Display Board	YES/NO	
(Signature – Bidder's Representative)		(Signature- IIT Kharagpur's representative)	(Signature - SECI's Inspector)
<b>Drawings at Site</b>			
73	Layout of solar Power Array As built drawing ( <b>A3 Sheet</b> )	Check and Attach	
74	Shadow analysis of the roof	Check and Attach	
75	Single line diagram of plant (SLD) <b>A 3 sheet</b>	Check and Attach	
76	Structural drawing along with foundation details for the structure ( <b>A3 Sheet</b> )	Check and Attach	
77	Itemized bill of material for complete SPV plant covering all the components and associated accessories. The country of manufacturing needs to be mentioned for all major components like modules, inverters, cables, mounting structure, switchgear, SCADA system etc.	Check and Attach	
78	Soft copy in CD of final drawing	Check and Attach	
79	Photo Graphs of sites	Check and Attach	
80	Any specific problem(s)		
81	Recommendations		
(Signature – Bidder's Representative)		(Signature- IIT Kharagpur's representative)	(Signature - SECI's Inspector)

### **Format for Performance Ratio (PR)**

“Performance Ratio” (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.

$$PR = \frac{\text{Measured Output in kW}}{\text{Installed capacity in kW} \times \text{Measured radiation intensity in kW/m}^2} \times 100$$

Parameters	Input value	Remarks, if any
Date and Time for PR measurement		
A) Installed Plant Capacity in kW		
B) Measured output in kW		
C) Measured radiation intensity in W/m <sup>2</sup>		
Performance Ratio (%) $(\frac{B \times 1000}{A \times C} \times 100)$		
Date of Installation/ Completion of the Rooftop (to be certified by IIT Kharagpur's representative)		

#### **Declaration:**

It is to certify that all the information given above is true and correct to best of our knowledge. The plant is found to be installed as per the technical specifications mentioned in SECI's RfS No.:

**Signature of Inspecting Officer, Date & Name**

**Signature of Representative of Bidder, Date & Seal**

**Signature of IIT Kharagpur's representative,**

**Date & Seal – Conforming installation of rooftop solar plant at their building and its satisfactory operation**