

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:

Name	Percentage
Member 1	---
Member 2	---
Member n	---
Total	100%

We acknowledge that after the execution of PPA, the controlling shareholding (having not less than 51% of the voting rights and paid up share capital) in the Project Company developing the Project shall be maintained for a period of 01 (One) Year after commencement of supply of power.

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 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 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. #:

Fax #:

E-mail address#

To**Solar Energy Corporation of India Limited****D - 3, 1st Floor, Wing - A, Prius Platinum Building****District Centre, Saket, New Delhi - 110 017**

Sub: Response to RfS No. _____ dated _____ for Selection of Solar Power Developers for Setting up of 1785 MW Grid Connected Solar PV Power Projects in Rajasthan (Tranche-IV)

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 2019-20 or as on the date at least 7 days prior to the bid submission deadline (Strike out wherever not applicable).

This Net Worth has been calculated in accordance with instructions provided in Clause No. C1, Section-IV, Qualifying Requirements (QR) of the RfS as amended.

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:

Name of Bidding Company	Name of Affiliate(s) whose net worth is to be considered	Relationship with Bidding Company*	Net Worth (in Rs. Crore)
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]

Net Worth Requirement to be met by Member in Proportion to the Equity Commitment: INR ----
----- Crore (Equity Commitment (%) * Rs. [] Crore)

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

Name of Consortium Member Company	Name of Affiliate(s) whose net worth is to be considered	Relationship with Bidding Company* (If Any)	Net Worth (in Rs. Crore)	Equity Commitment (in %age) in Bidding Consortium	Committed Net Worth (in Rs. Crore)
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*

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 Annual Turnover Criteria, by demonstrating an Annual Turnover of INR _____ (_____ in words) as on **the end of Financial Year 2019-20 or as on the day at least 7 days prior to the bid submission deadline** (choose one). *(Strike out if not applicable)*

Exhibit (i): Applicable in case of Bidding Company

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

Name of Bidding Company	Name of Affiliate(s) whose Annual Turnover is to be considered	Relationship with Bidding Company*	Annual Turnover (In Rs. Crore)
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]

Annual Turnover Requirement to be met by Member in Proportion to the Equity Commitment:

INR -----Crore (Equity Commitment (%) * Rs. [] Crore)

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

Name of Consortium Member Company	Name of Affiliate(s) whose Annual Turnover is to be considered	Relationship with Bidding Company* (If Any)	Annual Turnover (in Rs. Crore)	Equity Commitment (in %age) in Bidding Consortium	Proportionate Annual Turnover (in Rs. Crore)
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*

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 Profit Before Depreciation Interest and Taxes (PBDIT) criteria, by demonstrating a PBDIT of INR _____ (in words) as on **the end of Financial Year 2019-20 or as on the day at least 7 days prior to the bid submission deadline.** (Strike out if not applicable)

Exhibit (i): Applicable in case of Bidding Company

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

Name of Bidding Company	Name of Affiliate(s) whose PBDIT is to be considered	Relationship with Bidding Company*	PBDIT (in Rs. Crore)
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]*

PBDIT Requirement to be met by Member in Proportion to the Equity Commitment: INR -----
 ----Crore (Equity Commitment (%) * Rs. [] Crore)

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

Name of Consortium Member Company	Name of Affiliate(s) whose PBDIT is to be considered	Relationship with Bidding Company* (If Any)	PDBIT (in Rs. Crore)	Equity Commitment (in %) in Bidding Consortium	Proportionate PBDIT (in Rs. Crore)
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.

(iii) In case of the Bidder choosing to meet the Liquidity criteria through an In-principle sanction letter, such document shall be separately submitted by the bidder as part of the bidder's Response to RfS.

FORMAT 7.7

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 M/s _____ (insert name of the Bidder), or any of its Affiliates is not a willful defaulter to any lender, and that there is no major litigation pending or threatened against M/s _____ (insert name of 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.

(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

D - 3, 1st Floor, Wing - A, Prius Platinum Building

District Centre, Saket, New Delhi - 110 017

Sub: Response to RfS No. _____ dated _____ for Selection of Solar Power Developers for Setting up of 1785 MW Grid Connected Solar PV Power Projects in Rajasthan (Tranche-IV)

Dear Sir/ Madam,

We hereby declare and confirm that only we are participating in the RfS Selection process for the RfS No. _____ 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 A.4, Section IV of the RfS, and are complying with the requirements as per the referred OM dated 23.07.2020 except Sl. 11 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.

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/Member of Consortium)

Tel.#: _____

Fax#: _____

E-mail address# _____

To

Solar Energy Corporation of India Limited

D - 3, 1st Floor, Wing - A, Prius Platinum Building

District Centre, Saket, New Delhi - 110 017

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 37.4 of the RfS, and are complying with the requirements as per the referred OM dated 23.07.2020, 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.

Dated the _____ day of _____, 20....

Thanking you,

We remain,

Yours faithfully,

Name, Designation, Seal and Signature of Authorized Signatory

DECLARATION
RESTRICTION ON PROCUREMENT FROM CERTAIN COUNTRIES:

MoF OM No 6/18/2019-PPD dated 23.07.2020

(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.#: Fax#:
E-mail address#

To
Solar Energy Corporation of India Limited
D - 3, 1st Floor, Wing - A, Prius Platinum Building
District Centre, Saket, New Delhi - 110 017

Sub: Response to the Tender No datedfor the tender
for

Dear Sir/ Madam,
This is with reference to attached order No. OM no. 6/18/2019-PPD dated 23rd July 2020 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,

Encl: OM dated 23.07.2020, as referred above
Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/
Board Resolution/ Declaration.

FORMAT FOR TECHNICAL CRITERIA

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

(To be Submitted Separately for each Project)

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

D - 3, 1st Floor, Wing - A, Prius Platinum Building

District Centre, Saket, New Delhi - 110 017

Sub: Response to RfS No. _____ dated _____ for Selection of Solar Power Developers for Setting up of 1785 MW Grid Connected Solar PV Power Projects in Rajasthan (Tranche-IV)

Dear Sir/ Madam,

We hereby undertake to certify in line with **Clause No. 15, Section-III, ITB** under the title "Financial Closure" that the following details shall be furnished within **12 (twelve) months** of Effective Date of the PPA.

1.0 Evidence of achieving complete-tie-up of the Project Cost through internal accruals or through a Financing Agency,

Failure or delay on our part in achieving the above conditions shall constitute sufficient grounds for actions as per the provisions of the RfS.

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 BY THE BIDDER FOR THE PROPOSED
TECHNOLOGY TIE-UP**

(To be Submitted Separately for each Project)

1	Name of Bidding Company/ Lead Member of Bidding Consortium		
2	Project Location		
3	Capacity Proposed MW	
4	Number of Projects		
5	Technology Proposed to be adopted for the Project		
6	Estimated Annual Generation of Electrical Energy		kWh
7	Brief about the Proposed Technology		
	Crystalline Silicon Solar Cells and Modules		
	Concentrator PV Modules		
	Thin Film Modules		
	Any Other Technology		

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 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

D - 3, 1st Floor, Wing - A, Prius Platinum Building

District Centre, Saket, New Delhi - 110 017

Sub: Response to RfS No. _____ dated _____ for Selection of Solar Power Developers for Setting up of 1785 MW Grid Connected Solar PV Power Projects in Rajasthan (Tranche-IV)

Dear Sir/ Madam,

I/ We, _____ (*Insert Name of the Bidder*) enclose herewith the Financial Proposal for selection of my/ our firm for _____ number of Project(s) for a cumulative capacity of _____ MW in Rajasthan as Bidder for the above.

I/ We agree that this offer shall remain valid for a period of 180 (One Hundred and Eighty) days from the due date of submission of the response to RfS 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 all the projects applied for. If the bidder quotes two tariffs or combination thereof for the projects, then the bid shall be considered as nonresponsive.*
2. *If the bidder submits the financial bid in the Electronic Form at ISN-ETS portal not in line with the instructions mentioned therein, then the bid shall be considered as nonresponsive.*
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 places of decimals only.*

PRELIMINARY ESTIMATE OF COST OF SOLAR PV PROJECT**(To be submitted separately for each Project)**

Project Capacity:MW

Location:

Sr. No.	Particulars	Estimated Cost (in Lakh INR) (in figures)	Estimated Cost (in Lakh INR) (in words)
1.	PV Modules		
2.	Land Cost		
3.	Civil and General Works		
4.	Mounting Structures		
5.	Power Conditioning Unit		
6.	Evacuation Cost up to Inter-connecting point (Cables and Transformers)		
7.	Preliminary and Pre-Operative Expenses including IDC and Contingency		
8.	Others (Please specify)		
9.	Total Project Cost		

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.

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

1.1 The SPV modules used in the grid solar power Projects must qualify to the latest edition of any of the following IEC PV module qualification test or equivalent BIS standards.

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

1.2 In addition, SPV modules must qualify to IEC 61730 for safety qualification testing at 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/m², AM 1.5, 25°C)
- 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 Procurer and MNRE or any other designated agency on line and/or through a report on regular basis every month for the entire duration of PPA. In this regard they shall mandatorily also grant access to Procurer and MNRE or any other designated agency to the remote monitoring portal of the power plants on a 24x7 basis.

8. 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.

9. SAFE DISPOSAL OF SOLAR PV MODULES

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

10. CAPACITY OF SOLAR PV PROJECTS

- i) 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:

Sr. 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

- ii) Higher DC capacity arrays so as to achieve AC capacity limit as mentioned above for scheduling at the delivery point in compliance to Article 4.4 "Right to Contracted Capacity & Energy" of the PPA is allowed.
- iii) For commissioning of the Project, capacity of DC arrays installed shall be considered in multiple of 10 MW per unit. In case of part commissioning of 20 MW Project, each unit shall be required to have minimum 10 MW DC Arrays Capacity be installed.
- iv) Provisions of Article 4.6.1 of the PPA with SPD shall apply for the capacity not commissioned by the scheduled commissioning date.
- v) If generation at any time exceeds the maximum permissible AC capacity at delivery point, the excess generation during that period shall not be considered under PPA.

COMMISSIONING PROCEDURE

(This is for Reference only; The Commissioning Procedure will be guided by as per PPA)

□ **Capacity of Solar PV Projects:**

- i) The Project configuration shall be allowed as per the following matrix:

Sr. 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

*In case the rated inverter capacity is mentioned in kVA, the IEC test certificate declaring the power factor of the Inverter/PCU at rated power has to be submitted and the power factor shall be multiplied by the kVA rating to calculate the rated capacity of the inverter in kW.

- ii) The SPD shall be required to demonstrate compliances with the “*Technical Requirements for Grid Connected Solar PV Power Plants*” as mentioned in the RfS and Guidelines.
- iii) Higher DC capacity arrays can also be allowed, subject to the condition that the AC capacity limit as mentioned in (i) above for scheduling at the Delivery Point as per Article 4.4 “Right to Contracted Capacity & Energy” of the PPA is complied with.
- iv) For commissioning of the Project, cumulative capacity of DC arrays and cumulative capacity of the inverters & cumulative capacity of interconnected Power Transformer installed shall be considered. In case of part commissioning of the Project, it shall be required to have the DC Arrays Capacity, capacity of inverters & interconnected Power Transformer capacity be installed not less than the proposed part commissioning capacity.
- v) If generation at any time exceeds the maximum permissible AC capacity at delivery point, the excess generation during that period may not be considered under PPA.

Commissioning Procedure

The Solar PV Project will be declared as commissioned when all equipment as per rated project capacity has been installed and energy from the Project has flown into the grid, which will be verified by a committee/agency identified by SECI/MNRE to witness the Commissioning of the Project.

Following is the chronology of the procedure to be followed for commissioning of the Project.

- i) SPDs shall give to the concerned RLDC/SLDC, State Nodal Agency (SNA) and SECI at least thirty (30) days advance written notice, of the date on which it intends to synchronize the Power Project to the Grid System. The SPD shall be solely responsible for any delay or non-receipt of the notice by the concerned agencies, which may in turn affect the Commissioning Schedule of the Project. Early Commissioning of a Solar Project prior to the SCD is permitted on acceptance of power by SECI. In order to facilitate this, SPDs shall inform the concerned RLDC/SLDC and SECI well in advance, which is not less than 90 days prior to the date on which it intends to synchronize the Power Project to the Grid System.
- ii) Not more than 7 days prior to the proposed commissioning date, the SPD shall give the final written notice to SECI, SNA and STU requiring the commissioning committee/agency to visit the site to witness commissioning of the project. Following documents are required to be submitted by the SPD, physically in the office of SECI along with the above notice, duly stamped and signed by the Authorized Signatory (scanned copies may also be allowed):
 - a. Covering Letter
 - b. Board resolution for authorized signatory for signing the documents related to commissioning of the Project and witnessing the commissioning.
 - c. Achievement of Land Arrangements requirement as per clause 15 (vi)
 - d. Installation report duly signed by the authorized signatory as per Appendix-A1-2. The SPD is advised to take due care in furnishing such Installation Report. Discrepancy (if any) and observed by SECI, may be construed as misrepresentation of information by the SPD and SECI may take appropriate action as per this Agreement.
 - e. Plant Layout, Plant (AC & DC) SLD, along with Inverter-wise module details.
 - f. CEI/CEIG (as applicable) report containing approval for all the components, including modules, inverters, transformers and protection system, along with all annexures/attachments. It would be the responsibility of the SPD to obtain the certificate.
 - g. Connectivity and Long Term Access, along with Transmission Agreement.
 - h. Metering Scheme Approval provided by CTU/POSOCO
 - i. Relevant documents from SLDC/RLDC/SPIA/SPD acknowledging successful data communication between plant end and SLDC/RLDC.
 - j. RLDC Registration certificate and Charging code/Permission for charging the generating station issued by respective RLDC/SLDC etc.
 - k. Joint Meter Reading (JMR) shall be taken at Delivery Point and Pooling Substation (if applicable)/plant premise at the time of connectivity of the Project with Grid. This shall

- include information of respective meters installed at delivery/ interconnection point and pooling substation/plant premises.
- l. Synchronization Certificate issued by STU for ascertaining injection of power into grid. Self-declaration of synchronization is required along with copy of communication received from CTU/RLDC/SPIA for charging of each element i.e. 220 kV and above Bay at CTU, EHV Line, PSS and 33kV Bay and Inverters.
 - m. In line with CERC Order No. 1/14/2015-Reg.Aff.(FSDS-Proced.)/CERC Dated 03.03.2017, SPD shall ensure data telemetry at the inverter level to the concerned RLDC and shall ensure the correctness of the real-time data and undertake the corrective actions, if required.
Line of confirmation received from RLDC/CTU/SPIA with regards to above is required Prior to visit for witnessing the commissioning activities.
 - n. Reading of all the inverters (instantaneous and total generation) along with its serial number of a particular date.
- iii) After the submission/ upload of the documents by SPD, SECI shall verify the documents and intimate/reply with remarks. In case any additional supporting/revised documents are asked by SECI, the same have to be submitted by the SPD.
 - iv) Based on the submission of the above documents by the SPD, SECI shall intimate to the SPD about its readiness to visit the project site to witness the commissioning and shall notify the Commissioning Committee/Agency which shall visit the Project site to witness the commissioning of the Project. In case of a multi-agency Committee, the SPD shall ensure the presence of all the members of the Committee constituted to witness the commissioning, on the said date.
 - v) The Commissioning Committee/Agency shall visit the Project site to verify the technical compliance on site as per the information submitted by the SPD and to witness the commissioning. In case the committee finds discrepancy/deviation from the information submitted by the SPD during on site verification, the same shall be recorded in the minutes of meeting of the Committee/Agency. SECI shall decide the next date of visit of the Committee/Agency upon rectification of the discrepancies by the SPD.
 - vi) On the date of site-visit, the SPD shall be required to demonstrate that equipment of rated capacity as per table given at S.No. (i) has been installed, all the inverters of rated capacity are operating and energy from the project has flown into the grid.
 - vii) Joint Meter Reading (JMR) shall be taken at Delivery Point and Pooling Substation (if applicable)/plant premise on the date of site visit by the commissioning committee. This shall include information of respective meters installed at delivery/ interconnection point and pooling substation/plant premises.
 - viii) In case the Project meets the requirements as per the provisions of the RfS as verified by the Commissioning Committee/Agency witnessing the commissioning, the Project shall be declared as having been commissioned as on the date of synchronization with the grid, as indicated in the Synchronization Certificate. The date of Commissioning of the Project may be indicated in the Minutes of Meeting of the Committee/ recommendation of the Agency visiting the Project._ Any other observation contrary to the above, shall be clearly indicated

in the Minutes/recommendations and further decision on commissioning of the Project shall be taken by SECI in this regard.

- ix) Subsequent to the visit of the Commissioning Committee/Agency to the Project site, the SPD shall submit the following documents in hard copy/scanned form, in order to fulfil the requirements for issuance of Commissioning Certificate:
- a. Minutes of Meeting of the Commissioning Committee/recommendations of the Agency which has witnessed the commissioning of the Project.
 - b. Invoices against purchase of the solar modules, Inverters/PCUs and DC cables along with the summary sheet containing the list of all the invoices, including details and number of items.
 - c. All supporting documents towards meeting the technical compliance along with datasheet/ warranty certificates/ contract agreement etc. as mentioned in Annexure-A of the RfS).
 - d. Snap shots of the plant, including but not limited to, solar PV modules, all central inverters (showing instantaneous and total generation of a particular date), switchyards\switchgears, Power Transformers, metering (as per applicable regulations) at delivery point etc. along with the Installation Report.
 - e. SPD shall have to submit/ upload the as-built drawing after the commissioning.
- x) In case of any deviations recorded by the Commissioning Committee/Agency which had prevented the declaration of commissioning of the Project as on the date of synchronization of the Project, the SPD shall be required to submit to SECI, the necessary documents towards rectification of the deviations observed. Upon successful verification of the required documents, the fresh date of visit of the Commissioning Committee/Agency to the Project, shall be notified by SECI. If the Commissioning Committee/Agency visiting the Project finds the deviations earlier noted having been suitably rectified by the SPD, the date of Commissioning of the Project in this case, shall be the actual date of visit of the Commissioning Committee/Agency, else, the entire process shall be repeated until the observed deviations are rectified by the SPD to the satisfaction of the Commissioning Committee/Agency visiting the Project.
- xi) Subsequent to commissioning, the SPD shall provide the SCADA login details to SECI for online real time data monitoring of the Project. The SPD may be required to push the required plant related data to SECI designated server in xml/json formats.

INSTALLATION REPORT

(To be provided by SPD and to be submitted at most 7 days prior to proposed commissioning date, which shall be verified by Commissioning Committee)

Sr. No.	Capacity of the Project (MW)	
	Capacity already commissioned (MW)	
	Capacity proposed to be commissioned (MW)	
I.	Technology used (Mono/Multi Crystalline / thin film / Others; please specify along with capacity of each type)	
II.	Type of Tilt (Fixed Tilt/Seasonal Tilt/Tracking)	
III.	Rating of each module (Wp)	
IV.	Number of modules installed of each type (along with Serial Nos. of all the modules installed)	
V.	Make of Module(s) installed of each type (including name of the Supplier and country of origin)	
VI.	Number of PCUs / Inverters installed (along with Serial Nos. of all the PCUs/Inverters installed)	
VII.	Make of the PCUs / Inverters (including name of supplier and country of origin)	
IX.	Rating of PCUs / Inverters	
X.	Date of installation of full capacity (as per capacity proposed to be commissioned)	
X.	PV arrays	
	PCUs / Inverters	
	Transformers	
	Capacity of the Project (MW)	

**Sample Part Commissioning / Full Commissioning Certificate of
Solar PV Power Project**

(To be issued by the State Nodal Agency)

This is to certify that <M/s> having its registered office at ----- has successfully commissioned Capacity < MW > out of total <MW> installed Capacity on (Date) of their Solar PV Power Generation Project at Village -----, Tehsil/Taluka ----- & Dist. -----

The Commissioning Certificate has been issued on the basis of the following documents enclosed:

- (i) Installation Report including Snap shots of the Project from various angles
- (ii) Electrical Inspector Report
- (iii) Synchronization Certificate
- (iv) Minutes of Meeting of the Commissioning Committee / recommendation of the Agency visiting the Project

SPECIAL INSTRUCTIONS TO BIDDERS FOR e-TENDERING AND REVERSE AUCTION

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
Auction

The sealed bid system would be followed by an 'e-Reverse Auction'

Broad Outline of Activities from Bidder's Perspective:

1. Procure a Class III Digital Signing Certificate (DSC).
2. Register on Electronic Tender System® (ETS)
3. Create Marketing Authorities (MAs), Users and assign roles on ETS. It is mandatory to create atleast 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
10. Participate in e-Reverse Auction if invited

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.