

# **SOLAR ENERGY CORPORATION OF INDIA**

(A GOVERNMENT OF INDIA ENTERPRISE)

Invites Bids

for

Design, Manufacturing, Supply, Erection, Installation, Testing & Commissioning on turnkey basis including 20 years Operation & Maintenance from the date of Commissioning of Mini Grid Solar Photovoltaic Power Plants for aggregate capacity of 101kW in three villages under Ambala Circle in Haryana State



BID No: SECI/Cont./Ind./68/2014

Dated: 23.06.2014

Telephone No & Fax No: +91-11- 71989200

SECI website: [www.seci.gov.in](http://www.seci.gov.in)

Email: [contracts@seci.gov.in](mailto:contracts@seci.gov.in);

**June-2014**



## **SOLAR ENERGY CORPORATION OF INDIA**

(A Government of India Enterprise)

Bid No: SECI/Cont./Ind./68/2014

Date:23-06-2014

On behalf of Power Finance Corporation Limited (PFC), Solar Energy Corporation of India (hereinafter called "SECI" or "Employer"), invites bids from SECI empanelled companies only to participate in the Bid for "Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhodd Dian and Baswala) under Ambala circle in Haryana State".

For the implementation of above mentioned work, Bidders should submit their bid proposal along with all supporting documents complete in all aspect on or before 22.07.2014 up to 2.00 P.M in the office of "Employer" in prescribed format.

Bidder shall submit bid proposal along with non-refundable processing fee, complete in all respect as per the Bid Information sheet. Commercial and Price bid will be opened on 22.07.2014 at 3:00P.M in presence of authorised representatives of bidders who wish to be present. Bid proposals received without the prescribed processing fee and Bid Bond will be rejected. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.

Bid documents which include Eligibility criteria, "Technical Specifications", various conditions of contract, formats, etc, can be downloaded from SECI website [www.seci.gov.in](http://www.seci.gov.in). Any amendment (s)/corrigendum/Clarifications with respect to this Bid shall be uploaded on SECI website only. The Bidder should regularly follow up for any Amendment/Corrigendum/Clarification on the above website(s).

**Dy. Manager (Contracts)**

**DISCLAMIER:**

1. Though adequate care has been taken while preparing the Bid document, the Bidders shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within twenty (20) days from the date of notification of Bid document, it shall be considered that the Bid document is complete in all respects and has been received by the Bidder.
2. Solar Energy Corporation of India (SECI) reserves the right to modify, amend or supplement this Bid document.
3. While this Bid document has been prepared in good faith, 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 Bid document, even if any loss or damage is caused by any act or omission on their part.

### **BID INFORMATION SHEET**

<b>Document Description</b>	Implementation of Mini Grid Solar PV plant with aggregate capacity of 101 kW in three villages (i.e. Bhoj Nagal, Bhood Dian and Baswala) under Ambala circle in Haryana State".
<b>Bid No. &amp; Date</b>	SECI/Cont./Ind./68/2014 Dated: 23.06.2014
<b>Broad Scope</b>	<ul style="list-style-type: none"> <li>• Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation &amp; Maintenance (O&amp;M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhood Dian and Baswala) under Ambala circle in Haryana State.</li> <li>• For further details please refer Clause 1.2 of Section-II (ITB) and Clause 5 of Section-VI (Technical Specifications) of the Bid document.</li> </ul>
<b>Pre-bid Conference/ Clarification Meeting</b>	A pre-bid conference shall be held on <b>08.07.2014</b> at 11:00 A.M. at SECI Office. Only one person from the bidder company is allowed to attend the same
<b>Last date &amp; Time of Submission of Response of RFS</b>	<b>22-07-2014</b> up to 2.00 P.M
<b>Bid Opening (Commercial &amp; Price Bid)</b>	<b>22-07-2014</b> at 3:00 P.M
<b>Processing Fee (non- refundable)</b>	<b>Rs. 16,854/-</b> (Rs. Sixteen Thousand Eight Hundred Fifty Four only) inclusive of Service tax @12.36% to be furnished through Demand Draft (DD) drawn in favour of "Solar Energy Corporation of India", payable at New Delhi along with Bid.
<b>BID BOND</b>	Bidder has to furnish the Demand Draft (DD) drawn in favour of "Solar Energy Corporation of India", payable at New Delhi along with Bid for the amount of <b>Rs. 6,00,000/-(Six Lakhs Only)</b> . Please refer ITB Clause 10 of Section –II for further details.

<b>Performance Security in the form of PBG</b>	10 % of total project cost / Contract Price shall be furnished within 21 days of the receipt of Notification for Award of Work from the Employer. Please refer GCC Clause 5 of Section –III.
<b>Name, Designation, Address and other details (For Submission of Response to RFS)</b>	Dy. Manager (Contracts) Solar Energy Corporation of India D-3, A Wing, 1st Floor, Religare Building, District Centre, Saket, New Delhi-110 017 Phone No:011-71989238
<p><b><u>Important Note:</u></b></p> <p>Prospective empanelled companies are requested to remain updated for any notices/amendments/clarifications etc. to the Bid document through the website <a href="http://www.seci.gov.in">www.seci.gov.in</a>.</p> <p>No separate notifications will be issued for such notices/amendments/clarification etc. in the print media or individually.</p> <p>All the information related to this Bid document shall be updated in the SECI website <a href="http://www.seci.gov.in">www.seci.gov.in</a>.</p>	

## **INDEX**

<b>SECTION NO.</b>	<b>CONTENTS</b>	<b>PAGE NO.</b>
SECTION-I	DEFINITIONS & INTERPRETATION	7-12
SECTION-II	INFORMATION & INSTRUCTIONS TO BIDDERS(ITB)	13-25
SECTION-III	GENERAL CONDITIONS OF CONTRACT(GCC)	26-49
SECTION-IV	SPECIAL CONDITIONS OF CONTRACT(SCC)	50-57
SECTION-V	CERTIFICATES AND PAYMENTS	58-63
SECTION-VI	TECHNICAL SPECIFICATION	64-81
SECTION-VII	PRICE BID	82-84
SECTION-VIII	FORMATS FOR SUBMITTING BID (1 to 4)	85-96
	ANNEXURE (1 to 2)	97-99

## **SECTION-I: DEFINITIONS & INTERPRETATION**

## SECTION-I: DEFINITIONS & ABBREVIATIONS

### 1.0. Definitions

- 1.1. In the “Bid / Tender / Contract Document” as herein defined where the context so admits, the following words and expression will have the following meaning:
- 1.2. **“Authorised signatory”** shall mean a person in whose name Power of Attorney has been executed at the time of empanelment. In case bidders want to change the Power of Attorney then he can do so at the time of bidding only. In that case board resolution and PoA shall be submitted in favour of authorised signatory by the bidding company
- 1.3. **“B.I.S”** shall mean specifications of Bureau of Indian Standards (BIS);
- 1.4. **“Bid / Limited Tender”** shall mean the Commercial and the Price Bid submitted by the Empanelled Companies / Bidding Company / Bidder / Tenderer along with all documents/credentials/attachments, formats, etc., in response to this Bid Document, in accordance with the terms and conditions hereof.
- 1.5. **“Bid Bond”** shall mean the Demand Draft (DD) drawn in favour of “Solar Energy Corporation of India”, payable at New Delhi along with Bid for the amount of Rs. 6,00,000/- (Six Lakhs Only). Please refer ITB Clause 10 of Section –II;
- 1.6. **“Bid Deadline”** shall mean the last date and time for submission of Bid in response to this Bid as specified in Bid information Sheet and as specified in Bid information sheet, Page No.4 of this Bid document including all amendments thereto ;
- 1.7. **“Bid Document”** shall mean all Definitions, Sections, Layouts ,Drawings, Photographs, Formats & Annexures etc as provided in the Bid No SECI/Cont./Ind./68/2014 dated 23.06.2014 including all amendments/clarifications thereof.
- 1.8. **“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;
- 1.9. **“Competent Authority”** shall mean Managing Director (MD) of Solar Energy Corporation of India himself and/or a person or group of persons nominated by MD for the mentioned purpose herein;
- 1.10. **“Contract”** means the Letter of Award (LoA) issued by Employer to the Contractor, including all the attachments and appendices thereto and all documents incorporated by reference therein;



- 1.11. **"Contract Price / Contract Value"** shall mean the sum calculated in accordance with the prices accepted in Bid and / or the Contract rates as payable to the Contractor for the entire execution and full completion of the Work .
- 1.12. **"Completion of Work"** means that the Project/Works that have been awarded are completed operationally and structurally and Commissioning has been attained as per Technical Specifications.
- 1.13. **"Commissioning"** means successful operation of the Project / Works by the Contractor after carrying out Guarantee Test(s) and issuance of Commissioning certificate by SECI/Employer.
- 1.14. **"Contract Document"** shall mean collectively the Bid Document, Design, Drawings, and Specifications, Annexures, agreed variations, if any, and such other documents consisting the bid and acceptance thereof;
- 1.15. **"Contractor's Equipment"** means all plant, Works, equipment, machinery, tools, apparatus, appliances or things of every kind required in or for installation, completion and maintenance of Works that are to be provided by the Contractor, but does not include plant and equipment, or other things intended to form or forming part of the Works.
- 1.16. **"Day"** means calendar day;
- 1.17. **"Employer" or "SECI"** shall mean Solar Energy Corporation of India , New Delhi (A Govt. of India Enterprise) under the administrative control of MNRE;
- 1.18. **"Eligibility Criteria"** shall mean the Eligibility Criteria as set forth in ITB Clause 2.0 of this BID;
- 1.19. **"Engineer-in-Charge"** shall mean the person designated from time to time by the Employer and shall include those who are expressly authorized by him to act for and on his behalf for operation of this Contract;
- 1.20. **"Effective Date"** means the date from which the Time for Completion shall be determined;
- 1.21. **"Empanelled Applicant / Empanelled Company/ Bidding Company / Bidder / Tenderer"** shall mean Bidding Company submitting the Bid. In pursuant to RFE No: SECI/Cont./Ind./49/SMG/2013 Dated: 25.06.2013 and subsequent Amendment & Clarification dated 24.07.2013 & 30.07.2013, those Applicants who were declared Empanelled by SECI website notification dated 27.12.2013 for implementation of Mini/Micro grid projects(plants) in India by Employer / SECI are the eligible bidders to participate in this Bidding process.”;
- 1.22. **"GCC"** means the General Conditions of Contract contained in this section;
- 1.23. **"GHI"** shall mean Global Horizontal Irradiation

- 1.24. "**Goods**" means permanent plant, equipment, machinery, apparatus, articles and things of all kinds to be provided and incorporated in the Works by the Contractor under the Contract but does not include Contractor's Equipment;
- 1.25. "**Guarantee Test(s)**" means the test(s) specified in the Technical Specification to be carried out to ascertain whether the Project/Works is able to attain the functional requirements specified in the Technical Specifications.
- 1.26. "**The Government**" means the Government of India.
- 1.27. "**IEC**" shall mean specifications of International Electro-technical Commission;
- 1.28. "**MNRE**" shall mean Ministry of New and Renewable Energy, Government of India;
- 1.29. "**Mobilization**" shall mean establishment of adequate infrastructure by the Contractor at Site comprising of construction equipment's, aids, tools tackles, offices with facilities such as power, water, communication etc. including manpower comprising of Engineers, Supervising personnel and an adequate strength of skilled, semi-skilled and un-skilled workers, who with the so established infrastructure shall be in a position to commence execution of Work at site(s), in accordance with the agreed Time Schedule of Completion of Work.
- 1.30. "**O&M**" shall mean Operation & Maintenance (O & M) of Mini Grid SPV Power Plant in Bhoj Nagal, Bhodh Dian and Baswala villages under Ambala circle in Haryana State as explained in Clause 13 of SCC ;
- 1.31. "**PFC**" means the Power Finance Corporation;
- 1.32. "**Price Bid**" shall mean Envelope II of the Bid, containing the Bidder's Quoted Price as per the Section- VII of this BID;
- 1.33. "**Representative**" shall mean any employee or agent of Power Finance Corporation nominated by Employer for the purpose mentioned therein.
- 1.34. "**SNA**" shall mean State Nodal Agency.
- 1.35. "**SCC**" means the Special Conditions of Contract.
- 1.36. "**Statutory Auditor**" shall mean the auditor of a Company appointed under the provisions of the Companies Act, 1956 or under the provisions of any other applicable governing law;
- 1.37. "**Services**" means all those services ancillary to the supply of the Works, to be provided by the Contractor under the Contract; e.g. transportation(including loading, unloading and transfer to Site) and provision of marine or other similar insurance, inspection, expediting, Site preparation works (including the provision and use of Contractor's Equipment and the supply of all Mini grid related equipments, civil & structural works and construction materials required),

installation, /Pre-commissioning, commissioning, carrying out guarantee tests, operations, maintenance, the provision of operations and maintenance manuals, training of Employer's personnel and one or two persons from the beneficiaries groups are imparted trainings etc.

- 1.38. **“Successful Bidder(s) / Contractor(s)”** shall mean the Bidder(s) selected by Employer pursuant to this Bid for “Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plant(s) for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhodd Dian and Baswala) under Ambala circle in Haryana State”.
- 1.39. **“Site”** means the Land and other places upon which the Works are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site. The details of the Site are as per Annexure-1 of Section-VIII
- 1.40. **“Sub-Contractor”** means any person or firm or Company (other than the Contractor) to whom any part of the Work has been entrusted by the Contractor, with the written consent of the Engineer-in-Charge-In-Charge, and the legal representatives, successors and permitted assigns of such person, firm or company.
- 1.41. **“Standards”** shall mean the standards mentioned in the technical specification of the goods and equipment utilized for the Work or such other standard which ensure equal or higher quality and such standards shall be latest issued by the concerned institution like Bureau of Indian standards (BIS), MNRE, etc.
- 1.42. **“Time for Completion”** means the time within which Completion of the Project/Works is to be attained in accordance with the stipulations in the SCC Clause 11 of Section-IV and the relevant provisions of the Contract;
- 1.43. **“Work”** means the “Goods” to be supplied and installed, as well as all the “Services” to be carried out by the Contractor under the Contract;
- 1.44. **“Wp”** shall mean Watt Peak

## **INTERPRETATIONS**

1. Words comprising the singular shall include the plural & vice versa
2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
4. 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.
5. 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-II: INFORMATION & INSTRUCTIONS TO BIDDERS (ITB)**

## **SECTION-II: INFORMATION & INSTRUCTIONS TO BIDDERS (ITB)**

### **1.0 General Information:**

- 1.1** As a part of Jawaharlal Nehru National Solar Mission, MNRE launched off-grid schemes for the promotion of solar applications. Under these schemes, Solar Energy Corporation of India (**hereinafter called “SECI or the Employer”**) has been mandated to implement Mini/Micro Grid SPV power plants in India. The PFC and SECI has formalized an MoU for the purpose of assigning SECI the turn-key task of Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhlood Dian and Baswala) under Ambala circle in Haryana State. SECI has empanelled companies for implementation of Mini/Micro grid projects in India vide RFE.No: SECI/Cont./Ind./49/SMG/2013 dated 25.06.2013 and subsequent Amendments & clarifications, those Applicants who were shortlisted and declared by SECI vide Notification No: SECI/Contt./Ind./49/SMG/2012 dated 27.12.2013 are considered as eligible bidders to participate in this Bidding process. SECI would select the implementing agency through this Bidding process for execution Mini/Micro grid SPV projects in aforementioned three villages under Ambala circle in Haryana State.

### **1.2 General Scope of Work:**

- 1.2.1** For Mini Grid SPV Power Plants Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning. The payment for initial Five(5) years will be made by SECI as per clause 5 of Section-IV (SCC).
- 1.2.2** The maximum allowable project cost for the **Mini grid SPV system is Rs. 300/- Per Wp.**
- 1.2.3** Contractor shall identify the Land(s) for development of Mini Grid SPV plant(s) and facilitate SECI to have legal agreement from Land Owner(s) for agreement regarding right to use/Lease deed for 21 years in favour of SECI/Employer. (The format for Lease deed/agreement shall be furnished later). No separate payment will be made by SECI regarding land for lease rent or any other purpose and Successful bidder /Contractor shall be required to bear entire expenditure for the duration of Contract.
- 1.2.4** Site development and Construction of Mini grid SPV plant(s) shall be the complete responsibility of the contractor.

- 1.2.5 SECI/ Employer will be the legal owner of Mini grid SPV plant(s) throughout the Contract period and Contractor shall have no rights and claims on assets of mini grid power plant(s) up to 20 years from the date of commissioning. Successful bidder / Contractor will be the custodian of Mini grid solar PV plants and will be responsible for any theft, loss and damage of assets, etc. belongs to Mini grid plant(s). All the recoveries pertaining to any loss of asset due to above reasons shall be on account of Contractor only. At the end of 20 years of O&M, Mini grid plant(s) may be handed over to VLC or Village level Entrepreneurs at sole discretion of SECI.
- 1.2.6 SECI will provide Eighty Percent (80%) of the total Project Cost as quoted by the Successful Bidder in Price Bid from various sources. The remaining Twenty Percent (20%) funds have to be arranged by the successful bidder/ contractor on their own. For further details please refer Clause 5 of Section-IV (SCC).
- 1.2.7 The time period for O&M shall be 20 years from the date of commissioning. O&M cost for the initial 5 years shall be included in the price bid. Thereafter, Successful bidder / Contractor shall make the O&M self-sustainable by collecting money in the form of tariff as per clause 1.6 below from the beneficiary from the date of commissioning of Mini grid plant(s) in coordination with villagers or with Village Level Committee (VLC) members. For further please refer clause 13 of Section-IV (SCC).
- 1.2.8 Time period for commissioning/completion of entire Project as per clause 11 of Section-IV (SCC). shall be 4 months from the date of Notification of Award. However, Identification of Land by the contractor and submission of relevant documents like Lease deed / agreement from legal owner Land(s) shall be carried out within two(2) months from the date of Notification of Award which can be increased at the sole discretion of SECI but the total time of completion of projects(s) shall remain unaltered from its original 4 months schedule as per above. Failure of non- compliance of same shall lead to forfeiture of Performance Bank Guarantee (PBG) / Performance Security.
- 1.3** The Bidder is advised to read carefully all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the Bid document must be furnished by the Bidders. Failure to provide the information and / or documents as required may render the submitted Bid as Commercially unacceptable.
- 1.4** *The Bidder shall be deemed to have examined the Bid document, to have obtained his own information in all matters whatsoever that might affect carrying out the Works in line with the Scope of Work specified in the document at the offered rates and to have satisfied himself to the sufficiency of his Bid. The bidder shall be deemed to know the scope, nature and magnitude of the work, energy demand, terrain distance from generation to distribution points and requirement of materials, equipment, tools and labour involved, wage structures and as to what all*

*works he has to complete in accordance with the Bid documents irrespective of any defects, omissions or errors that may be found in the Bid documents.*

## **1.5 Project Capacity details**

The aggregate capacity proposed to be set up is 101 kW Mini Grid SPV power plants at three villages under Ambala circle in Haryana State. The Bidder shall quote only for full capacity in all these three villages. The details of the maximum capacity to be installed by the bidders against each village are as follows, however bidder must be familiarize with the actual site conditions before submitting the bid :

- a. Bhoj Nagal-48 kW,
- b. BhooDian -28 kW
- c. Baswala -25 kW

1.5.1 The capacity indicated against each village above may be increased or decreased by 25% at the sole discretion of SECI. The details of location is indicated in Annexure-1 of Section-VIII, which may vary at the time of execution of work.

## **1.6 Tariff for Mini grid Solar PV power Plants:**

1.6.1 The tariff allowed for the different villages for households will be a two part tariff which is fixed for first year from the date of commissioning is as follows:

1.6.1.1 Monthly fixed tariff Rs. 350/-

1.6.1.2 Per unit charge Rs. 4/kWh

1.6.2 On second year onwards the tariff should be 10% (Ten percent) lower than the nearest local DISCOM (UHBVN) tariff for households up to 19 years.

1.6.3 No separate tariff shall be allowed to be charged for street lighting.

1.6.4 Above tariff as per Clause 1.6.1 and 1.6.2 is applicable only for residential and not for commercial. In case of any commercial load, tariff will be decided by Successful bidder and prospective consumers mutually.

## **2.0. Eligibility Criteria**

2.1. Companies who were shortlisted and declared by SECI vide Notification No: SECI/Contt./Ind./49/SMG/2013 dated 27.12.2013 are considered as eligible bidders to participate in this bidding process. SECI would select the implementing agency through this Bidding process for execution of Mini grid SPV projects in three villages under Ambala circle in Haryana State as per the details of the Bid document.



### **3. Cost of Bidding:**

- 3.1. The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer, will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the Bid process.

### **4. Contents of the Bid Document**

- 4.1 The goods and services required, Bidding procedures and contract terms are prescribed in the Bid documents. In addition to the Definition and Interpretation, the Bid document includes:

- a. Information & Instruction to Bidders (ITB) ;
- b. General Conditions of Contract (GCC) ;
- c. Special Conditions of Contract (SCC);
- d. Certificates and Payments
- e. Technical Specifications;
- f. Price Bid
- g. Formats -1 to Formats -4;
- h. Annexure -1 to Annexure- 2

- 4.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bid document. Failure to furnish all information as required in the Bid document or submission of a Bid not substantially responsive to the Bid documents in every respect will be at the Bidder's risk and may result in rejection of its Bid.

### **5. Clarification of Bid Documents**

- 5.1. A prospective Bidder requiring any clarification on the Bid documents may notify the Employer in writing/Fax/Email at the Employer's mailing address indicated in the ITB Clause 13.1 d (iv), which it receives not later than 3 days after the Pre-Bid meeting. The Employer may choose not to respond or give any clarification. If the Employer chose to respond it will be given by uploading on Employer website ([www.seci.gov.in](http://www.seci.gov.in)). The Bidder should have a regular follow-up of the website for any amendments/ corrigendum/ clarifications. The clarification / response shall be to all the prospective Bidders but without identification of the particular person asking for the clarification. The clarification given shall become a part of the Bid conditions. In addition, it is for the Employer to send a written communication of all clarifications to the Bid/Tender, If the Employer chooses to do but without any obligation to do so and there shall not be any implication if such communication is not sent or otherwise not received by the one or more Bidders. Any clarification or response given except as mentioned above or by any person other than the person authorised by the Employer for the purpose shall not be valid.
- 5.2. The purpose of the pre-bid meeting will be to clarify any issues regarding the Bid/ tender including in particular, issues raised in writing and submitted by the Bidders.

5.3. SECI is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.

## 6. **Amendment of Bid Documents**

6.1. At any time prior to the deadline for submission of Bids, the Employer may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid document by issuing clarification(s) and/or amendment(s).

6.2. The clarification(s) / amendment(s) (if any) will be notified on Employer website [www.seci.gov.in](http://www.seci.gov.in) at least Two (2) days before the proposed date of submission of the Bid. If any amendment is required to be notified within Two (2) days of the proposed date of submission of the Bid, the Bid Deadline may be extended for a suitable period of time.

6.3. Employer will not bear any responsibility or liability arising out of non-receipt of the information regarding Amendments in time or otherwise. Bidders must check the websites for any such amendment before submitting their Bid.

6.4. In case any amendment is notified after submission of the Bid (prior to the opening of Commercial Bid. Bids received by Employer shall be returned to the concerned Bidders through registered post or courier and it will be for the Bidders to submit fresh Bids as per the date notified by the Employer for the purpose.

6.5. All the notices related to this Bid which are required to be publicized shall be uploaded on [www.seci.gov.in](http://www.seci.gov.in) and bidders are required to keep themselves updated on the same.

## 7. **Void**

## 8. **Documents Constituting the Bid in the Envelope -1**

8.1. The Commercial bid prepared by the Bidder shall comprise the following components :

8.1.1. Covering Letter as per prescribed Format-1.

8.1.2. Bid Processing fee as per the Bid information sheet

8.1.3. Bid Bond as per the Bid information sheet,

8.1.4. If bidder wishes to change the power of Attorney than he can to do so by submitting the fresh original Power of Attorney, in the format attached hereto as Format-3 or he can submit general Power of Attorney in favour of authorized person signing the Bid. **(Power of Attorney must be supplemented by Board resolution to above effect.)**

- 8.1.5. Signed and stamped Copy of Bid Documents including amendments & clarifications by Authorised signatory on each page.

**Note:**

**At the time of Bid opening above documents should be enclosed in the Envelope-1. Bid will be considered as non-responsive if submission required under clause 8.1.1, 8.1.2 and 8.1.3 are not found. Only price bids of responsive bidders shall be opened on the Bid opening date. Price bid of non-responsive bidders will not be opened and will not be considered.**

**9. Price Bid**

**9.1. Maximum allowable project cost**

The maximum allowable project cost for the **Mini grid SPV system is Rs. 300/- Per Wp.** Project cost should be inclusive of all taxes and duties and shall not exceed more than Rs.300/- Per Wp. The price bid with Project cost more than Rs.300/- Per Wp shall not be considered.

- 9.2. The Bidder shall indicate in the Price Bid, the unit prices in figure and words Rs. (INR) and total Bid prices of the Goods & Services in the prescribed format only, it proposes to supply & commission under the Contract. Bidders shall quote for the complete requirement of Goods and Services specified under the Contract on a single responsibility basis, failing which such Bids will not be taken into account for evaluation and will not be considered for award.
- 9.3. The Bidder's separation of the price components in accordance with ITB Clause 9.2 above will be solely for the purpose of facilitating the comparison of Bids by the Employer and will not in any way limit the Employer's right to contract on any of the terms offered.
- 9.4. Statutory variation in applicable taxes & duties shall only be on account of Employer and other prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. Bids shall be of firm Price only and a Bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to ITB Clause 19.
- 9.5. Prices shall be quoted in Indian Rupees.
- 9.6. The price mentioned in column No. 4 of Price bid shall only be considered for purpose of evaluation of Price bid.**
- 9.7. Break-up of all applicable taxes & duties on the contract shall be indicated in Sr. No 5 of Price Bid. These Taxes & Duties shall be reimbursed at actuals against submission of original documentary evidence.

9.8. The rates quoted by the bidder for all materials, required to be purchased for the satisfactory performance of this contract, shall be deemed to be inclusive of all duties, taxes, octroi, royalties, rentals etc.

## **10. Bid Bond**

10.1. The Bidder shall furnish, as part of its Bid, an interest free Bid Bond for the amount as specified in Bid Information Sheet.

10.2. The Bid Bond is liable to be forfeited and encashed in any of the events as brought out in ITB Clause 10.7

10.3. The Bid Bond shall be denominated in Indian Rupees and in the form of Demand Draft (DD) as per the Bid information sheet.

i. be submitted in its original form; copies will not be accepted;

10.4. Any Bid not secured in accordance with ITB Clauses 10.1 and 10.3 above will be rejected by the Employer as nonresponsive, pursuant to ITB Clause 19.

10.5. Unsuccessful Bidder's Bid Bond will be discharged/returned as promptly as possible, but not later than 30 days after the expiration of the period of Bid validity period prescribed by the Employer, pursuant to ITB Clause 11.

10.6. The successful Bidder's Bid Bond will be discharged upon the Bidder acknowledging the Letter of Award and furnishing the performance security, pursuant to GCC Clause 5.

10.7. The Bid security or Bid Bond may be forfeited in any of the following circumstances by the Employer:

10.7.1. if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder ;

10.7.2. in case of a successful Bidder, if the Bidder fails:

i. to furnish performance security in accordance with GCC Clause 5.

10.7.3. If the Bidder withdraws or varies its bid during the period of bid validity specified by the bidder.

10.7.4. If the bidder/his representatives commits any fraud while competing for this Contract.

## **11. Period of Validity of Bid**

11.1. Bid shall remain valid for 135 days from the Bid Deadline of Bids prescribed by the Employer, pursuant to ITB Clause 14. A Bid valid for a shorter period shall be rejected by the Employer as non-responsive.

- 11.2. In exceptional circumstances, the Employer may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid Bond provided under ITB Clause 10 shall also be suitably extended. A Bidder may refuse the request to extend the validity without forfeiting its Bid Bond. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

## 12. Format and Signing of Bid

- 12.1. The original and all copies of the documents shall be typed or written in indelible ink and shall be signed and stamped by the authorized person. The letter of Authorization shall be indicated by written power-of attorney accompanying the Bid. All pages of the Bid, except for unamended printed literature, shall be signed by the authorized person signing the Bid.
- 12.2. Any interlineations, erasures or overwriting shall be valid only if they are duly signed by the person signing the Bid.

## 13. Sealing and Marking of Bids

- 13.1. Bid shall be prepared and sealed in the following manner:

- a. There shall be Cover Envelope **superscribed as Envelope-3**, which shall contain two smaller envelopes superscribed as **“Commercial Bid(Envelope-1)” & “Price Bid (Envelope-2)”**.
- b. The **“Envelope-1”** shall contain the following documents and **shall be superscribed with Bid No \_\_ and date along with “Envelope-1 ”**.
  - i. Covering letter, Processing fee , Bid Bond of requisite amount , Power of Attorney & Board resolution(if required), and Signed and stamped Copy of Bid Documents including amendments & clarifications by the Authorised signatory on each page
- c. The **“Envelope-2 (Price bid)”** shall contain the following documents and **shall be super scribed with Bid No \_\_ and date along with “Envelope-2 ”**.
  - i. The “Sealed Price Bid” shall contain the Price Bid as per format specified in the Bid document.
  - ii. A certificate from Chartered Accountant indicating the applicable taxes & duties on the contract.
- d. The Cover envelope (**Envelope-3**) shall be superscribed
  - i. Bid No and Date
  - ii. Date of Bid Opening: \_\_\_\_\_ **at 3.00 p.m**
  - iii. Not to be opened before 1500hrs on \_\_\_\_\_, **2014.**
  - iv. Addressed to the Employer at the following address:

**Dy. Manager (Contracts)**  
**Solar Energy Corporation of India**  
**D-3, A Wing, 1st Floor,**  
**Religare Building, District Centre,**  
**Saket, New Delhi-110 017**

- e. All the envelopes shall be sealed properly & shall indicate the Name & address of the Bidder.
- f. If the outer envelope is not sealed and marked as required by ITB Clause 13, the Employer will assume no responsibility for the Bid's misplacement or premature opening.
- g. Email , Telex, cable or facsimile Bids will be rejected.
- h. The Bid must be complete in all technical and commercial respect and should contain requisite documents, certificates, drawings, informative literature etc. as required in the Bid document.
- i. Each page of the Bid document should be signed & stamped including amendment(s) and clarification(s). Bids with any type of change or modification in any of the terms/ conditions of this document shall be rejected. If necessary, additional papers may be attached by the Bidder to furnish/ submit the required information.
- j. Any term/condition proposed by the Bidder in his bid which is not in accordance with the terms and conditions of the Bid document or any financial conditions, payment terms, rebates etc. mentioned in Price bid shall be considered as a conditional Bid and will make the Bid invalid.

**14. Deadline for Submission of Bids**

- a. Bids must be received by the Employer at the address specified under ITB Clause 13.1 (d) no later than the time and date specified in the Bid information sheet. In the event of the specified date for the submission of Bids being declared a holiday for the Employer, the Bids will be received up-to the appointed time on the next working day.
- b. The Employer may, at its discretion, extend this deadline for submission of Bids by amending the Bid documents in accordance with ITB Clause 6, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

**15. Late Bids**

Any Bid received by the Employer after the deadline for submission of Bids prescribed by the Employer, pursuant to ITB Clause 15, will be rejected and/or returned unopened to the Bidder.

## **16. Modification and Withdrawal of Bids**

- a) The Bidder may modify or withdraw its Bid after the Bid's submission, provided that written notice of the modification or withdrawal is received by the Employer prior to the deadline prescribed for submission of Bids.
- b) The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of ITB Clause 13. A withdrawal notice may also be sent by Fax/E-mail but followed by a signed confirmation copy by post not later than the Bid dead line for submission of Bids.
- c) No Bid shall be modified at the time of Bid opening or subsequent to opening of Commercial bid & Price bid.
- d) No Bid shall be withdrawn in the interval between date of opening of Commercial bid & Price bid and the expiration of the period of Bid validity specified by the Bidder. Withdrawal of a Bid during this interval may result in the Bidder's forfeiture of its Bid Bond, pursuant to ITB Clause 10.7.

## **17. Opening of Bids by the Employer**

- 17.1. The Employer will start opening the Cover envelope of the bids received in the presence of Bidders' representatives who choose to attend, at the following location:

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

The Bidders' representatives who are present shall sign a register evidencing their attendance. In the event the specified date of Commercial & price Bid opening being declared a holiday, the Bids shall be opened at the appointed time and location on the next working day.

- 17.2. The Employer shall first open the Envelope-1. If Bid Bond ,processing fee & covering letter are not found in order then bid of such Bidders shall be summarily rejected. Bidders whose "Processing fee , Bid Bond & Covering letter" are found to be in order shall then only be processed for price bid opening in the same day.
- 17.3. The Bidders names, Bid prices, and the presence or absence of requisite Bid security and other required details as the Employer, at its discretion, may consider appropriate, will be announced at the opening.
- 17.4. In case the scheduled Bid opening date is a Holiday, then the next working day shall be the bid opening date. The time for Bid submission and Bid opening will remain same on the new bid opening date. It is in the interest of the Bidders to

send their authorized representatives who are well conversant with the Bid. Only one person from the bidding company is allowed to participate in the opening of the Bids.

18. **Void**

19. **Preliminary Examination**

19.1. The Employer will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, and whether the Bids are otherwise in order.

19.2. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total amount that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total amount shall be corrected. If there is a discrepancy between words and figures, the amount written in words will prevail.

20. **Zero Deviation Bids**

This is a ZERO Deviation Bidding Process. Bidder is to ensure compliance of all provisions of the Bid Document and submit their Bid accordingly. Bids with any deviation to the bid conditions shall be liable for rejection.

21. **Evaluation and Comparison of Bids**

21.1. The Employer will evaluate and compare the Bids which have been determined to be responsive, pursuant to ITB Clause 19.

21.2. Price Bids shall be evaluated for Award of Work.

The maximum allowable project cost for the Mini grid SPV system is Rs. 300/- Per Wp. Project cost should be inclusive of all taxes and duties and shall not exceed more than Rs.300/- Per Wp. The price bid with Project cost more than Rs.300/- Per Wp shall not be considered.

22. **Contacting the Employer**

22.1. Bidder shall contact the Employer on any matter relating to its Bid, from the time of the Bid opening to the time the Contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

22.2. Any effort by a Bidder to influence the Employer in its decisions on Bid evaluation, Bid comparison or contract award may result in rejection of the Bidder's Bid.

23. **Void**

24. **Employer's Right to Accept Any Bid and to Reject Any or All Bid**

24.1. The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to contract award at its sole



discretion for whatsoever reasons and without incurring any liability whatsoever to any of the Bidder for any cost expense loss etc.

## **25. Corrupt or Fraudulent Practices**

25.1. The Employer requires that Bidders/ Contractors should follow the highest standard of ethics during the procurement and execution of Employer financed contracts. In pursuance of this policy, the Employer defines, for the purposes of this provision, the terms set forth as follows :

25.1.1. “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and

25.1.2. “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition;

25.1.3. will declare a firm ineligible/debarred, either indefinitely or for a specific period of time, a Employer financed contract if at any time it is found that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government/ Employer financed contract.

## **26. Correspondence for Seeking clarifications**

Applicant requiring any Techno-Commercial clarification of the bid documents may contact in writing or by Fax /E Mail

<b>Name</b>	<b>Contact Number</b>	<b>Clarification Type</b>	<b>Phone No.</b>	<b>Email id</b>
Sh. Shibasish Das	011-71989228	Technical requirements	Solar Energy Corporation of India (SECI), Telephone: 011-71989200	<a href="mailto:shibasish@seci.gov.in">shibasish@seci.gov.in</a>
Sh. Avnish Parashar	011-71989238	Contracts/Commercial		<a href="mailto:contracts@seci.gov.in">contracts@seci.gov.in</a>
Sh. T Ramraj	011-71989232	Techno-Commercial		

### **SECTION III: GENERAL CONDITIONS OF CONTRACT (GCC)**

## **SECTION III – GENERAL CONDITIONS OF CONTRACT (GCC)**

### **1. Application**

- 1.1. These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

### **2. Language of Bid**

The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language duly certified by the bidder, in which case, for purposes of interpretation of the Bid, the translation shall govern.

### **3. Standards**

The Goods and Services supplied under this Contract shall conform to the standards mentioned in the Technical Specifications.

### **4. Use of Contract Documents and Information; Inspection and Audit by the Government**

- 4.1. The Contractor shall not, without the Employer's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Employer in connection therewith, to any person other than a person employed by the Contractor in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.
- 4.2. The Contractor shall not, without the Employer's prior written consent, make use of any document or information enumerated in GCC Clause 4.5 except for purposes of performing the Contract.
- 4.3. Any document, other than the Contract itself, enumerated in GCC Clause 4.5 shall remain the property of the Employer and shall be returned (in all copies) to the Employer on completion of the Contractor's performance under the Contract if so required by the Employer.
- 4.4. The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

#### **4.5. Patent Rights**

Royalties and fees for patents covering material/ equipment or processes used in executing the work shall be to the account of the Contractor. The Contractor shall satisfy all demands that may be made at any time for such royalties and fees and he alone shall be liable for damages, infringement and shall keep the Employer indemnified in that regard in the event of any equipment / material part thereof supplied by the Contractor is involved in any suit or proceedings held to constitute infringement and its use is enjoyed, the Contractor shall at his own expenses either procure for the Employer the right to continue the use of such equipment / material or replace it with a non-infringing material / equipment or modify it so it become non infringing.

#### **5. Performance Security/ Performance Bank Guarantee (PBG) towards Security:**

5.1. Within 21days of receipt of the Notification of Award from the Employer, the Contractor shall furnish Performance Security initially to the Employer for an amount of 10% of the total project cost / Contract Price valid up to 5.5 years from the date of Notification of Award which includes initial Five(5) year of O&M completion. There after PBG shall be renewed as per clause 5.4 below.

5.2. Performance security shall be forfeited by the Employer in the event of Contractor's failure to complete its obligations under the Contract or breach of contract conditions.

5.3. The Performance Security shall be denominated in Indian Rupees and shall be in one of the following forms:

5.3.1. a demand draft, or a bank guarantee from the list of banks as per the details enclosed in annexure-2 ;

5.4. Performance Security(PBG) shall be reduced by 2.5% on every 5 years basis by the Contractor till the completion of 20 year of O&M from the date of Commissioning. The value of performance security shall be reduced by 2.5 % on completion of 5 years from the date of commissioning. Successful bidder shall furnish amended bank guarantee valid for next 5 years.

5.4.1. The process of submission of reduced value bank guarantee(reduced by 2.5% on every 5 years basis ) valid for next 5 years shall be followed till the end of completion of 20<sup>th</sup> year of O&M w.e.f. date of completion of initial 5 years of O&M period from the date of commissioning.

5.5. SECI shall notify the renewal of PBG at-least 10 days before the schedule date of its expiry. Failure for renewal of PBG may lead to:

- 5.5.1. Cancellation of future payments by SECI to the Contractor for the Contract
- 5.5.2. Forfeiture of PBG.
- 5.5.3. Cancellation of Project.
- 5.5.4. Appropriation of all assets belongs or brought by the Contractor at Site.
- 5.5.5. Debarring of the bidder for the appropriate period as decided by the competent authority of SECI to participate in the future tenders of the similar category and / or cancellation of the empanelment with the SECI

- 5.6. In the event of any contract amendment for the period of contract, the Contractor shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security in line with GCC clause 5.1 mentioned above.

## **6. Inspections and Tests**

### **6.1. Inspection of Goods**

- 6.1.1. The Employer or its representative shall have the right to inspect the quality checks on the materials /systems & testing of specifications /parameters as per standards will be carried out at the works of the Contractor /supplier before dispatch of materials to site to confirm their conformity to the Contract specifications at no extra cost to the Employer. (SCC and the Technical Specifications shall specify what inspections and tests the Employer requires and where they are to be conducted). The Employer may send a representative / group of representatives to the contractor / supplier's premises for inspection of the material / components / system before dispatched and at site before installation.
- 6.1.2. The inspections and tests may be conducted on the premises of the Contractor or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Contractor or its subcontractor(s), all reasonable Works and assistance, including access to drawings and production data shall be furnished to the inspectors at no cost to the Employer.
- 6.1.3. If upon delivery, whether inspected and approved earlier or otherwise, the material/ equipment is not in conformity with the specifications, the same shall be rejected by the Employer or his duly authorized representative and notification to this effect will be issued to the contractor normally within 30 days from the date of receipt of the material at the Works /Site/Office. The contractor shall arrange removal of the rejected items within 15 days from the date of notification. In the event, the contractor fails to lift the materials within the said 15 days, the Employer shall be at liberty to dispose off such rejected items in any manner as he may think fit. All expenses shall be recoverable from the contractor.
- 6.1.4. The Employer's right to inspect, test and, where necessary, reject the Goods after the arrival at Site shall in no way be limited or waived by reason of the Goods

having previously been inspected, tested and passed by the Employer or its Representative prior to the Goods shipment.

6.1.5. The Employer reserves the right to get the components / systems checked from any Govt. approved laboratory / test centre at any time during the contract and the cost of the same shall be borne by the Contractor.

6.1.6. Nothing in GCC Clause 7 shall in any way release the Contractor from any warranty or other obligations under this Contract.

#### **6.1.7. Manuals and Drawings**

6.1.7.1. Before the Goods and Services are taken over by the Employer, the Contractor shall supply operation and maintenance manuals together with drawings of the goods and equipment. These shall be in such detail as will enable the Employer to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.

6.1.7.2. The manuals and drawings shall be in the English language and in such form and numbers as stated in the contract.

6.1.7.3. Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purpose of taking over until such manuals and drawings have been supplied to the Employer.

6.1.7.4. It shall be the obligation of the Contractor to train and familiarise the designated person by the Employer in regard to the operation manual and drawings.

#### **6.2. Inspection of Works**

6.2.1. The Engineer-in-Charge and / or its Representatives will have full power and authority to inspect the Work at any time wherever in progress either on the Site or at the Contractor's premises/workshops wherever situated, premises/ workshops of any person, firm or corporation where Work in connection with the Contract may be in hand or where materials are being or are to be supplied, and the Contractor shall afford or procure for the Engineer-in-Charge every facility and assistance to carry out such inspection. The Contractor shall, at all time during the usual working hours and at all other time at which reasonable notice of the intention of the Engineer-in-Charge or his representative to visit the Work shall have been given to the Contractor, either himself be present or receive orders and instructions, or have a responsible agent duly accredited in writing, present for the purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself. The Contractor shall give not less than seven days' notice in writing to the Engineer-in-Charge before covering up or otherwise placing beyond reach of inspection and measurement of any work in order that the same may be inspected and measured. In the event of breach of

above the same shall be uncovered at Contractor's expense for carrying out such measurement or inspection.

- 6.2.2. No material shall be dispatched from the Contractor's stores before obtaining the approval in writing of the Engineer-in-Charge. The Contractor is to provide at all time during the progress of the Work and the operation & maintenance period, proper means of access with ladders, gangways etc. and the necessary attendance to move and adopt as directed for inspection or measurements of the Work by the Engineer-in-Charge.
- 6.2.3. The Contractor shall make available to the Engineer-in-Charge free of cost all necessary instruments and assistance in checking or setting out of Work and in the checking of any Work made by the Contractor for the purpose of setting out and taking measurements of Work.

## **7. Packing**

- 7.1. The Contractor shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling Works at all points in transit.
- 7.2. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Employer.

## **8. Delivery and Documents**

- 8.1. Delivery of the Goods shall be made by the Contractor in accordance with the terms specified by the Employer at the project site to the Representative as nominated by Employer for each Site. The details of shipping and/or other documents to be furnished by the Contractor are specified in SCC.

## **9. Void**

## **10. Transportation, Demurrage Wharfage, Etc.**

- 10.1. Contractor is required under the Contract to transport the Goods to place of destination defined as Site. Transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Contractor, and the related cost shall be included in the Contract Price.

- 10.2. All demurrage, wharfage and other expenses incurred due to delayed clearance of the material or any other reason shall be on the account of Contractor.

#### **11. Materials to be supplied by Contractor:**

- 11.1. The Contractor shall procure and provide within the Contract price the whole of the materials required for the construction including steels, cement and other building materials, tools, tackles, construction plant and equipment for the completion and maintenance of the Work and shall make his own arrangement for procuring such materials and for the transport thereof. The Employer may give necessary recommendation to the respective authority if so desired by the Contractor but assumes no further responsibility of any nature. The Employer will insist on the procurement of materials which bear ISI stamp and/or which are supplied by reputed suppliers.
- 11.2. The Contractor shall properly store all materials either issued to him or brought by him to the Site to prevent damages due to rain, wind, direct exposure to sun, etc. as also from theft, pilferage, etc. for proper and speedy execution of his works. The Contractor shall maintain sufficient stocks of all materials required by him. Any loss of material on the above part shall be accrue to the Contractor.

#### **12. Void**

#### **13. Warranty**

- 13.1. The Contractor warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Employer's Specifications) or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 13.2. The Contractor shall, in addition, comply with the performance and/or guarantees specified under the Contract. If for reasons attributable to the Contractor, these guarantees are not attained in whole or in part, the Contractor shall:
- 13.2.1. make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC Clause 2; OR
- 13.2.2. pay liquidated damages to the Employer with respect to the failure to meet the contractual guarantees.
- 13.3. The Employer shall notify the Contractor in writing of any claims arising under this warranty period specified in technical specifications(Section-VI).



- 13.4. Upon receipt of such notice, the Contractor shall, within the period of 15 days and with all reasonable speed, repair or replace the defective Goods or parts thereof, free of cost at the ultimate destination. The Contractor shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Employer for the replaced parts/goods thereafter. In the event of any correction of defects or replacement of defective material during the Warranty period, the Warranty for the corrected or replaced material shall be extended to a further period.
- 13.5. If the Contractor, having been notified, fails to remedy the defect(s) within 15 days, the Employer may proceed to take such remedial action as may be necessary, at the Contractor's risk and expense and without prejudice to any other rights which the Employer may have against the Contractor under the Contract. The performance guarantee and liquidated damages shall be entitled to be recovered without prejudice to other rights of the Employer.

#### **14. Payment**

- 14.1. The method and conditions of payment to be made to the Contractor under this Contract shall be as specified in the SCC and Section-IV.
- 14.2. The Contractor's request(s) for payment shall be made to the Employer in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed and by documents, submitted pursuant to GCC Clause 8, and upon fulfilment of other obligations stipulated in the contract.
- 14.3. Payments shall be made promptly by the Employer but in no case later than Thirty (30) days after submission of the invoice in acceptable form by the Contractor.
- 14.4. Payment shall be made in Indian Rupees.
- 14.5. In the event of excess release of funds to Contractor, Employer shall demand and recover from Contractor such excess disbursements and Contractor would be liable to refund the excess disbursements within a period of 10 days of ascertainment of Final amount.
- 14.6. Income Tax & any other taxes as applicable shall be deducted at source from all the payments made to the contractors.

#### **15. Prices**

Price mentioned in the Notification of Award shall be firm and not subject to escalations till the execution of the complete order and its subsequent amendments accepted by the contractor, even though the completion / execution

of the order may take longer time than the delivery period specified and accepted in the Notification of Award.

#### **16. Abnormal Rates:**

- 16.1. The Bidder is expected to quote rate for each item after careful analysis of cost involved for the performance of the completed item considering all specifications and Conditions of Contract. This will avoid loss of profit or gain in case of curtailment or change of specification for any item. In case it is noticed that the rates quoted by the Bidder for any item are unusually high or unusually low, it will be sufficient cause for the rejection of the Bid unless the Employer is convinced about the reasonableness after scrutiny of the analysis for such rate(s) to be furnished by the Bidder (on demand).

#### **17. Contract Amendments**

- 17.1. No variation in or modification of the terms of the Contract shall be accepted except by amendment issued by Employer.

#### **18. Assignment**

- 18.1. The Contractor shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Employer's prior written consent.

#### **19. Time of Performance**

- 19.1. The Work covered by this Contract shall be completed in stages on or before the dates as mentioned in the Time period for Completion of Work as defined in SCC Clause 11. The Contractor should bear in mind that time is the essence of this agreement.
- 19.2. The Contractor shall submit a detailed PERT network /Bar chart consisting of adequate number of activities covering various key phases of the Work such as design, procurement, manufacturing, shipment and field erection activities within fifteen (15) days from the date of signing of the Contract form. This network shall also indicate the interface Works to be provided by the Employer and the dates by which such Works are needed.
- 19.3. Contractor shall discuss the PERT network/Bar chart so submitted with the Engineer-in-Charge and the agreed network which may be in the form as submitted with the Engineer-in-Charge or in revised form in line with the outcome of discussions shall form part of the Contract. During the performance of the Contract, if in the opinion of the Engineer-in-Charge proper progress is not maintained, suitable changes shall be made in the Contractor's operation to ensure proper progress. The above PERT network/Bar chart shall be reviewed periodically and reports shall be submitted by the Contractor as directed by Engineer-in-Charge.

## **20. Delays in the Contractor's Performance**

- 20.1. Delivery of the Goods and performance of the Services shall be made by the Contractor in accordance with the time schedule specified by the Employer in the Bid Document.
- 20.2. If at any time during performance of the Contract, the Contractor or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Contractor shall promptly notify the Employer in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Contractor's notice, the Employer shall evaluate the situation and may, at its discretion, extend the Contractor's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 20.3. Delay by the Contractor in the performance of its delivery obligations shall render the Contractor liable to the imposition of liquidated damages pursuant to GCC Clause 21, unless an extension of time is agreed upon pursuant to GCC Clause 20.2 without the application of liquidated damages.

## **21. Liquidated Damages**

- 21.1. If the Contractor fails to deliver any or all of the Goods and to complete the Work within the period(s) specified in the Contract, the Employer shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5% of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of 10% of the Contract Price. Once the maximum is reached, the Employer may consider termination of the Contract pursuant to GCC Clause 22.

## **22. Termination for Default**

- 22.1. The Employer may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Contractor, terminate the Contract in whole or part:
  - 22.1.1. if the Contractor fails to deliver any or all of the Goods and complete the Work within the period(s) specified in the Contract, or within any extension thereof granted by the Employer pursuant to GCC Clause 20; or
  - 22.1.2. if the Contractor fails to perform any other obligation(s)/duties under the Contract.
  - 22.1.3. If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

- 22.2. In the event the Employer terminates the Contract in whole or in part, pursuant to GCC Clause 21.1, the Employer may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Contractor shall be liable to the Employer for any excess costs for such similar Goods or Services. However, the Contractor shall continue the performance of the Contract to the extent not terminated.

### **23. Contractor remains liable to pay compensation if action not taken**

- 23.1. In any case in which any of the powers conferred upon the Engineer-in-Charge by any of the Clause of Contract thereof shall have become exercisable and the same had not been exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any further case of default by the Contractor for which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his Contract Performance Security, and the liability of the Contractor for past and future compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force the power under above Sub-Clauses vested in him under the preceding clause he may, if he so desired, take possession of all or any tools, and plants, materials and stores in or upon the works or the site thereof belonging to the Contractor or procured by him and intended to be used for the execution of the Work or any part thereof paying or allowing for the same in account at the Contract rates or in case of these not being applicable at current market rates to be certified by the Engineer-in-Charge whose certificate thereof shall be final, otherwise the Engineer-in-Charge may give notice in writing to the Contractor or his clerk of the works, foreman or other Authorized agent, requiring him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice), and in the event of the Contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the Contractor's expense or sell them by auction or private sale on account of the Contractor and at his risk in all respects without any further notice as to the date, time or place of sale and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the Contractor.

### **24. Discrepancies between instructions:**

- 24.1. Should any discrepancy occur between the various instructions furnished to the Contractor, his agent or staff or any doubt arises as to the meaning of any such instructions or should there be any misunderstanding between the Contractor's staff and the Engineer-in-Charge's staff, the Contractor shall refer the matter immediately in writing to the Engineer-in-Charge whose decision thereon shall be final and conclusive and no claim for losses alleged to have been caused by such discrepancies between instructions, doubts, or misunderstanding shall in any event be admissible.

## **25. Action where no specification is issued:**

- 25.1. In case of any class of Work for which there is no Specification supplied by the Employer as mentioned in the Bid Documents, such Work shall be carried out in accordance with Indian Standard Specifications and if the Indian Standard Specifications do not cover the same, the Work should be carried out as per standard Engineering Practice subject to the approval of the Engineer-in-Charge.

## **26. Force Majeure**

- 26.1. Notwithstanding the provisions of GCC Clauses 20, 21, 22, the Contractor shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 26.2. For purpose of this clause, "Force majeure" means an event beyond the control of the Contractor or its sub-contractors and not involving the Contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes etc. Whether a "Force majeure" situation exists or not, shall be decided by Employer and its decision shall be final and binding on the Contractor and all other concerned.
- 26.3. In the event that the Contractor is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond six months, Employer has the right to terminate the contract in which case, the contractual guarantees and warranties shall be refunded to him.
- 26.4. If a force majeure situation arises, the Contractor shall notify Employer in writing promptly, not later than 14 days from the date such situation arises. The Contractor shall notify Employer not later than 3 days of cessation of force majeure conditions. After examining the cases, Employer shall decide and grant suitable additional time for the completion of the Work, if required.

## **27. Work in monsoon and dewatering:**

- 27.1. Unless otherwise specified elsewhere in the Bid, the execution of the Work may entail working in the monsoon also. The Contractor must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No extra rate will be considered for such Work in monsoon.
- 27.2. During monsoon and other period, it shall be the responsibility of the Contractor to keep the construction work site free from water at his own cost.

## **28. Termination for Insolvency**

- 28.1. The Employer may at any time terminate the Contract by giving written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Employer.

## **29. Termination for Convenience**

- 29.1. The Employer, by written notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Employer's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective.
- 29.2. The Goods that are complete and ready for shipment within 15 days after the Contractor's receipt of notice of termination shall be accepted by the Employer at the Contract terms and prices. For the remaining Works, the Employer may elect:
- 29.2.1. to have any portion completed and delivered at the Contract terms and prices; and/or
- 29.2.2. to cancel the remainder and pay to the Contractor an agreed amount for partially completed Goods and for materials and parts previously procured and Services rendered by the Contractor.

## **30. Award Criteria**

Subject to ITB Clause 24 and GCC Clause 31, the Employer will award the Composite Contract on turnkey basis to the successful bidder whose Bid has been determined to be substantially responsive and has been determined as the lowest evaluated Bid as per clause 9 of Section-II (ITB).

## **31. Notification of Award**

Prior to the expiration of the period of Bid validity, the Employer will issue Notification of Award of Contract to the Successful Bidder in writing by registered letter or by fax/Email, to be confirmed in writing by registered letter, that its Bid has been accepted.

- 31.1. The Notification of award will constitute the formation of the Contract and the awardee would be required to acknowledge the same and send the Duplicate copy, duly stamped and signed by the Authorized signatory.
- 31.2. Within 21 days of receipt of the Contract Form, the successful Bidder shall sign and date the Contract and return it to the Employer.

### **32. Contractor Integrity:**

- 32.1. The Contractor is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state-of-the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.

### **33. Contractor's Obligations:**

- 33.1. The Contractor is obliged to work closely with the Employer's staff, act within its own authority and abide by directives issued by the Employer /Representative. The Contractor will abide by the job safety measures prevalent in India and will free the Employer from all demands or responsibilities arising from accidents or loss of life the cause of which is the Contractor's negligence. The Contractor will pay all indemnities arising from such incidents and will not hold the Employer responsible or obligated.
- 33.2. The Contractor is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanours. The Contractor will treat as confidential all data and information about the Employer, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Employer.

### **34. Payment if the contract is terminated**

- 34.1. Notwithstanding anything herein above the Contract shall be terminated as per Bid pursuant to Clause no. 20, 22 & 29 of GCC, the Contractor shall be paid by the Employer in so far as such amounts or items as not have already been covered by payments of amounts made to the Contractor for the Work executed and accepted by Engineer-in-Charge prior to the date of termination at the rates and prices provided for in the Contract.
- 34.2. The Contractor will be further required to transfer the title and provide the following in the manner and as directed by the Employer.
- a) Any and all completed Works.
  - b) Such partially completed Work including drawings, information and Contract rights as the Contractor has specially performed, produced or acquired for the performance of the Contractor.

### **35. Suspension of Works:**

- 35.1. The Contractor shall, if ordered in writing by the Engineer-in-Charge, or his representative, temporarily suspend the Works or any part thereof for such written order, proceed with the Work therein ordered to be suspended until, he shall have

received a written order to proceed therewith. The Contractor shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of the Works aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the Works as aforesaid will be granted to the Contractor should he apply for the same provided that the suspension was not consequent to any default or failure on the part of the Contractor.

### **36. No waiver of rights:**

- 36.1. Neither the inspection by the Employer or any of their officials, employees, or agents nor any order by the Employer for payment of money or any payment for or acceptance of the whole or any part of the Work by the Employer nor any extension of time, nor any possession taken by Employer shall operate as a waiver of any provision of the Contract, or of any power herein reserved to the Employer, or any right to damages herein provided, nor shall any waiver of any breach in the Contract be held to be a waiver of any other subsequent breach.

### **37. Certificate not to affect right of employer and liability of contractor :**

- 37.1. No interim payment certificate(s) issued by the Engineer-in-Charge of the Employer, nor any sum paid on account by the Employer, nor any extension of time for execution of the Work granted by Employer shall affect or prejudice the rights of the Employer against the Contractor or relieve the Contractor of his obligations for the due performance of the Contract, or be interpreted as approval of the Work done or of the equipment supplied and no certificate shall create liability for the Employer to pay for alterations, amendments, variations or additional Works not ordered, in writing, by Employer or discharge the liability of the Contractor for the payment of damages whether due, ascertained, or certified or not or any sum against the payment of which he is bound to indemnify the Employer.

### **38. Settlement of Disputes**

- 38.1. If any dispute of any kind whatsoever shall arise between the Employer and Contractor in connection with or arising out of the contract including without prejudice to the generality of the foregoing, any question regarding the existence, validity or termination, whether the parties shall seek to resolve any such dispute or difference by mutual consultation.
- 38.2. If the parties fail to resolve, such a dispute or difference by mutual consent, within 45 days of its arising, then the dispute shall be referred by either party by giving notice to the other party of its intention to commence arbitration as hereafter provided, as to the matter in dispute, & no arbitration may be commenced unless such notice is given. Any dispute in respect of which a notice of intention to commence arbitration has been given in accordance to with GCC Sub Clause 38.2, shall be finally settled by arbitration.



**38.3. In case the Contractor is a Public Sector Enterprise or a Government Department**

38.3.1. In case the Contractor is a Public Sector Enterprise or a Government Department, the dispute shall be referred for resolution in Permanent Machinery for Arbitration (PMA) of the Department of Public Enterprise, Government of India. Such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

**38.4. In case the Contractor is not a Public Sector Enterprise or a Government Department.**

38.4.1. In the event of any question dispute or difference whatsoever arising under this contract or in connection therewith including any question relating to existence, meaning and interpretation of this contract or any alleged breach thereof, the same shall be referred to the Sole Arbitrator, the MD of the SECI/Employer or to a person appointed by him for the purpose. The arbitration shall be conducted in accordance with the provision of the Indian Arbitration and Conciliation Act, 1996.

38.4.2. It will be no objection that the Arbitrator is interested persons and/or that he had to deal with the matter to which the contract relates and/ or in the course of his duties he has expressed any view on any matter in dispute or difference. The award of arbitrator shall be final and binding.

38.4.3. The Arbitrator may from the time to time, with the consent of all parties extend the time in making the award.

38.4.4. The cost incidental to the arbitration shall be at the discretion of the Arbitrator. The arbitration shall be conducted at New Delhi.

38.4.5. Notwithstanding any dispute between the parties Supplier shall not be entitled to withhold, delay or defer his obligation under the contract and same shall be carried out strictly in accordance with the terms & conditions of the contract.

38.4.6. The arbitrator shall give his speaking or reasoned award with respect to the disputes referred to him by either of the parties.

- 38.4.7. If for any reason an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws as mentioned in GCC Clause 41(Applicable Law) and a substitute shall be appointed in the same manner as the original arbitrator.
- 38.4.8. Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue or arbitration shall be New Delhi.
- 38.5. Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless they otherwise agree.

### **39. Limitation of Liability**

- 39.1. Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to GCC Clause 4.5,
- 39.1.1. the Contractor shall not be liable to the Employer, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer; and
- 39.1.2. the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

### **40. Governing Language**

- 40.1. The contract shall be written in English language. Subject to GCC Clause 41, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

### **41. Applicable Law**

- 41.1. The Contract shall be interpreted in accordance with the laws of the Union of India.

### **42. Notices**

- 42.1. Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by email and confirmed in writing to the other Party's address specified in SCC.

- 42.2. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### **43. Taxes and Duties**

- 43.1. Except as otherwise specifically provided in the Contract, the Contractor shall bear & pay all taxes, duties, levies and charges including entry tax, service tax if applicable in connection with the various supplies/ raw materials required to complete the contract. Any taxes & duties on inland transportation, insurance & other Incidental Services shall be to the Contractor's account and no separate claim in this regard will be entertained by the Employer
- 43.2. Notwithstanding the provisions stated in GCC Clause 43.1 above, the Employer shall reimburse to Contractor all applicable taxes & duties on the contract value indicated in Price Bid.
- 43.3. The rates quoted by the bidder for all materials, required to be purchased for the satisfactory performance of this contract, shall be deemed to be inclusive of all duties, taxes, octroi, royalties, rentals etc. .
- 43.4. If any discrepancy is observed regarding taxes & duties in the price bid then SECI/Employer shall have the rights to remove the discrepancy and decision of SECI / Employer will be final.

### **44. Design and Engineering**

#### **44.1. Specifications and Drawings**

The Contractor shall execute the basic and detailed design and the Engineering work in compliance with the provisions of the Contract, or where not so specified, in accordance with good Engineering practice.

The Contractor shall be responsible for any discrepancies, errors or omissions in the specifications, drawings and other technical documents that it has prepared, whether such specifications, drawings and other documents have been approved by the Engineer-in-Charge or not, provided that such discrepancies, errors or omissions are not because of inaccurate information furnished in writing to the contractor by or on behalf of the Employer.

Any information, details etc. called for the specification and not shown in the drawings and vice-versa shall have the same effect and meaning as if called for and shown both in the specification and drawings. In case of conflict between the specification and drawings, the decision of Employer or his duly authorized representative shall be final and binding.

#### **44.2. Codes and Standards**

Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied after approval by the Employer.

#### **45. void**

#### **46. Insurance**

Contractor shall at its own expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, from commencement to commissioning and 20 years O&M from date of commissioning. Thereafter, all necessary insurance for life and property against all risks including third party liability.

#### **47. Other Conditions**

47.1. The Contractor shall not transfer, assign or sublet the Work under this contract or any substantial part thereof to any other party without the prior consent of Employer in writing.

47.2. The Contractor or its subcontractors shall not display the photographs of the Work and not take advantage through publicity of the Work without written permission of Employer.

47.3. The Contractor or its subcontractors shall not make any other use of any of the documents or information of this contract, except for the purposes of performing the contract.

#### **47.4. Successors and Assigns:**

In case the Employer or Contractor undergoes any merger or amalgamation or a scheme of arrangement or similar re-organization by a order / decree of court & this contract is assigned to any entity (ies) partly or wholly, the contract shall be binding mutatis mutandis upon the successor entities & shall continue to remain valid with respect to obligation of the successor entities .

47.5. The majority and controlling shareholding in the Contractor selected shall be maintained with the promoter shareholders of the Contractor during the currency of contract.

#### **47.6. Severability:**

It is stated that each paragraph, clause, sub-clause, schedule or annexure of this contract shall be deemed severable & in the event of the unenforceability of any paragraph, clause sub-clause, schedule or the remaining part of the paragraph,

clause, sub-clause, schedule annexure & rest of the contract shall continue to be in full force & effect.

**47.7. Counterparts:**

This contract may be executed in one or more counterparts, each of which shall be deemed an original & all of which collectively shall be deemed one of the same instrument.

**47.8. Rights & remedies under the contract only for the parties:**

This contract is not intended & shall not be construed to confer on any person other than the Employer & Contractor hereto, any rights and / or remedies herein.

**47.9. Road permits:**

Arranging for any road permit, wherever required to deliver the goods to project site shall be the sole responsibility of Contractor.

**48. Statutory Acts**

48.1. All legal formalities/clearances are to be obtained prior to commencement of work by the Contractor regarding the execution of the said Work.

48.2. The Contractor shall comply with the all the Acts & rules and regulations, laws and by-laws framed by State/ Central Government/ organization. SECI shall have no liabilities in this regard.

**49. Local Conditions and Bidder to Inform Himself**

49.1. The intending Bidders shall be deemed to have visited the Site and familiarized submitting the Bid. Non-familiarity with the Site conditions will not be considered a reason either for extra claims or for not carrying out the Works in strict conformity with the Technical Specifications or for any delay in performance.

49.2. The bidder shall be deemed to have satisfied himself about the detailed job content, the conditions and circumstances affecting the contract prices and the possibility of executing the works as shown and described in the tender. The bidder shall be deemed to have inspected and examined the site, its surrounding and have satisfied himself as to the form and nature of the site, the accommodation he may require for his labour and general labour position at site and to have based his prices taking into account the risk, contingencies and other circumstances, which may influence the execution of the work.

**50. Compliance of Regulations**

50.1. The contractor shall warrant that all goods and/ or services covered by this Notification of Award shall have been produced, sold, dispatched, delivered, tested and commissioned in strict compliance with all applicable laws, regulations Including Industries (Development & Regulations) Act, 1951 and any amendments

there under, labour agreements, working conditions and technical codes and requirements as applicable from time to time.

- 50.2. The contractor should execute and deliver such documents as may be needed by the Employer in evidence of compliance of all laws, rules and regulations required for reference. Any liability arising out of contravention of any of the laws on executing this order shall be the sole responsibility of the contractor and the Employer shall not be responsible in any manner whatsoever.

## **51. Contractor Liability**

Contractor hereby accepts full responsibility and indemnifies the Employer and shall hold the Employer harmless from all acts of omissions and commissions on the part of the contractor, his agents, his sub contractors and employees in execution of the work. The contractor also agrees to defend and hereby undertakes to indemnify the Employer and also hold him harmless from any and all claims for injury to or death of any and all persons including but not limited to employees and for damage to the property arising out of or in connection with the performance of the work under the Notification of Award.

## **52. Contractual Responsibilities**

- 52.1. SECI/ Employer will be the legal owner of Mini grid SPV plant(s) throughout the Contract period and Contractor shall have no rights and claims on assets of mini grid power plant(s).
- 52.2. The bidder shall ensure compliance of all statutory and mandatory requirements, including all labour law requirements. The bidder shall also keep Employer indemnified against any liabilities that may arise on this account.
- 52.3. The bidder shall be further responsible for observance of all acts and rules under Factory Act like minimum wages act, EPF act, ESI or any other act which may become applicable to bidder time to time. The bidder has to submit copies of all insurance covers, EPF registration and ESI registration before start of work.
- 52.4. The present tender shall be governed and be subjected to the applicable laws of India. The Courts of New Delhi shall have execution jurisdiction in all matters arising under this contract.
- 52.5. The contract shall provide all necessary superintendence during the execution of the work.
- 52.6. The bidder shall have no claims to compensation for any loss sustained by him by reason of purchased or produced by advance on account of with view to the execution of the work for the performance of the contract.
- 52.7. Bidder shall be fully responsible for any injury which the bidder or his workmen or any other person may sustain during the performance of the contract.
- 52.8. The bidder shall, in all dealings with its labour for the time being employed on or in connection with the contract, pay due regards to all recognized festivals, official holidays and all Regulations and rules framed there under appertaining to the employment of labour

- 52.9. The bidder shall provide all necessary superintendence during the execution of contract. The bidder shall depute a competent authorized qualified representative for execution of contract who shall be available round the clock in the premises for communication during any time. The representative shall represent the bidder in his absence and all direction given to him shall be binding on the bidder.
- 52.10. All traveling expenses of bidder's personnel shall be borne by him.
- 52.11. Loading, unloading of the material and its safe storage till the completion of the project shall be in the scope of bidder.
- 52.12. The bidder shall engage permanent / regular employees of his establishment for the job and shall be fully responsible for their monthly wages, provident fund liabilities as per Government of Haryana and Govt. of India, rules, enforce from time to time all the necessary records have to be maintained by the bidder at his own, as per the labour law and shall have to be produced on demand by the concerned authorities.
- 52.13. All the safety appliances, if required to carry out the job, are to be arranged by the bidder for his staff.

### **53. Indemnity Damages and Insurance**

- 53.1. The bidder shall indemnify and make harmless the owner or the Engineer, their agents or employees from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him or the owner by reason or any act or commission of the said bidder, his agents or employees in the execution of the work. An indemnity bond to this effect will be submitted by the bidder before start of work (The format for Indemnity Bond shall be furnished later).
- 53.2. The bidder shall also indemnify the owner against payment under the workman's compensation act., which the owner may suffer, sustain or be in any way subjected to be reason of injuries to the Bidder's or the Owner's employees, or other person or damage to the property of any person or corporation arising out of or resulting from the performance of the work of this contract.
- 53.3. Workman's compensation policy shall contain a waiver of the insurer's right under the workman's compensation law to recover from the owner compensations and other expenses paid for any injury to or death of any employee or the bidder while performing the work covered by the contract.
- 53.4. The bidder shall pay all costs and maintain throughout the period of the contract, public liability and property damage liability insurance with the following coverage:
- 53.5. In addition, the bidder is fully responsible for all the equipment and material for damage or loss from any cause during transition and/or while in custody of Bidder's at his works site until his complete work is formally accepted by the owner.
- 53.6. The bidder must submit to the engineer-in charge a certificate in duplicate, from the Insurance Company covering each type of insurance the bidder is required to take and each certificate shall state that no policy will be cancelled without the

written consent of engineer-in charge. The bidder shall name the owner in each policy in addition to himself as the insured.

#### **54. Recoveries**

Where any claim against the bidder for payment of a sum of money arises out of or under the contract, Employer shall be entitled to recover such sum by appropriating, in parts of such security. In the event of the security being insufficient, the balance of the total sum recoverable, as the case may be shall be deducted from any sum then due, or which at any time thereafter become due from the bidder under this or any other contract with Employer should this sum be not sufficient to recover the full amount recoverable, the bidder shall pay to Employer on demand the balance remaining dues.

#### **55. Discipline**

- 55.1. The bidder shall on instruction of Engineer-In-Charge charge immediately remove from work any person employed who may misbehave or cause any nuisance, of any type or otherwise in the opinion of the Engineer is not a fit person to be retained on the work and such person shall not be employed again or allowed on the work without prior written permission of the Engineer. All the rules and regulations prevailing and applicable from time to time at the installation or as directed by Employer will be strictly adhered to by the bidder.
- 55.2. The bidder shall, at all time during the progress of the contract, use its best endeavors to prevent any unlawful, riotous or disorderly behavior or conduct by or amongst its employees and the labour.

#### **56. Safety Measures**

- 56.1. The safety of the Bidder's staff is the responsibility of the Bidder itself. The Bidder shall provide at his own cost all safety equipments such as safety helmet, shoes, gumboots, dust respirator, hand gloves etc. as per the work requirement and as felt necessary by the Engineer-In-Charge. The site Engineer of Employer/representative for Bidder shall take adequate steps to ensure the proper use of the safety equipment by Bidder's staff at all times failing which for clause No. 53.14 penalty will be applicable on Bidder.
- 56.2. Persons working at height should use ISI certified safety belt/fall arresters. If required fall arresting net must be provided for protection.
- 56.3. Uses of matchbox, lighters and smoking or other such act, which may cause fire, are strictly prohibited. In the power plant all hot works such as welding, gas cutting etc. which may cause fire, shall be carried out with proper care, if required the work permit may be obtained.
- 56.4. Flash back spark arrestors are to be installed in both the gas cylinders used for gas cutting/welding at both ends of the pipes.
- 56.5. The Bidder shall comply all the labour laws governing the workmen engaged by them, directly or through a sub-bidder and implementing the provision of PF Act, Gratuity Act, Minimum wages Act, W.C. Act, Payment of Wages Act, Rules &



Regulations framed there under and also provision of any other act as may be applicable for operation or carrying out of the said contract.

- 56.6. The Bidder shall get insured his workers under ESI or workmen compensation act, 1923 and shall indemnify for any such claim, which may be made under the act in respect of any accident or injury sustained to any workmen in the employment.
- 56.7. All works should be executed in accordance with the requirement of the Factories Act and rules, Electricity Act and other applicable act and rules or codes of the company. The bidder shall comply with all rules and regulations of the local authorities in performance of his work.
- 56.8. The Bidder shall use only tested T&P, lifting tackles, pressure vessels (Compressors etc.) and other machines, tested by authorized/competent persons/company. The Bidder shall submit the copy of such test certificates on demand.
- 56.9. All cases of serious accident to the Bidder's staff or any one of them however caused and whenever on the work site the Bidder shall immediately report to the Engineer-In-charge and other statutory authorities and shall make adequate arrangements for rendering all possible aid to the victims of the accident.
- 56.10. The Bidder shall produce certificate of physical fitness of all his employees and shall employ only fit and healthy persons.
- 56.11. All electrical installations and portable equipment should be earthed properly. When workers employed in electrical installation, which are readily energized-wearing apparel, such as hand gloves & boots as may be necessary shall be provided. The workers should not wear any ring, watches etc., which are good conductor of electricity when working on live board/equipment.
- 56.12. For The electrical work Bidder shall have valid "Electrical Bidder License" issued from Govt. of Haryanas and shall deploy the "License holder" supervisor at site.
- 56.13. In case of continued violation of these safety instructions and safety codes and applicable Act & Rules, which are necessary to ensure safety of men, material, environment, and equipment or Bidder's willful failure to comply with the instructions of Engineer in charge/Safety Engineer Employer can impose a penalty Rs.500/- (Rs. Five Hundred Only) for each instance of noncompliance subject to maximum 5% of the total contract value. Also Employer may provide the safety equipment to the Bidder's employees and the cost of which will be recovered from the bidder's bill.

## **SECTION IV: SPECIAL CONDITIONS OF CONTRACT**

## **SECTION IV:SPECIAL CONDITIONS OF CONTRACT (SCC)**

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions of special conditions of contract shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses.

### **1. Definitions (Section I)**

### **2. Inspection and Tests (GCC Clause 6)**

### **3. Delivery and Documents (GCC Clause 8)**

Upon delivery of the Goods, the Contractor shall notify the Employer and the insurance company by fax or by writing the full details of the shipment including contact number, railway / Road transporters receipt number and date, description of goods, quantity, name of the consignee etc.

The Contractor shall mail the following documents to the Employer with a copy to the insurance company:

- a. Four Copies of the Contractor's invoice showing contract number, goods' description, quantity, unit price, total amount;
- b. Railway receipt/Transporter receipt/acknowledgment of receipt of goods;
- c. Four Copies of packing list identifying the contents of each package;
- d. Insurance Certificate;
- e. Manufacturer's/Supplier's warranty certificate;
- f. Inspection Certificate issued by the nominated inspection agency, and the Contractor's factory inspection report; and

The above documents shall be received by the Employer and the Consignee before arrival of the Goods (Consignee can be the representative of Contractor or the Contractor himself).

### **4. Incidental Services**

- 4.1. The Contractor may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- 4.2.furnishing of tools spares required for assembly and/or maintenance of the supplied Goods;
- 4.3.furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- 4.4.performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Contractor of any warranty obligations and scope of services under this Contract; and
- 4.5.Training of the Employer's personnel and one or two persons from the beneficiaries groups are imparted training, at the Contractor's plant and/or on-site, in assembly, Operation & maintenance and/or repair of the supplied Goods.
- 4.6.Installation of 3 Nos Permanent Display Boards (materials shall be of GI sheet) of approximate size 1.25m X 0.75m at various places as directed by Employer and providing sufficient No. of Hand bills & banners etc.,.

## **5. Payment Disbursement (GCC Clause 14)**

- 5.1 **SECI will only provide Eighty Percent (80%) of the total Project Cost as quoted by the Successful Bidder in Price Bid. The remaining Twenty Percent (20%) funds have to be arranged by the successful bidder/ contractor on their own.**
- 5.2 The project cost quoted by the bidder in the Price Bid shall be considered as the Project Cost for this purpose. Total liability of SECI under this contract shall be limited to release of 80% payment on the project cost quoted by the Bidder in the Price Bid.
- 5.3 **The disbursal of 80% of total project cost ie Rs "X" shall be as follows:**

**For Example:** if Rs. 100 is the project cost quoted by the successful bidder then Rs 80 shall be paid by SECI/Employer and remaining Rs 20 shall be arranged by the Successful bidder/Contractor. Further, Rs 80 shall be disbursed as follows:

- Rs. 8 as advance against bank guarantee with an annual interest of 9% per annum to be paid by the bidder.
- Rs. 32 on receipt of all major equipment such as (Modules, Inverters, Structures, Batteries, cables, wires, Street lights & poles, etc.) at site and duly certified Lorry Receipt (LR copy) by authorized representative of Contractor/Successful bidder.
- Rs. 40 on successful completion/commissioning and issuance of Commissioning certificate and release of Bank Guarantee towards advance.

5.3.1 Ten Percent of the Rs “X” as Initial Advance Payment with an annual interest of 9% per annum on:

5.3.1.1 Submission of PBG of 10 % of total project cost in the form of Demand Draft(DD) or unconditional Bank Guarantee(s) towards Contract Performance Security(s) and initially valid upto 5.5 years from the date of Notification of Award. The proforma of Bank Guarantee(BG) is enclosed in Section-VIII Format-2 and,

5.3.1.2 Submission of an unconditional Advance Bank Guarantee(BG) covering the advance amount which shall be initially kept valid up to (Sixty) 60 days beyond the schedule date for successful Completion of the Project & issuance of Commissioning certificates. However, in case of delay in completion of Project, the validity of this Bank Guarantee shall be extended by the period of such delay. Proforma of Bank Guarantee is enclosed in Section-VIII-Format-4

5.3.2 Forty percent of Rs “X” on receipt of all major equipment such as (Modules, Inverters/PCU, Structures, Batteries, cables, wires, Street lights & poles, etc.) at site and duly certified Lorry Receipt (LR copy) by authorized representative of Contractor/Successful bidder.

5.3.3 Fifty percent of Rs “X” on Completion of Work & issuance of completion / commissioning certificates and release of Bank Guarantee towards advance.

**Note:**

- a. The bank guarantees should be made from the list of bank as mentioned in Annexure-2 of the bid document.
- b. No interest shall be payable by the Employer for sum deposited as Advance Bank guarantee or any other amount due to the Contractor.

**6. Settlement of Disputes (GCC Clause 38)**

**7. Void**

**8. Notices (GCC Clause 42)**

For the purpose of all notices, the following shall be the address of the Employer and Contractor.

**Employer:**

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

**Contractor:** (To be filled in at the time of Contract signature)

.....

.....

**9. Right to use defective equipment:**

If after delivery, acceptance, Installation & Commissioning and within the guarantee /warranty and O&M period, the operation or use of the equipment proves to be unsatisfactory, the Employer shall have the right to continue to operate or use such system until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the operation.

**10. Spare Parts**

The Contractor shall make arrangement to maintain a sufficient stock of essential spares and consumables that may be required during maintenance /breakdown of the system to ensure proper maintenance of the system promptly.

**11. Time period for completion of project**

11.1. The entire Scope of Work shall be executed strictly as per the Time Schedule specified herein below.

11.1.1. The Design, Manufacturing, Supply, Installation, Testing & Commissioning of the aggregate capacity of 101 kW including transmission and distribution network and other related works as per the Scope of work specified in Clause 5 of Section-VI **shall be completed in 4 months from the date of Notification of Award.** However, Identification of Land by the contractor and submission of relevant documents like Lease deed / agreement from legal owner Land(s) shall be carried out within two(2) months from the date of Notification of Award which can be increased at the sole discretion of SECI but the total time of completion of projects(s) shall remain unaltered from its original 4 months schedule. Failure of non- compliance of same shall lead to forfeiture of Performance Bank Guarantee (PBG) / Performance Security.

11.2. The period of construction given in Time Schedule includes the time required for mobilisation as well as testing, rectifications if any, retesting and completion in all respects to the entire satisfaction of the Engineer-in-Charge.

11.3. A joint programme of execution of the Work will be prepared by the Engineer-in-Charge and Contractor based on priority requirement of this project. This programme will take into account the time of completion mentioned in Sub clause 11.1.1 above and the time allowed for the priority Works by the Engineer-in-Charge.

11.4. Monthly/Weekly construction programme will; be drawn up by the Engineer-in-Charge jointly with the Contractor, based on availability of Work fronts and the joint construction programme as per Sub Clause 11.2 above. The Contractor shall scrupulously adhere to these targets /programmes by deploying adequate personnel, construction tools and tackles and he shall also supply himself all materials of his scope of supply in good time to achieve the targets/programmes. In all matters concerning the extent of targets set out in the weekly and monthly programmes and the degree of achievements the decision of the Engineer-in-Charge will be final and binding on the Contractor.

## **12. Risk, Property and Transfer of Title**

12.1. Without affecting its rights to reject the Goods, the property (legal and beneficial) and title in the Goods passes to the Employer or its Representative on Delivery (unless payment, whether in whole or in part, for the Goods is made prior to Delivery, in which case title to the Goods shall pass to the Employer once payment has been made). The decision of Engineer-In-Charge in this case shall be final and binding.

## **13. Time period for Operation & Maintenance (O&M)**

### **13.1. Operation & Maintenance (O&M)**

13.1.1. The time period for O&M shall be 20 years from the date of Commissioning of project. Project cost for initial 5 years of O&M period is included in the total project cost quoted by the bidder in his price bid.

13.1.2. **Thereafter, Successful bidder / Contractor shall make the O&M self-sustainable by collecting money in the form of tariff from the beneficiary from the date of commissioning of Mini grid plant(s) in coordination with villagers or with Village Level Committee (VLC) members of whose appointment may be decided by the Contractor and inhabitants of that village. The SECI shall neither interfere and nor bear any responsibility for the arrangement of funds for the Operation & Maintenance of plant including repair and replacement of equipments.**

During the 20 years O&M period, Successful bidder shall ensure the implementation and Operation & Maintenance of Mini grid SPV plants which includes replacement of modules, inverter/PCU, batteries bank and control electronics, streetlight, meter, distribution line with poles, pole structure cables/wires transformer(if required) house hold connection, structures and other necessary equipments to ensure a smooth and efficient operation of Mini grid Solar PV plants for successful completion of 20 years O&M period. At the end of 20 years of O&M, Mini grid plant(s) may be handed over to VLC or Village level Entrepreneurs at sole discretion of SECI.

13.1.3. The Contact details (Name, Mobile number, Email, Address) to be declared to all the users/beneficiaries for repair and maintenance of the system during O&M.

13.1.4. The maintenance service provided shall ensure proper functioning of the Mini Grid SPV system as a whole. All preventive/routine maintenance and breakdown/corrective maintenance required for ensuring maximum uptime shall have to be provided by the Contractor. Accordingly, the Operation & Maintenance (O&M) shall have two distinct components as described below:

#### 13.1.4.1. Preventive/Routine Maintenance

Preventive & Routine Maintenance of all the components of the system shall be carried out by the Contractor as recommended by the manufacture/Supplier of the component/sub system but at least once in every two months. This shall include cleaning of module surface, maintenance of other equipment's or any other adjustment required by the system, checking of all electrical connections, wherever required or any other activity that may be required for proper functioning of the system.

#### 13.1.4.2. Breakdown/Corrective Maintenance:

Whenever a complaint is lodged by the user or from any of the villager, Contractor shall attend to the same within a reasonable period of time (4 hours). In case if the material or major component needs to be rectified/ replaced shall be corrected or replaced within a period not exceeding 3 (three) days from the date of complaint.

13.1.4.2.1. Adequately trained manpower for carrying out Operation & Maintenance of Mini grid SPV system.

13.1.5. Adequate spares for ensuring least down time of an individual system.

13.1.6. The records maintained during the O&M period shall be available from time to time to Employer.

13.1.7. The date of O&M maintenance period shall begin on the date of issue of commissioning certificate.

### 14. Maximum allowable project cost

The maximum allowable project cost for the **Mini grid SPV system is Rs. 300/- Per Wp.** Project cost should be inclusive of all taxes and duties and shall not exceed more than Rs.300/- Per Wp. The price bid with Project cost more than Rs.300/- Per Wp shall not be considered.



## **15. Incorporation of a project company**

- 15.1. In case the Bidder is a Bidding Company and wishes to incorporate a Project Company, in such a case Bidder if selected as a Successful Bidder shall incorporate a Project Company. Bidder shall be responsible to get all clearance required/obtained in the name of the Bidding Company transferred in the name of the Project Company.
- 15.2. The aggregate equity share holding of the Successful Bidder in the issued and paid up equity share capital of the Project Company shall not be less than fifty one percent (51%) up to a period of two(2) years from the date of commissioning of the entire Sanctioned Capacity of the Project Developer. The Successful Bidder may invest in the equity share capital of the Project Company through its Affiliate(s) or Parent Company or Ultimate Parent Company. If the Successful Bidder so invests, the Successful Bidder shall be liable to ensure that minimum equity holding/Lock in limits specified above are still maintained.

## **16. Debarred from participating In SECI Schemes / Min-Micro grid Tender / Cancellation of empanelment of the bidder**

- 16.1. SECI reserves the right to carry out the performance review of each Bidder from the time of submission of Bid onwards. In case it is observed that a bidder has not fulfilled its obligations in meeting the various timelines envisaged, in addition to the other provisions of the Bid, such Bidders including its affiliates/ group companies / Parent / Ultimate parent company may be debarred from participating in SECI's Mini/Micro grid tender or other schemes for a period as decided by the Competent Authority and/or may lead to cancellation of the empanelment.

## **SECTION V: CERTIFICATES AND PAYMENTS**

## **1. CERTIFICATES AND PAYMENTS**

### **1.1. Schedule of rates and payments:**

#### **i) Contractor's Remuneration**

The price to be paid by the Employer to Contractor for the whole of the Work to be done and for the performance of all the obligations undertaken by the Contractor under the Contract documents shall be ascertained by the application of the respective rates or Price Bid and payment to be made accordingly for the Work actually executed and approved by the Engineer-in-Charge.

#### **ii) Schedule of rates or Price Bid to be inclusive:**

The prices/rates quoted by the Contractor shall remain firm till the issue of Final Certificate and shall not be subject to escalation. Schedule of Rates shall be deemed to include and cover all costs, expenses and liabilities of every description and all risks of every kind to be taken in executing, completing and handing over the Work to the Employer or the Agency nominated for the purpose by the Employer. The Contractor shall be deemed to have known the nature, scope, magnitude and the extent of the Work and materials required though the Contract document may not fully and precisely furnish them. Bidders shall make such provision in the Schedule of Rates as he may consider necessary to cover the cost of such items of Work and materials as may be reasonable and necessary to complete the Work. The opinion of the Engineer-in-Charge as to the items of Work which are necessary and reasonable for completion of Work shall be final and binding on the Contractor, although the same may not be shown on or described specifically in Contract documents. Generality of this present provision shall not be deemed to cut down or limit in any way because in certain cases it may and in other cases it may not be expressly stated that the Contractor shall do or perform Work at his own cost or without addition of payment or without extra charge or words to the same effect or that it may be stated or not stated that the same are included in and covered by the Price Bid.

#### **iii) Price Bid To cover construction equipments, materials, Labour etc.:**

Without in any way limiting the provisions of the preceding sub-clause the Schedule of Rates or Price Bid shall be deemed to include and cover the cost of all construction equipment, temporary work (except as provided for herein), materials, labour, insurance, consumables, stores and appliances to be supplied by the Contractor and all other matters in connection with each item in the Schedule of Rates or Price Bid and the execution of the Work or any portion thereof finished, complete in every respect and maintained as shown or described

in the Contract documents or as may be ordered in writing during the continuance of the Contract.

iv) Price Bid to cover royalties, rents and claims:

The Price Bid (i.e., Value of Contract) shall be deemed to include and cover the cost of all royalties and fees for the articles and processes, protected by letters, patent or otherwise incorporated in or used in connection with the Work, also all royalties, rents and other payments in connection with obtaining materials of whatsoever kind for the Work and shall include an indemnity to the Employer which the Contractor hereby gives against all actions, proceedings, claims, damages, costs and expenses arising from the incorporation in or use on the Work of any such articles, processes or materials, octroi or other municipal or local Board Charges, if levied on materials, equipment or machineries to be brought to site for use on Work shall be borne by the Contractor.

v) Price Bid to cover Taxes and Duties:

All the taxes, duties and levies that are applicable during the execution of contract shall be deemed to be included by bidder in their offer. The Contractor shall obtain and pay for all permits or other privileges necessary to complete the Work.

vi) Price Bid to cover risks of delay:

The Price Bid shall be deemed to include and cover the risk of all possibilities of delay and interference with the Contractor's conduct of Work which occur from any causes including orders of the Employer in the exercise of his power and on account of extension of time granted due to various reasons and for all other possible or probable causes of delay.

**2. Procedure for measurement and billing of Work in progress:**

2.1.1. Billing procedure: Following procedures shall be adopted for billing of works executed by the Contractor.

2.1.1.1. Engineer-in-Charge shall pass the bills after carrying out the comprehensive checks in accordance with the terms and conditions of the Contracts, within 30 (Thirty) days of submission of the bills, complete in all respects and send the same to the Employer to effect payment to the Contractor.

2.1.1.2. Employer shall make all endeavor to make payments of undisputed amount of the bills submitted based on the joint measurements within 15 (Fifteen) days from the date of certification by the Engineer-in-Charge.

2.1.1.3. Measurements shall be recorded as per the methods of measurement spelt out in Employer Technical Specifications / Contract document. Engineer-in-Charge shall

be fully responsible for checking the measurements quantitatively and qualitatively as recorded in the Measurement Books/ Bills.

2.1.1.4. Dispute in mode of measurement:

2.1.1.5. In case of any dispute as to the mode of measurement not covered by the Contract to be adopted for any item of Work, mode of measurement as per latest Indian Standard Specifications shall be followed.

2.1.1.6. Rounding-off of amounts:

2.1.1.7. In calculating the amount of each item due to the Contractor in every certificate prepared for payment, sum of less than 50 Paise shall be omitted and the total amount on each certificate shall be rounded off to the nearest rupees, i.e., sum of less than 50 paise shall be omitted and sums of 50 Paise and more upto one rupee shall be reckoned as one rupee.

### **3. Running account payments to be regarded as advance:**

3.1. All running account payments shall be regarded as payment by way of advance against the final payment only and not as payments for Work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof, in this respect, or of the accruing of any claim by the Contractor, nor shall it conclude, determine or affect in any way the powers of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect the Contract. The final bill shall be submitted by the Contractor within one month of the date of physical completion of the Work, otherwise, the Engineer-in-Charge certificate of the measurement and of total amount payable for the Work accordingly shall be final and binding on all parties.

### **4. Void**

### **5. Payment of contractor's bill:**

5.1. Payment due to the Contractor shall be made by the Employer by Account Payee cheque / e-payment forwarding the same to registered office or the notified office of the Contractor. In no case will Employer be responsible if the cheque is mislaid or misappropriated by unauthorized person/persons. In all cases, the Contractor shall present his bill duly pre-receipted on proper revenue stamp payment shall be made in Indian Currency.

5.2. In general payment of final bill shall be made to Contractor within 60 days of the submission of bill on joint measurements, after completion of all the obligations under the Contract.

### **6. Receipt for payment:**

6.1. Receipt for payment made on account of Work when executed by a firm, must be signed by a person holding due power of attorney in this respect on behalf of the Contractor, except when the Contractor(s) are described in their Bid as a limited company in which case the receipts must be signed in the name of the company by one of its principal officers or by some other person having authority to give effectual receipt for the company.

## **7. Completion / Commissioning certificate:**

### **7.1. Application for completion certificate:**

When the Contractor fulfils his obligation under the Contract, he shall be eligible to apply for Completion / Commissioning Certificate. The Engineer-in-Charge shall normally issue to the Contractor the Completion Certificate within one month after receiving any application therefore from the Contractor after verifying from the completion documents and satisfying himself that the Work has been completed in accordance with and as set out in drawings, and the Contract documents. The Contractor, after obtaining the Completion Certificate, is eligible to present the final bill for the Work executed by him under the terms of Contract.

7.1.1. For the purpose of inspection and issuance of completion certificate for Mini/Micro grid Solar PV project, maximum of three (3) site visit may be done by the Employer. If the work is not completed during those visits up to satisfaction of Employer, then all expenses such as travelling, Lodging and boarding and other expenses will be recovered from contractor .

### **7.2. Completion certificate documents:**

For the purpose of Clause 7 above the following documents will be deemed to form the completion documents:

- a) The technical documents complying with Technical Specifications given in Section VI.
- b) Contractor to comply and submit the Checklist documents as per the Prescribed format of SECI, Certificates, catalogue, As built drawings for AC & DC, plant Layout, plant monitoring drawings , Bill of Materials, Bill of Quantity, Project completion certificate, Satisfactory certificate from Village Level Committee (VLE) if any, and supporting documents to Engineer-In-Charge to issue the Completion certificate/Commissioning certificate.
- c) Photographs /Detailed circuit diagram of Electrical/Electronic components of the system.

## **8. Final decision and final certificate:**

- 8.1. Upon expiry of the liability and subject to the Engineer-in-Charge being satisfied that the Works have been duly maintained by the Contractor during such period as here in before provided in Contract and that the Contractor has performed all his obligations under the Contract, the Engineer-in-Charge shall (without prejudice to the rights of the Employer to retain the provisions of relevant Clause hereof) otherwise give a certificate herein referred to as the Final Certificate to that effect and the Contractor shall not be considered to have fulfilled the whole of his obligations under Contract until Final Certificate shall have been given by the Engineer-in-Charge notwithstanding any previous entry upon the Work and taking possession, working or using of the same or any part thereof by the Employer.

## **9. Certificate and payments on evidence of completion:**

- 9.1. Except the Final Certificate, no other certificates or payments against a certificate or on general account shall be taken to be an admission by the Employer of the due performance of the Contract or any part thereof or of occupancy or validity of any claim by the Contractor.

## **10. Deductions from the contract price:**

- 10.1. All costs, damages or expenses which Employer may have paid or incurred, which under the provisions of the Contract, the Contractor is liable/will be liable, will be claimed by the Employer. All such claims shall be informed by the Employer to the Contractor. Such claims shall be paid by the Contractor within 15 (fifteen) days of the receipt of the Information Notice/ bills and if not paid by the Contractor within the said period, the employer may, then, deduct the amount from any moneys due i.e., Contract Performance Security or becoming due to the contractor under the contract or may be recovered by actions of law or otherwise, if the contractor fails to satisfy the Employer of such claims.

## **SECTION VI TECHNICAL SPECIFICATION**



## **SECTION VI TECHNICAL SPECIFICATION**

- 1. Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhood Dian and Baswala) under Ambala circle in Haryana State.**
- 2. The proposed projects under this Tender for setting up Mini Grids shall broadly follow the following technical specifications given below. Any shortcomings will lead to cancellation of project by SECI & Competent Authority's decision will be final.**
- 3. The Solar PV Mini Grid system shall consist of following equipment's/components.**
  - i. Generation of LT Power through PV Plant
  - ii. Distribution at LT to house hold and other essential within a radius of 2-3 kMs.

A. Generation of LT (240V)/440V, 50Hz supply through PV

  1. Civil works & site preparation (including RCC building for housing battery bank and control systems for monitoring)
  2. Solar PV modules.
  3. Mounting structures and civil foundation.
  4. PV Inverters
  5. Backup Inverters
  6. Battery bank
  7. Cabling DC and AC
  8. Earthing and lightening protections.
  9. Monitoring system

### **4. General description & Configuration:**

- a) The Solar Photovoltaic Power Plant with the aggregate capacity of 101 kWp to cater the electricity of 24 hours duration/day. The system should have the autonomy of 1 consecutive sun less days and shall have the provision of charging battery bank mainly through PV. It should be designed such that during sunny hours the loads are fed from SPV Power Plant in addition to battery charging. The Power Plant shall provide a reliable and independent power supply.
- b) A typical Solar Photovoltaic Power Plant comprises of PV module for charging the battery, solar deep cycling battery for storage, a Charge Controller for intelligent charging, discharging and protection of the battery, an Inverter for

conversion from DC to AC and complete set of hardware for proper performance and functioning of the system.

**5. The Scope of Work under village electrification is as follows:**

- i. The scope of the project covers the complete works on turnkey basis related to Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning
- ii. Operation & Maintenance(O&M) for 20 years from the date of Commissioning,
- iii. Inland transportation including loading, unloading , transfer to Site, insurance and other incidental services required for Mini/ Micro grid Solar PV projects at the following three villages Under Ambala circle of Haryana state.
  - a. Bhoj Nagal-48kW,
  - b. Bhodd Dian-28kW and
  - c. Baswala-25kW
- iv. Contractor shall identify the Land(s) for development of Mini Grid SPV plant(s) and facilitate SECI to have legal agreement from Land Owner(s) for agreement regarding right to use/Lease deed for 21 years in favour of SECI/Employer. (The format for Lease deed/agreement shall be furnished later). No separate payment will be made by SECI regarding land for lease rent or any other purpose and Successful bidder /Contractor shall be required to bear entire expenditure for the duration of Contract.
- v. Site development and Construction of Mini grid SPV plant shall be the complete responsibility of contractor.
- vi. Identification of Land and facilitate SECI for legal agreement, Site development and Construction of Mini grid SPV plant shall be the complete responsibility of contractor.
- vii. Erection of Solar modules, inverters, transmission and distribution networks and other accessories required for successful operation of the project.
- viii. Control room and Battery bank shall be of Reinforced Cement Concrete (RCC) of suitable sizes for housing of batteries and control systems. The facilities must be properly ventilated and must have clear space for walking for atleast one person between different rows of equipments.
- ix. Submit the monthly progress report to SECI in the format desired by Engineer-in charge of SECI for the entire duration of 20 years.
- x. Operation and Maintenance of minimum 20 years from the date of system commissioning of Mini grid solar Photovoltaic power plants including transmission and distribution networks.

- xi. Design and implement the self-sustainability model through village energy committee of the complete system after the completion of O&M period as per SCC Clause 13.
- xii. Coordination with the concerned local body of Bhoj Nagal, BhooDian and Baswala under Ambala circle of Haryana state for successful implementation of project.
- xiii. Imparting training in O&M of the off grid Solar PV plant to beneficiaries in the manner as decided by the SECI engineer-in-charge
- xiv. Electricity shall be distributed to all the Households, Community Building and Street Lights.
- xv. Mini grid SPV plant array yard including battery bank and control room shall be fenced with 2.00m chain link & 600mm spiral barbed wire conforming to IS:278 on steel post of height 2.6m above the ground level with suitable construction foundation and spacing of 3.50m between the adjacent post.
- xvi. Bidder has to make necessary arrangement of Transmission/Distribution network & House wiring & basic load (like fans, LED Lamps, plug in points, etc. ) for above purpose.
- xvii. Lighting for households & community building will be provided by four light points (11W CFL each), two fan point(50W), five plug point and Street Lighting by 45 W CFL based Street Light of 6 meter or above height from ground fed by Solar Power Plant as mentioned above. The bidders should provide light & fan for each house hold, community building and other building as per requirement of site.
- xviii. The total number of street lights to be installed in each village are as follows:
  - a) Bhoj Nagal - 50,
  - b) BhooDian - 30 and
  - c) Baswala - 30
- i. The sub-systems of power plant should be designed keeping in view of the requirements arising in near future.
- ii. Cost of Testing, Installation and Commissioning of Mini grid SPV Systems inclusive of all.  
Brief Technical Specifications of the proposed SPV Systems of different capacities in three villages are as follows:

## **6. Solar Photovoltaic Modules:**

- a) The PV modules used 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.
- b) In addition, PV modules, must qualify to IEC 61730 for safety qualification testing. For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must qualify to IEC 61701.

- c) Certificate for module qualification from IEC to be submitted as part of the bid offer. Self-undertaking from manufacturer / supplier that the modules being supplied are as per above
- d) The total solar PV array should comprise of solar crystalline modules of 240 Wp or above wattage.
- e) SPV module conversion efficiency should be as per IEC specification and the cell should have minimum fill factor of 0.7 for crystalline technology module.
- f) The module frame shall be made of corrosion resistant materials, preferably having aluminium anodized finish in case of crystalline modules.
- g) The minimum clearance between the lower edge of the modules and the developed ground level shall be 300 mm.
- h) 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.

**7. Other general requirement for the PV modules and subsystems shall be the following:**

- a. The rated output power of any supplied module shall have tolerance of +/- 3%.
- b. The module shall be provided with a junction box with IEC approval 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.
- c. I-V curves at STC should be provided. .
- d. The PV modules used should be made in India

**8. Modules deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each modules (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).**

- 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, Im, Vm Voc, Isc 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.

**9. Warranties:**

**9.1. Material Warranty**

A. 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")

- 1- Defects and/or failures due to manufacturing
- 2- Defects and/or failures due to materials
- 3- Non conformity to specifications due to faulty manufacturing and/or inspection processes.

If the solar Module(s) fails to confirm to this warranty, the manufacturer will repair or replace the solar module(s), at the Owner's sole option.

## **9.2. Performance Warranty**

- a. 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.
- b. If, Module(s) fail(s) to exhibit such power output in prescribed time span, the bidder will make arrangement to replenish the lost power through additional PV modules of equivalent capacity.
- c. The inverter(s) warranty should be of minimum 5 (five) years.
- d. The Batteries warranty should be of minimum 3 (three) years.

## **10. Insurance:**

- a) The PV modules should be insured by a reputed insurance company which is registered under Indian Insurance Law. For theft, fire, force majeure etc. the expenses in relation to such insurance for the entire lifespan of the project will have to be borne by the bidder.

## **11. Mounting Structures:**

- a. Hot dip galvanized (70micron) iron mounting structures may be used for mounting the modules/ panels/arrays. These mounting structures must be suitable to mount the SPV modules/panels/arrays on the roof top at an angle of tilt with the horizontal in accordance with the latitude or optimum tilt of the place of installation.
- 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 the bidders should submit wind loading calculation sheet to SECI

- c. The mounting structure steel shall be as per latest IS standard and galvanization of the mounting structure shall be in compliance of latest IS standard and amendment.

**12. The structures shall be compatible for on ground installation (*Bidder awarded with LoA (Letter of award) for specific location shall visit the site before installation*).**

**13. Inverters/PCU:**

- a. Keeping in mind the Mini/Micro Off grid system should be Hybrid in design with provision for integration in to the national grid in future, Inverter should be capable of handling such Technical requirement.
- b. The inverter may be of indigenous or foreign make conforming to the standards and specifications as have been indicated in MNRE specifications
- c. There should be PCU having MPPT/PWM based Charge Controller and bi-directional inverter. In the case of deep discharging of battery, there should be a built in option of battery charging from AC grid and/or diesel generator.

Charge controller type	MPPT/PWM
MPPT voltage Range of grid inverter(Nominal)	350 V
Nominal grid Inverter / inverters Capacity	As per requirement at site
Battery inverter/inverters capacity	As per design to supply the desired power to meet load profile.
Battery Bank Voltage(Nominal)	As per site conditions
Battery type	VRLA (AGM or GEL type) with 5 year warranty
Nominal AC Output Voltage	415 V +/- 10% volts 3 phase/ 230 V +/- 10% V for single phase
Inverter Output Frequency	50Hz with +/- 3 % accuracy
AC grid input Voltage range	140 V to 280V AC @ 50Hz
Battery Inverter overloading capacity	200% for 5sec
No load Loss	Less than 0.5%
Inverter THD	<3%
Minimum Inverter Efficiency	93% or More
Operating Ambient Temperature	0 to 55 deg C

Enclosure	IP30 for indoor IP 65 for outdoor
Inverter mounting type	wall mounted
Cooling	Temperature controlled fan forced
Protections	1.Short Circuit
	2.Overload for inverter
	3.Over Temperature
	4.Battery overvoltage shut down
	5.Deep discharge protection of battery
	6.Phase imbalance (in case of three phase output)
	7.Reverse polarity

- d. PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- e. Built-in meter and data logger to monitor plant performance through external computer and remote monitoring shall be provided.
- f. 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 and IEC 60068 2(6,21,27,30,75,78).
- g. The charge controller/ MPPT units should qualify IEC 62093 and IEC 60068. The junction boxes/ enclosures should be IP 65(for outdoor)/ IP 54 (indoor) and as per IEC 62208 specifications.
- h. The PCU/ inverters should be tested from the MNRE approved test centres / NABL /BIS accredited testing- calibration laboratories/International test houses.

#### **14. Array Junction Box, Main Junction Boxes:**

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The J. Boxes shall be made of GRP/FRP/Powder Coated Aluminum with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The J.Bs 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 standards and hinged door with EPDM rubber gasket to prevent water entry. Single compression cable glands. Provision of earthings. .
- c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs) / surge arrestors, suitable Reverse Blocking Diodes. The

Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.

#### **15. 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. or equivalent standard.
- c) The change over switches, cabling work as per IS specifications should be undertaken by the bidder as part of the project.
- d) All the Panels shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 / 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 IP32 or better. All outdoor panels will have protection of IP65 or better.
- g) Should conform to Indian Electricity Act and rules (till last amendment) & approved as per FIA norms.
- h) All the 415V AC, devices / equipment like bus support insulators, circuit breakers, 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	• +/- 4.5 Hz

#### **16. Cables & Wires:**

- 16.1. All standards, specifications and codes of practice referred to herein shall be the latest editions including all applicable official amendments and revisions as on date of opening of bid. In case of conflict between this specification and those (IS: codes, standards, etc.) referred to herein, the former shall prevail. All the cables shall conform to the requirements of the following standards and codes



IS : 5831	PVC insulation and sheath of electrical cables
IS : 8130	Conductors for insulated electrical cables and flexible cords

- 16.2. The cables used in DC side must be having multi-stranded copper conductors with an appropriate PVC insulation and sheath.
- 16.3. The cables shall be suitable for laying on racks, in ducts, trenches, trestles, conduits and underground buried installation with chances of flooding by water.
- 16.4. Copper/ conductor used in power cables shall have tensile strength as per relevant standards. Conductors shall be stranded
- 16.5. the cables for transmission in village can be with aluminium conductor and 25sqmm conductor
- 16.6. Wires used in house wiring to be with copper conductors only.
- 16.7. Repaired cable should not be used.
- 16.8. Cable selection & sizing:
- 16.9. Cables shall be sized based on the following considerations:
  - a. Rated current of the equipment
  - b. The voltage drop in the cable, , shall be limited to 3% of the rated voltage
  - c. Short circuit withstand capability
- 16.10. This will depend on the feeder type. For a fuse protected circuit, cable should be sized to withstand the let out energy of the fuse. For breaker controlled feeder, cable shall be capable of withstanding the system fault current level for total breaker tripping time inclusive of relay pickup time.
- 16.11. Cable employed for series connection of PV modules through MC4 connectors shall be of 4/6 sq. mm size with copper conductor subject to voltage drop value acceptance –only TUV approved cable shall be employed. Tool required for MC4 connectors shall be organized by bidder.
- 16.12. All LT power cables of sizes more than 120 sq.mm. shall be XLPE insulated
- 16.13. Cables shall be armoured type if laid in switchyard area or directly buried

- 16.14. De-rating factors for various conditions of installations including the following shall be considered while selecting the cable sizes
- 16.15. Variation in ambient temperature for cables laid in air
- 16.16. Grouping of cables
- 16.17. The size of each type of cable selected shall be based on minimum voltage drop, however, the maximum drop shall be limited to 3% Selected cable should carry a current density of minimum 1.2Amp/Sq.mm
- 16.18. All electrical cables / wires inside the building to be fixed in accordance with specifications for electrical works.
- 16.19. Proper laying of cables have to be ensured in appropriate cable trays, pipes / trenches as per site requirement.
- 16.20. A.C. supply cables to be terminated at the DB / LT bus bar for laying / termination of cables, latest BIS / IEC codes / standards be followed.
- 16.21. Cables Ends: All connections are to be made through suitable cable/lug/terminals; crimped properly & with use of Cable Glands.
- 16.22. Cable Marking: All cable/wires are to be marked in proper manner by good quality ferule or by other means so that the cable can be easily identified.
- 16.23. Any change in cabling schedule/sizes if desired by the bidder/supplier be got approved after citing appropriate reasons, All cable schedules/layout drawings have to be got approved from the SECI/owners prior to installation. All cable tests and measurement methods should confirm to IEC 60189.

## **17. Battery:**

- 17.1. Each batteries shall be of 24V, 100-200 Ah capacity and VRLA (AGM or GEL type).
- 17.2. The minimum capacity of the battery bank for 1 day autonomy shall be as follows:
- a. Bhoj Nagal-18500 Ah,
  - b. BhooDian-10800 Ah and
  - c. Baswala-10000 Ah

The general specifications shall be as under:

- 17.3. The battery bank shall consist of required number of deep-discharge electrochemical storage cells, suitably interconnected as required. Parallel connections more than 3 of storage cells will be discouraged.
- 17.4. The cells shall be capable of deep discharge and frequent cycling with long maintenance intervals and high coulombic efficiency. Automotive or car

batteries shall not be accepted.

- 17.5. The nominal voltage and capacity of the storage bank shall be selected and specified by the supplier in the bid.
- 17.6. The self-discharge rate of the battery bank or individual cell shall not exceed four (4) percent per month.
- 17.7. The permitted maximum depth of discharge (DOD), shall not be more than 80%.
- 17.8. Unless otherwise specified the cycle life of the battery shall not be less than 1200 DC discharged cycles between the fully charged state and the permitted maximum DOD at the rate of C/10. It should be able to deliver 80% of its rated capacity from fully charged position to DOD.
- 17.9. The cells shall include safety vent plugs.
- 17.10. The cells shall include the required number or corrosion resistant inter-cell connectors.
- 17.11. The cells shall preferably be supplied in dry charged condition, complete with all required chemicals electrolyte packed in separate containers.
- 17.12. If the cells are supplied in uncharged conditions, then the supplier shall provide full instructions for first time charging including, but not limited to, the following:
- 17.13. A checklist of all items required.
- 17.14. Minimum specification with possible alternatives, of the required battery charger for first time charging.
- 17.15. Instruction of electrolyte filling, battery charging etc. and instructions on the transportation of charged batteries, if required.
- 17.16. Suitable number of corrosion resistant and acid-proof storage racks shall be supplied to accommodate the cells. The rack design shall be such that minimum space is required, without any way obstructing the maintenance requirements. For metallic racks, standards specified for control panel enclosures and other metallic shall govern.
- 17.17. All technical and other details pertaining to the storage cells shall be supplied including but not limited to the following: -
  - i. Rated voltage and ampere-hour capacity of each storage cell as the rated discharge rate.
  - ii. Permitted maximum DOD.
  - iii. Self-discharge rate.
  - iv. Cycle life of the storage cell and the anticipated life (in years) of the battery bank.
  - v. Total number of storage cells in use.

vi. Details on cell interconnections, if any

17.18. Battery Rack: Battery rack should be of matured treated salwood duly painted. Placement of battery should be such that maintenance of the battery could be carried out easily. The non-reactive acid proof mat should be provided to cover the entire floor space of the battery room.

17.19. Tools Kit: Necessary tools kits to be provided along with each battery bank for any immediate maintenance compositions. Tool kit shall include at least Hydrometer, Cell Tester, Thermometer with wall mounting frame in which hydrometer & cell tester can also be hanged, Ah meter for testing Ah of the battery (for measuring both import & export of Ah), Rubber gloves, Gum Boot, Funnel, Spare ten liter distill water in two canes, plastic mug, rubber pipe, pumping balloon & jelly. Tool Kits shall be provided in a strong toolbox made of good quality MS.

## **18. Transmission & Distribution Voltage(T&D):**

For the power plant: The output voltage shall be 415/230 V, I-Phase, 50 Hz supplied by three phase/single phase grid tied inverter only. The distribution line should be overhead through 8M PCC pole. Distribution line may be constructed through suitable rating overhead conductor or ABC (Aerial Bunched Cable). Distribution line shall be comply with REC construction specification

## **19. Spares & Inventory:**

- 19.1. After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the contractor for maintenance purpose. A list of tools supplied must also be furnished by the contractor.
- 19.2. A list of requisite spares to keep the system in operation without any breakdown shall be supplied along with equipment's. A minimum set of spares shall also be maintained for the entire period of warranty and operation & maintenance.
- 19.3. Any other items for smooth & proper functioning of the system.

## **20. Quality and adaptability of the equipment:**

- a) Interested Companies must verify the grid behaviour, solar insolation levels and general site conditions on their own before bidding. The bidder shall accordingly ensure that the equipment and the design submitted shall be able to perform as per guaranteed performance levels in the available site conditions. The design of the plant and the equipment offered shall be evaluated for its quality and adaptability to the site conditions.

## **21. Plant Control/Data Logger/Plant Monitoring Unit:**

- 21.1. Basically, this unit should perform the following.
  - 21.1.1. Measurement and/or recording of energy parameters.
  - 21.1.2. Simple data logger or energy meter to record the energy data on a pre-determined interval basis.
  - 21.1.3. Measurement & continuous acquisition of ambient air temperature, , solar radiation, PV module temperature, PCU output voltage and current, output frequency, currents in the cables at aforementioned locations at the receiving ends.
  - 21.1.4. Operating state monitoring and failure indication.
  - 21.1.5. Representation of monitored data in graphics mode or in tabulation mode.
  - 21.1.6. Controlling & monitoring the entire power system through remote terminal.
  - 21.1.7. Necessary hardware & software shall have to be supplied by the bidder. Both the software and hardware required for interfacing the plant with office including CPUs, modems UPS are to be supplied and installed by the bidder.
  - 21.1.8. Remote control/ Instrumentation: The microprocessor control unit should have the provision for installation of RS 485 communication link or latest should be provision of wired / wireless interface with blue tooth etc.

## **22. Plant Metering/Data Logging:**

- 22.1. PV array energy production: Digital Meters to log the actual value of AC/DC Voltage, Current & Energy generated by the PV system shall have to be provided.
- 22.2. Solar Irradiance through appropriate radiation sensor (pyranometer) mechanism should be provided with the sensor mounted in the plane of the array. Readout should be integrated with data logging system.
- 22.3. Temperature Sensor: Integrated temp, sensors for measuring the module surface temp., inverter inside enclosure temp, and ambient temp to be provided complete with readouts integrated with the data logging system.
- 22.4. A data logging system (Hardware and software) for plant control and monitoring shall be provided with the following features:
- 22.5. All major parameters should be available on the digital bus and logging facility for energy auditing through the internal microprocessor and can be read on the digital front panel at any time the current values, previous values for up to a month and the average values. The following parameters should be accessible via the operating interface display and also on the dedicated laptop/desk top in the office of the SECI and owners through internet.

a) AC Voltage

- b) AC Output current
- c) Output Power
- d) DC Input Voltage
- e) DC Input Current
- f) Time Active
- g) Time disabled
- h) Time Idle
- i) Temperatures (C)
- j) Invertor Status
- k) Irradiation
- l) Module temperature
- m) Protective function limits (Viz – AC overload voltage, AC under voltage, over frequency. Under frequency, ground fault. PV starting voltage, PV stopping voltage, over voltage delay, under voltage delay, over frequency, Ground fault delay, PV starting delay, PV stopping delay).

## **23. Protections**

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

### **23.1.1. Lightning Protection:**

There shall be the adequate number of suitable lightning arrestors of ESE type installed in the array field. The Lightning conductor shall be earthed through flats and connected to earth pits as per applicable Indian Standards. Each Lightning conductor shall be fitted with individual earth pit as required. In addition, Lightning protection shall be provided by the use of metal oxide varistors or lightening arrestors and suitable earthing such that induced transients find an alternate route to earth. Protection shall meet the safety rules as per Indian Electricity Act.

### **23.1.2. Earthing Protection:**

- a) Each array structure of the PV array /yard should be grounded properly. The array structures shall be connected to earth pits of suitable size as per IS Standards. In addition the lightning arrester/masts should also be provided inside the array field. Provision should be kept be provided inside the array field. . All metal casing/shielding of the plant should be thoroughly grounded in accordance with Indian electricity Act./IE Rules.
- b) Earth resistance should be tested in presence of the representative of SECI after earthing by calibrated earth tester. PCU, ACDB & DCDB should be earthed properly.
- c) Earth resistance shall not be more than 2 ohms inside power plant area and may be extended upto 5 ohms in distribution side. It shall be ensured that all the earths are bonded together to make them at the same potential.

## **24. Meter**

### **24.1. 3ph DTR Meter: (1.0 Accuracy )**

This specification covers design, engineering, manufacture, testing, inspection and supply of A.C. 3-phase, 4-wire solid state (Static) whole current meter or CT/PT operated meter use for balanced /unbalanced load in/ rural area. The meter should be capable of recording and displaying energy kWh & kVA, power factor range of Zero lag-unity- Zero lead. Meter should have facility /capability of recording tamper information & load survey in active, apparent & reactive energy & phase currents.. Energy meter should be ISI marked and as per the standard IS:13779

24.1.1. All electrical meter should be installed in tamper proof box.

### **24.2. Single phase Meter:**

This specification covers design, engineering, manufacture, testing, inspection & supply of A.C. Single phase, two wire solid state ( static) fully electronic energy meters of accuracy class 1.0 & current rating 5-30 A, with backlit LCD display for 240 Volt systems as per requirement in this specification. The meter should be capable of recording & displaying energy kWh & demand in kW for single phase two wire A.C. loads respectively for power factor range of Zero lag – unity – Zero lead. Meters should have facility/ capability of recording tamper information. Energy meter should be ISI marked and as per the standard IS:13779

24.2.1. All electrical meter should be installed in tamper proof box.

### **24.3. Tamper Proof Box:**

- i. This specification covers manufacture and supply of enclosures with excellent weather ability so as to offer protection of electrical equipment against harsh weather. The box shall be anti-corrosive, dust proof, shock, vermin & waterproof, pilfer proof, fire proof and UV stabilized. The enclosures shall not deform or melt when exposed to fire.
- ii. The enclosures shall be made out of thermosetting plastic e.g. glass fibre reinforced polyester SMC (Sheet Moulding Compound) as per S1 grade of IS13410, or Glass Reinforced Polyester Dough Moulding Compounds as per Grade D1 of IS 13411, with flame retardant properties and mechanical & corrosion resistant properties. The overall dimensions of the enclosure shall be as per site condition and sufficient gap should be provided all side of the meter. a transparent window should be provided in tamper proof box to view the meter reading outside. All accessories like nuts, bolts, washers etc. shall be galvanized.

## **25. Fire Extinguishers:**

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

- i. Suitable size & quantity of portable fire extinguishers in the control room for fire caused by electrical short circuits as per IS standard
- ii. Sand buckets with arrangement in the control room
- iii. 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.

**26. Specification of SPV based Solar Street lighting systems as follows:**

**A. Brief Specifications of Solar Street Light based On CFL**

- I. PV Module : Centralised
- II. Lamp : 45W CFL type, 220-240V 1Ph
  - a. Colour : white
  - b. Life Span : At least 6000hr
  - c. Base Lumen : 2600
- III. Lamp Enclosure: CFL housed with IP65 Metallic enclosure with proper heat sink for ventilation
- IV. Battery : Centralized
- V. Pole : GI pipe 65NB, Height Min 6 Meters above ground & 0.5meter below ground, Class-13(Pole must be concreted)
- VI. PCU : Centralized

**B. Protections**

- i. The system has protection against battery overcharge, deep discharge conditions.
- ii. Fuses provided to protect against short circuit conditions.
- iii. Protection for reverse flow of current through the PV module(s) provided.

**27. 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

**28. 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. Two signages shall be provided one each at battery –cum- control room and solar array area

**29. Drawings & Manuals:**

- i. Two copies (hard & soft each) of as built 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.
- ii. Approved ISI and reputed makes for equipment be used.
- iii. For complete electro-mechanical works, bidders shall supply complete design, details and drawings for approval to SECI/owners before progressing with the installation work.

**30. 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 labor. The bidder should submit the array layout drawings along with Shadow Analysis Report to SECI/Owner for approval.

**31. O&M Manual:**

O&M manual for the installed system has to be provided by contractor before commissioning and also take care of training & capacity building of the local body.

**32. Service connection:**

BPL/APL service connection will be done as per REC village electrification specification. .

**Note :SECI reserve the right of addition/deletion of any portion of technical specifications whenever required.**

## **SECTION VII PRICE BID**

## PRICE BID

**BID No: SECI/Cont./Ind./68/2014dated: 23.06.2014**

**Date:**

Description of Work	Proposed Capacity of Mini grid SPV system in three villages in Wp	Rate per Wp of Mini grid SPV system inclusive of all taxes & duties (Rs.) / Wp	Amount for total proposed capacity inclusive of all taxes & duties (Rs.)	Break-up of Applicable Taxes & duties	
1	2	3	4= 2X3	5	
Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhood Dian and Baswala) under Ambala circle in Haryana State. Details about the complete scope of work, capacity of Mini Grid SPV in different villages shall be referred from Clause 1.2 of Section-II (ITB) and Clause 5 of Section-VI, Technical Specifications and other terms and conditions of Bid document.	101000			Service Tax	Rs._____ in figures
					Rs._____ in words
				VAT	Rs._____ in figures
					Rs._____ in words
				Any other applicable taxes & duties (mentioning the name if any)	Rs._____ in figures
					Rs._____ in words
<b>Total Price(in figures)</b>					
<b>Total Price(in words)</b>					

**Note:**

1. In case of discrepancy between unit price in column no. 3 and total price in column no. 4, the unit price will prevail and final price will be computed accordingly.
2. If there is a discrepancy between words and figures, the amount written in words will prevail.
3. The rates quoted by the bidder for all materials, required to be purchased for the satisfactory performance of this contract, shall be deemed to be inclusive of all duties, taxes, octroi, royalties, rentals etc.
4. The price mentioned in column No. 4 above only will be considered for purpose of evaluation of Price bid.
5. O&M is for a period of 20 years from the date of Commissioning and ensure a smooth and efficient operation of Mini grid Solar PV plants.
6. Break-up of all applicable taxes & duties applicable in respect of contract shall be indicated in column No 5 (including "Nil" if any). These Taxes & duties shall be reimbursed at actuals against documentary evidence only. No Exemption certificate and No Concessional duty certificate(C-form, etc.) in respect of any taxes will be issued by SECI/Employer.
7. In case the bidder does not specify anything on account of taxes in column No. 5 than no payment will be paid extra on account of taxes & duties.

(Signature of Authorized Signatory)

Name :

Designation :

Company Seal:

## **FORMATS FOR BID SUBMISSION**

SECTION VIII

**FORMATS FOR SUBMITTING BID**

**Covering Letter**

(The covering letter should be on the Letter Head of the Bidding Company)

Ref. No. \_\_\_\_\_ Date: \_\_\_\_\_

From: \_\_\_\_\_ (Insert name and address of Bidding Company)

\_\_\_\_\_

\_\_\_\_\_

Tel. #:

Fax #:

E-mail address #

To

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

Sub: **Bid for “Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhood Dian and Baswala) under Ambala circle in Haryana State”.**

Dear Sir,

1. We, the undersigned....[insert name of the ‘Bidder’] having read, examined and understood in detail the Bid Document for Bid for “Design, Manufacture, Supply, Erection, Installation, Testing and Commissioning including 20 years Operation & Maintenance (O&M) from the date of Commissioning (out of which payment for first 5 years shall be paid by SECI) for Mini Grid Solar Photovoltaic (SPV) Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj

Nagal, BhooDian and Baswala) under Ambala circle in Haryana State.” hereby submit our Bid comprising of Price Bid and Commercial Bid.

2. We give our unconditional acceptance to the Bid, dated \_\_\_\_\_ and Bid Documents attached thereto, issued by Solar Energy Corporation of India, as amended. As a token of our acceptance to the Bid Documents, the same have been initialled by us and enclosed to the Bid. We shall ensure that we execute such Bid Documents as per the provisions of the Bid and provisions of such Bid Documents shall be binding on us.

### 3. **Processing fee**

We have enclosed a non-refundable bid processing fee of Rs 16, 854/- (Sixteen thousand Eight Fifty Four Only) in the form of Demand Draft (DD) no.....(Insert name of bank providing DD)..... .

### 4. **Bid Bond**

We have enclosed a Bid Bond of Rs 6 Lakhs in the form of Demand Draft (DD) no.....(Insert name of bank providing DD)..... .

5. We have submitted our Price Bid strictly as per Section VII of this Bid, without any deviations, conditions and without mentioning any assumptions or notes for the Price Bid in the said format.

### 6. **Acceptance.**

We hereby unconditionally and irrevocably agree and accept that the decision made by Solar Energy Corporation of India in respect of any matter regarding or arising out of the BID shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.

We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to execution of projects of capacity offered by us.

### 7. **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 Bid and execute the Bid Documents, in the event of our selection as Successful Bidder. We further undertake and agree that all such factors as mentioned in Bid have been fully examined and considered while submitting the Bid.

## 8. Authorized Contact Person details

Details of the authorized contact person are furnished as under:

Name	:	.....
Designation	:	.....
Company	:	.....
Address	:	.....
Phone No.	:	.....
Mobile No.	:	.....
Fax Nos.	:	.....
E-mail id	:	.....

9. We are enclosing herewith the Commercial Bid (Envelope I) and Price Bid (Envelope II) containing duly signed formats, each one duly sealed separately, in one (1) original (duly attested) as desired by you in the Bid for your consideration as per ITB clause13.
10. It is confirmed that our Bid is consistent with all the requirements of submission as stated in the Bid and subsequent communications from Solar Energy Corporation of India.
11. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the Bid and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid.
12. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 135 days from the Bid Deadline.
13. We confirm that we have not taken any deviation so as to be deemed non-responsive.

Dated the\_\_\_\_\_day of\_\_\_\_\_,2014.

Thanking you,  
We remain,

Yours faithfully,

**Name, Designation and Signature of Authorized Person in whose name Power of Attorney/Board Resolution has been executed during empanelment or as per ITB Clause 8.1.4 is issued.**



**FORMAT FOR PERFORMANCE BANK GUARANTEE**

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

In consideration of the ----- [Insert name of the Bidder] (hereinafter referred to as selected Solar Power Developer') submitting the response to Bid inter alia for "Implementation of Mini Grid SPV Power Plants for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhodh Dian and Baswala) under Ambala circle in Haryana State" in response to the Bid dated..... issued by Solar Energy Corporation of India (hereinafter referred to as SECI) and SECI considering such response to the Bid 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 and issuing Letter of award No ----- to (Insert Name of selected Solar Power Developer) as per terms of Bid and the same having been accepted by the selected SPD or a Project Company, M/s ----- {a Special Purpose Vehicle (SPV) formed for this purpose}, if applicable ]. As per the terms of the tender, the \_\_\_\_\_ [insert name, branch code & address of bank] 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 authorised by it in this behalf, any amount upto and not exceeding 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 Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ only).

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

The Guarantor Bank hereby agrees and acknowledges that 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 selected Solar Power Developer / Project Company as applicable] 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 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 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 SECI or to exercise, levy or enforce any distress, diligence or other process against the selected Solar Power Developer / Project Company .

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. \_\_\_\_\_ (Rs. \_\_\_\_\_ 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 SECI serves upon us a written claim or demand.

Signature \_\_\_\_\_

Name \_\_\_\_\_

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

For

\_\_\_\_\_ [Insert Name 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 Bank from the List of Banks enclosed as per Annexure-2

## POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

- (a) **Power of Attorney to be provided by the Bidding Company in favour of its representative as evidence of authorized signatory's authority.**

Know all men by these presents, We .....  
(name and address of the registered office of the Bidding Company as applicable) do hereby constitute, appoint and authorize Mr./Ms. .... (name & residential address) who is presently employed with us and holding the position of ..... as our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for Implementation of Mini Grid SPV Power Plant for the aggregate capacity of 101kW in three villages (i.e. Bhoj Nagal, Bhlood Dian and Baswala) under Ambala circle in Haryana State" as per Bid specification.

in response to the NIT No ..... dated ..... issued by Solar Energy Corporation of India (Employer), New Delhi including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the Employer may require us to submit. The aforesaid Attorney is further authorized for making representations to the Solar Energy Corporation of India, New Delhi and providing information / responses to Employer, New Delhi representing us in all matters before Employer, New Delhi and generally dealing with Employer, New Delhi in all matters in connection without Bid till the completion of the bidding process as per the terms of the above mentioned NIT.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the NIT.

**Signed by the within named**

..... (Insert the name of the executant company)

**through the hand of**

**Mr. ....**

**duly authorized by the Board to issue such Power of Attorney**

**Dated this ..... day of .....**

**Accepted**

.....

Signature of Attorney

(Name, designation and address of the Attorney)

**Attested**

.....

(Signature of the executant)

(Name, designation and address of the executant)

.....

Signature and stamp of Notary of the place of execution

Common seal of ..... has been affixed in my/our presence pursuant to Board of Director's Resolution dated.....

**WITNESS**

1. ....

(Signature)

Name.....

Designation .....

2. ....

(Signature)

Name.....

**Designation .....**

**Notes:**

- (1) The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.
- (2) The person authorized under this Power of Attorney, in the case of the Bidding Company / Lead Member being a public company, or a private company which is a subsidiary of a public company, in terms of the Companies Act, 1956, with a paid up share capital of more than Rupees Five crores, should be the Managing Director / whole time director/manager appointed under section 269 of the Companies Act, 1956. In all other cases the person authorized should be a director duly authorized by a board resolution duly passed by the Company.
- (3) Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

**FORMAT FOR BANK GUARANTEE FOR –ADVANCE**

This deed of Guarantee made on.....day of Month & Year on Name & Address of the bank (hereinafter called the 'GUARANTOR') on the one part, on behalf of M/s Name & address of the Bidder (hereinafter called the 'Contractor') in favour of Solar Energy Corporation of India, D-3, A Wing, 1st Floor, Religare Building, District Centre, Saket, New Delhi-110 017 (hereinafter called 'Employer') on the other part, on the following terms and conditions.

Whereas the Contractor' has agreed for the Name & quantity of the Work against Work order issued by Employer bearing No. ....Dated.....amounting to Rs...And whereas in pursuance of the term of agreement No.....between Employer and the Contractor, Employer having agreed to pay advance of Rs...against bank guarantee, this guarantee is being made for the purpose release of mobilization advance.

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep Employer indemnified up to the extent of Rs.....during the validity of this bank guarantee and authorize Employer to recover the same directly from the GUARANTOR. This bank guarantee herein contained shall remain in full force and effect till the expiry of its validity or till any extended period (if extended by the bank on receiving instructions from FIRM). The liability under the guarantee shall be binding on the GUARANTOR or its successors.

Whereas the GUARANTOR further agrees that their liability under this guarantee shall not be affected by any reason of any change in the offer or its terms and conditions between the Contractor and Employer with or without the consent or knowledge of the GUARANTOR.

Whereas the GUARANTOR hereby agrees not to revoke this guarantee bond during its currency period except with the previous consent of Employer in writing.

Notwithstanding anything contained herein-

- 1 Our liability under this bank guarantee shall not exceed Rs.....
- 2 This Bank guarantee shall be valid up to .....

3 We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only against the written claim or demand on or before.....

Sealed with the common seal of the bank on this.....day of Month and Year

(Signature and seal of the bank)

**Witness**

.....

2.....



**Location details for Installation of SPV based Mini Grid projects under Ambala circle in Haryana State**

Panchkula district is situated in North-East Haryana and shares its border with Himachal Pradesh and Punjab. Panchkula the main town of this district is a satellite city of the Union Territory of Chandigarh. Panchkula district is spread over 898 sq km of land. The Panchkula district is divided into 4 blocks- Barwala, Pinjore, Raipur Rani and Morni.

Most of the villages in the Morni block of Haryana are electrified. Yet there remain a few hamlets which are a cluster of households at different locations which remain unelectrified and without any access to electricity. The three hamlets /villages that have been chosen for the implementation of Mini grid project are as follows;

2. Bhoj Nagal,
3. Bhodd Dian
4. Baswala

**List of Banks**

<b>1. SCHEDULED COMMERCIAL BANKS</b>	<b>2. OTHER PUBLIC SECTOR BANKS</b>
<b>SBI AND ASSOCIATES</b>	1. IDBI Bank Ltd.
1. State Bank of India	<b>3. FOREIGN BANKS</b>
2. State Bank of Bikaner & Jaipur	1. Bank of America NA
3. State Bank of Hyderabad	2. Bank of Tokyo Mitsubishi UFJ Ltd.
4. State Bank of Indore	3. BNP Paribas
5. State Bank of Mysore	4. Calyon Bank
6. State Bank of Patiala	5. Citi Bank N.A.
7. State Bank of Travancore	6. Deutsche Bank A.G
<b>NATIONALISED BANKS</b>	7. The HongKong and Shanghai Banking Corpn. Ltd.
1. Allahabad Bank	8. Standard Chartered Bank
2. Andhra Bank	9. Societe Generale
3. Bank of India	10. Barclays Bank
4. Bank of Maharashtra	11. Royal Bank of Scotland
5. Canara Bank	12. Bank of Nova Scotia
6. Central Bank of India	13. Development Bank of Singapore (DBS, Bank Ltd.)
7. Corporation Bank	14. Credit Agricole Corporate and Investment Bank
8. Dena Bank	<b>4. SCHEDULED PRIVATE BANKS</b>
9. Indian Bank	1. Federal Bank Ltd.
10. Indian Overseas Bank	2. ING Vysya Bank Ltd.
11. Oriental Bank of Commerce	3. Axis Bank Ltd.
12. Punjab National Bank	4. ICICI Bank Ltd.

13. Punjab & Sind Bank	5. HDFC Bank Ltd.
14. Syndicate Bank	6. Yes Bank Ltd.
15. Union Bank of India	7. Kotak Mahindra Bank
16. United Bank of India	8. IndusInd Bank Ltd
17. UCO Bank	9. Karur Vysya Bank
18. Vijaya Bank	
19. Bank of Baroda	