

**Design, Supply, Installation & Commissioning including 5  
Years Comprehensive Maintenance Contract (CMC) of 25  
kWp Off-Grid SPV Power Plants at Different Locations  
in the State  
of  
Meghalaya**

**Meghalaya New and Renewable Energy  
Development Agency (MNREDA)  
Government of Meghalaya**

**Tender Reference No. NIB No: MNREDA/1599/2014 (Pt-I)/109**

**Meghalaya New and Renewable Energy Development Agency (MNREDA)**

Near BSF Camp, PO. Mawpat, Nongmensong, Shillong-793019 (Meghalaya).

Ph.: 0364-2537343/ 2536138, Fax: 0364-2537611,

E-mail: [mnreda.dir@gmail.com](mailto:mnreda.dir@gmail.com) ; Website: [www.mnreda.gov.in](http://www.mnreda.gov.in)

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E-mail: [mnreda.dir@gmail.com](mailto:mnreda.dir@gmail.com) ; Website: [www.mnreda.gov.in](http://www.mnreda.gov.in)**NIB No. MNREDA/1599/2014 (Pt-I)/109****e-Procurement Notice****Dated: 06.11.2019**

1	Name of the work	Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of cumulative 25 kWp Off-Grid SPV Power Plants at Different Locations in the State of Meghalaya.  <b>(Final capacity allocation will be intimated to the selected bidders at the time of issuing LoA to the selected vendors)</b>
2	Estimated Cost	92.00 Rupees/Wp or as per Latest MNRE Benchmark
3	Period of contract	120 Days for Design, Supply, Installation & Commissioning, from issuance of Work Order, + 5 years CMC
4	Date of publication of NIT on website: <a href="http://meghalayatenders.gov.in">http:// meghalayatenders.gov.in</a>	<b>06.11.2019 at 16:00 Hrs IST</b>
5	Date & time of Pre-bid meeting	<b>13.11.2019 at 10:30 Hrs IST</b>
6	Last date & time for receipt of online bids	<b>27.11.2019 at 13:00 Hrs IST</b>
7	Submission of original copies of Bid fee & EMD (Offline)	<b>27.11.2019 at 12:00 Hrs IST</b>
8	Technical Bid Opening Date	<b>27.11.2019 at 16:00 Hrs IST</b>
9	Name & address of office inviting tender	<b>The Director,</b> Meghalaya New and Renewable Energy Development Agency (MNREDA) Near BSF Camp, PO. Mawpat, Nongmensong, Shillong-793019 (Meghalaya). Ph.: 0364-2537343/ 2536138, Fax: 0364-2537611, E-mail: <a href="mailto:mnreda.dir@gmail.com">mnreda.dir@gmail.com</a> Website: <a href="http://www.mnreda.gov.in">www.mnreda.gov.in</a>
10	Helpline no. of e-procurement	0120-4001 002/005 Email: <a href="mailto:support-eproc@nic.in">support-eproc@nic.in</a>

Any change can be seen on website: <http://meghalayatenders.gov.in> & [www.mnreda.gov.in](http://www.mnreda.gov.in) Further details can be seen on website: <http://meghalayatenders.gov.in>

**Director,  
MNREDA, Shillong**

## SECTION -1

**NIB No. MNREDA/1599/2014 (Pt-I)/109**

### List of Important dates & details of Bids

1.	Name of work	<b>Design, Supply, Installation &amp; Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of cumulative 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.</b>  <i>(Final capacity allocation will be intimated to selected bidders at the time of issuing LoA)</i>
2	Tender reference no.	
3	Mode of submission of tender	Online through <a href="http://www.meghalayatenders.gov.in">www.meghalayatenders.gov.in</a>
4	Cost of Bid document (Non-refundable)	❖ <b>For General Bidder:</b> Rs. 15,000/- (Rupees Fifteen Thousand) only. ❖ <b>For MSME of Meghalaya:</b> Rs. 7500/- (Rupees Seven Thousand Five Hundred) only.
5	Earnest Money Deposit	<b>2% of Total Estimated Project Cost (For General Bidder) and 1% of Total Estimated Project Cost (For MSME of Meghalaya)</b>
6	Date of publication of NIT on website: <a href="http://meghalayatenders.gov.in">http://meghalayatenders.gov.in</a>	<b>06.11.2019 at 16:00 Hrs</b>
7 8	Period of downloading of bidding documents	<b>06.11.2019 at 16:00 Hrs</b>
9	Bid online submission	<b>06.11.2019 at 16:00 Hrs</b>
	Technical bid opening date	<b>27.11.2019 at 16:00 Hrs</b>
10	Authority inviting bids	The Director, Meghalaya New and Renewable Energy Development Agency (MNREDA)
11	Address	<b>Meghalaya New and Renewable Energy Development Agency (MNREDA)</b> Near BSF Camp, PO. Mawpat, Nongmensong, Shillong-793019 (Meghalaya). Ph.: 0364-2537343/ 2536138, Fax: 0364-2537611, E-mail: <a href="mailto:mnreda.dir@gmail.com">mnreda.dir@gmail.com</a> Website: <a href="http://www.mnreda.gov.in">www.mnreda.gov.in</a>

**Note:** The tender fee and Earnest Money Deposit (EMD) in original must be submitted between all working days from **Date: 06.11.2019 to date: 27.11.2019 by 13.00 Hrs IST**. If tender fee and EMD are not received before mentioned date and time, tender shall not be accepted.

**Place for receiving tender fee & EMD:**

Meghalaya New and Renewable Energy Development Agency (MNREDA), Near BSF Camp, PO. Mawpat, Nongmensong, Shillong-793019 (Meghalaya).

## **SECTION-2**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

### **Instructions to Bidders**

#### **Detailed instructions & documents to be furnished for online bidding**

1. The guidelines to submit bid online can be downloaded from website <http://meghalayatenders.gov.in>
2. The interested bidders can download the bid from the website "<http://meghalayatenders.gov.in>".
3. To participate in bidding process, bidders have to get 'Digital Signature Certificate (DSC)' as per Information Technology Act-2000 to participate in online bidding. This certificate will be required for digitally signing the bid. Bidders can get above mentioned digital signature certificate from any approved vendors (CCA). Bidders, who already possess valid Digital Certificates, need not to procure new Digital Certificate.
4. The bidders have to submit their bids online in electronic format with digital Signature. The bids without digital signature will not be accepted. No proposal will be accepted in physical form.
5. Bids will be opened online as per time schedule mentioned in Section 1
6. Bidders should get ready with the scanned copies of cost of documents & EMD as specified in the tender document. Before submission of online bids, bidders must ensure that scanned copy of all the necessary documents have been attached with bid.
7. Bidder have to produce the original D.D. towards tender fee & EMD in approved form to the authority "Director, Meghalaya New and Renewable Energy Development Agency, Shillong" on the date & time as mentioned in the NIT failing which bidder will be disqualified. The details of cost of documents, EMD specified in the tender documents should be the same as submitted online (scanned copies) otherwise tender will summarily be rejected.
8. Uploaded documents of valid successful bidders will be verified with the original before signing the agreement. The valid successful bidder has to provide the originals to the concerned authority.
  - i. The department will not be responsible for delay in online submission due to any reason.
9. All the required information for bid must be filled and submitted online.
10. Other details can be seen in the bidding documents.
- B. Details of documents to be furnished for online bidding
  1. Scanned copies of the following documents to be up-loaded in pdf format on the website <http://meghalayatenders.gov.in>.
    - i. D. D. towards Tender fee.
    - ii. Duly pledged EMD (Annexure)
    - iii. GST certificate.
    - iv. PAN Card
    - v. Firm's registration certificate/ Registration certificate of MSME of Meghalaya.
    - vi. Certificate issued by Industry Dept. or MNRE for system manufacturing or Registration Certificate issued from Department of Energy, Govt. of Meghalaya.
    - vii. Audited Balance sheet of last three years.
    - viii. Test certificate of Battery.
    - ix. IEC/IS certificate of Electronics

2. Scanned copies of the Annexure as per the enclosed formats should be uploaded after converting the same to .pdf format.
  - i. Annexure-1 : Covering letter.
  - ii. Annexure-2 : Information about the bidding firm.
  - iii. Annexure-3 : Declaration by the bidder.
  - iv. Annexure-4 : Annual Turn over.
  - v. Annexure-5 : Net Worth certificate.
  - vi. Annexure-6 : Format for power of attorney for signing of bid.
  - vii. Annexure-7: Proof of supply/execution of SPV Items/systems in any SNA/Govt. organization/PSU in the last seven years. Attach copy of orders & its satisfactory completion certificate.
  - viii. Annexure-8: Technical details & make of the Equipments to be supplied.
  - ix. Annexure-10 : Bank Guarantee Format for EMD
  - X. Annexure-14: Contact Person for the NIB
  - xii. Annexure-15: Checklist for technical bid
3. Duly filled in & digitally signed Price Bid.
4. Uploaded documents of valid successful bidders will be verified with the original before signing the agreement. The valid successful bidder has to provide the originals to the concerned authority on receipt of such letter, which will be sent through registered post.

### **SECTION-3**

**NIB No. MNREDA/1599/2014 (Pt-I)/109**

#### **Notice Inviting Bid**

**Sub: Design, Supply, Installation & Commissioning including 5 Years Operation and Maintenance (O&M) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

#### **Preamble:**

**“Design, Supply, Installation & Commissioning including 5 Years Comparative Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya”** for short listing of experienced & eligible bidders to whom work shall be allocated for successful execution of the project in a defined time frame.

#### **Part –I: -The Technical Conditions:**

The bidder should fulfill the following Technical eligibility conditions: -

1. The bidder should be MNRE approved Channel Partner/ MNRE approved manufacturer/ MNRE approved PV System integrator/A registered manufacturing company/Firm/Corporation in India (Including MSME of Meghalaya) / at least one of the major sub systems namely Battery or PV System Electronics (Conforming to relevant National/ International Standards) or Electrical Contractor (Class-I) of Dept. of Power, Govt of Meghalaya. The bidder shall furnish either relevant MNRE certificate or concerned Industry Department certificate or Registration Certificate issued from Department of Power, Govt. of Meghalaya along Electrical Contractor license.
2. The bidder should be a functional organization. To substantiate this claim, the bidder should submit the copy of audited account for last 3 years ending 31.03.2019, whichever is applicable. These audited accounts should be duly certified by the Statutory Auditor with his stamp.
3. Registered Micro, Small & Medium Enterprise (MSME) of Meghalaya should submit the attested copy of Registration given by the Industry Department, Govt. of Meghalaya. The MSME should be functional & having running production unit of the Meghalaya and should fulfill all the criteria as fixed in latest Meghalaya Procurement Policy. The corporate office or the head office of the MSME must be located in the State of Meghalaya. The manufacturing unit of the MSME must be located in Meghalaya State.
4. The bidder must be in possession of valid test report of battery from any other test Centre approved by MNRE/NABL. The valid test certificate should be submitted along with bid.
5. Batteries should fulfil the requirement as per specification given at Technical Specification for Capacity Test, Charge/Discharge efficiency, Self-Discharge as per MNRE requirements and valid test reports with authorization letter of the manufacturer should be uploaded as annexure. The certificate should be in a form of an undertaking letter from the manufacturer complying all the technical specifications of battery. The offered batteries shall be standard make, specifications of any reputed brand approved and certified by MNRE. The bidder has to supply the battery of same make, specification and manufacturing brand for which test reports submitted in the tender otherwise the work order & agreement shall be terminated, the security deposit shall be forfeited, and the bidder firms shall be black listed. Bidder may submit test certificate of three makes of batteries of MNRE approved and has to submit the authorization from each of the manufacturer along with the test certificate.
6. The bidder should sign MoU with parties having valid GST registration in Meghalaya, trading

license of Meghalaya (copies to be attached) to carry out the installation and commissioning and CMC on a Non-Judicial stamp paper of value not less than Rs. 100 and notarise it and submit the copy of a MOU along with the bid.

7. The Bidder should confirm that they have the resources and capability to supply the offered quantity within the scheduled period in the form of an undertaking.
8. Bidders have to download the bid document from website ([www.meghalayatenders.gov.in](http://www.meghalayatenders.gov.in)) and submit the scan copy of the cost of the bid document to be submitted in shape of demand draft of requisite value as mentioned in Section-1 (List of Important dates & details of Bids) in favour of "**Director, MNREDA**" from any Indian Nationalized Bank/Scheduled Bank, payable at "Shillong". The tender fee in original must be submitted from dated: 06.11.2019 to 27.11.2019 by 13.00 Hrs IST in the office of MNREDA HQ.
9. Bidders should submit in Part – I (Technical Bid) the earnest money in the form of Bank Guarantee of requisite value as mentioned in "Section-1 (List of Important dates & details of Bids)". The Bank Guarantee shall be made in favour of "Director, MNREDA" payable at Shillong from any Indian Nationalized bank/Scheduled bank. The bank guarantee shall remain valid for 12 months from date of awarding the contract. Only Original Bank Guarantee shall be accepted. The EMD fee in original must be submitted from **06.11.2019 to 27.11.2019 by 12.00** Hrs in the office of MNREDA HQ, Shillong.
10. **Allocation of work:** The lowest rate i.e. L1 received would be the appropriate rate for awarding the work, rest L2, L3 will be awarded based upon their confirmation to meet the L1 price as per the decision of MNREDA/MNRE.



## SECTION-4

NIB No: MNREDA/1599/2014 (Pt-I)/109

### INSTRUCTIONS TO BIDDERS Table of Clauses

<b>Clause A. General</b>		<b>Clause D. Submission of Bids</b>	
1	Scope of Bid	19	Deadline for Submission of Bids
2	Source of Funds		
3	Eligible Bidders	<b>E. Bid Opening</b>	
4	Qualification of the Bidder	20	Bid Opening
5	One Bid per Bidder	21	Process to be Confidential
6	Cost of Bidding	22	Clarification of Bids and Contracting the Employer
7	Site Visit	23	Examination of bids and
	Determination of Responsiveness		
<b>B.</b>	<b>Bidding Documents and Evaluation</b>		
		24	Correction of Errors
8	Content of Bidding Documents	25	Evaluation and Comparison of Bids
9	Clarification of Bidding Documents	26	Preference for Domestic Bidders
10	Amendment of Bidding Documents	<b>F. Award of Contract</b>	
<b>C. Preparation of Bids</b>		27	Award Criteria
11	Language of Bid	28	MNREDA Right to Accept any Bid
12	Documents Comprising the Bid	29	Notification of Award
13	Bid Prices	30	Performance Security
14	Currencies of Bid and Payment	31	Advances
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16	Earnest Money		
17	Alternative Proposals by Bidders		
18	Sealing and Marking of Bids		

**Instructions to Bidders (ITB)**

**A. General**

- 1 Scope of Bid
  - 1.1 The MNREDA invites bids for the work as described in these documents and referred to as "the works". The name and identification number of the works is provided in the Notice Inviting Bid.
  - 1.2 The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Part (I)- General Conditions of Contract.
  - 1.3 Throughout these documents, the terms "bid" and "tender" and their derivatives (bidder/ tenderer, bid/ tender, bidding/ tendering) are synonymous.
- 2 Source of Funds**
  - 2.1 The MNREDA has decided to undertake the works of "**Design, Supply, Installation & Commissioning including 5 Years Comprehension Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya**" through funds from Ministry of New and Renewable Energy, Government of India to be implemented through MNREDA.
- 3 Eligible Bidders**
  - 3.1 This Invitation for Bids is open to all bidders as defined in the Notice Inviting Bid.
  - 3.2 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the works.
- 4 Qualification of the Bidder**
  - 4.1 All bidders shall provide in Section 3, Forms of Bid and Qualification information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
  - 4.2 All bidders shall include the following information and documents with their bids in Section 3, Qualification Information unless otherwise stated in the Notice Inviting Bid/ITB.
    - a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business.
    - b) Copy of written power of attorney of the signatory of the Bid for bidding.
    - c) Total monetary value of the similar nature of the works performed for each of the last seven years;
    - d) Experience in works of a similar nature and size for each of the last seven years with certificates from the concerned officer or competent authority.
    - e) Audited reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the last three years along with ITR.
    - f) Authority to seek references from the Bidder's bankers;
    - g) Information regarding any litigation or arbitration during the last seven years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter;
  - 4.3 Bids from joint venture and consortium are allowed only for Technical Partnership but not for Financial.

4.4.A To qualify for award of the Contract, each bidder should meet the following criteria:

**a) Annual Turn Over:**

**For General Bidder:** Bidder should have the minimum average Annual Turnover of **25% of Bid Capacity** derived from the last three financial years ending on 31.03.2019 on the basis of audited annual accounts.

**For MSME of Meghalaya:** Bidder should have the average Annual Turnover of **10% of Bid Capacity** derived from the last three financial years ending on 31.03.2019 on the basis of audited annual accounts.

The certificate should be issued by CA who has performed audit of accounts with UID no. as per the Performa given at **Annexure-4**

**b) Net worth Requirement:**

**For General Bidder:** Bidder should have Positive Net Worth of minimum **10% of Bid Capacity** as on 31.03.2019 on the basis of audited annual accounts.

**For MSME of Meghalaya:** Bidder should have Positive Net Worth of minimum **5% of Bid Capacity** as on 31.03.2019 on the basis of audited annual accounts.

Net worth certificate should be issued by CA who has performed audit of accounts with UID no. as per the Performa given at **Annexure-5**

**c) Experience:**

**For General Bidder:** Bidder should have experience of successfully Installation, Comparative Maintenance Contract (CMC) of atleast cumulative **500 kWp capacity of Off-Grid Solar Power Plant with post 5 Years of AMC period**, having successfully installation record in any SNA / Govt. Organization / PSU / Autonomous Bodies etc. in the last seven years ending up to date of advertisement of this tender.

**For MSME of Meghalaya:** Bidder should have experience of successfully installation and operation of atleast **25 kWp Solar Power Plant with post 5 Years of AMC** (if any) in any SNA / Govt. Organization / PSU / Autonomous Bodies etc. in the last seven years ending up to date of advertisement of this tender.

The copy of order and certificate indicating its successful execution should be enclosed with the checklist as at **Annexure-7**.

**4.4.B (a) Each bidder must produce:**

- i) PAN.
- ii) An affidavit that the information furnished with the bid documents is correct in all respects; and
- iii) Such other certificates as defined in the Notice Inviting Bid. Failure to produce the certificates shall make the bid non-responsive.

**4.4 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:**

- i) made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
- ii) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures

- iii) Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to MNREDA.

## **5 One Bid per Bidder**

- 5.1 Each Bidder shall submit only one Bid for one work. A Bidder who submits more than one Bid will be disqualified.

## **6 Cost of Bidding**

- 6.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the MNREDA will, in no case, be responsible or liable for those costs.

## **7 Site Visit**

- 7.1 The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarize himself with the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for supply & installation of the Works. The costs of visiting the Site shall be at the Bidder's own expense. He may contact the person whose contact details are given in the Notice Inviting Bid.

## **B. Bidding Documents**

### **8 Content of Bidding Documents**

- 8.1 The set of bidding documents comprises the documents listed below, and addenda issued in accordance with Clause 10 of ITB.

1. Notice Inviting Tender
2. Instructions to Bidders
3. Qualification Information
4. Conditions of Contract
5. Specifications
6. Bill of Quantities
8. Form of Bid
9. Form of Bank Guarantee.

- 8.2 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms and specifications, bill of quantities, forms in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 23 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

### **9 Clarification on Bid Documents and Pre-bid Meeting:**

- 9.1 A prospective Bidder requiring any clarification of the bid documents may notify to the MNREDA in writing at the MREDA's address indicated in the Notice Inviting Tenders. MREDA's response will be uploaded in form of corrigendum on our website [www.mnreda.gov.in](http://www.mnreda.gov.in).
- 9.2 Pre-bid meeting will be held on **13.11.2019** at **10.30 Hrs IST** in the Conference Hall of MNREDA. The bidder or his authorized representative may attend the meeting.
- 9.3 The purpose of such a meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

- 9.4 The bidder is requested to submit any questions in writing or by e-mail so as to reach the MNREDA not later than two days before the meeting.
- 9.5 Any modifications of the bid document listed in Clause 8.1 of ITB, which may become necessary as a result of the pre-bid meeting shall be made by the MNREDA exclusively through the issue of an Addendum/Corrigendum pursuant to Clause 10 of ITB on website.

## **10 Amendment of Bidding Documents**

- 10.1 Before the deadline for submission of bids, the MNREDA may modify the bidding documents by issuing addenda/corrigendum.
- 10.2 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the MNREDA shall extend, if necessary, the deadline for submission of bids, in accordance with Clause 19.2 of ITB.

## **C. Preparation of Bids**

### **11 Language of Bid**

- 11.1 All documents relating to the Bid shall be in the language specified in the Notice Inviting Bid (NIB).

12 Documents Comprising the Bid

## **A. Technical Bid – (Fee/Pre-Qualification/Technical Cover)**

### **1) EMD & Tender Fee**

- a) Scanned Copy of Demand draft drawn in favour of "DIRECTOR, MNREDA", payable at Shillong towards Cost of Tender Fee and Earnest Money Deposit as specified in the Notice Inviting Bid.

### **2) Technical Details & Declaration**

- a) Proposed work programme (work method, time schedule and financial flow), description, and charts as necessary (Duly to be signed digitally) to comply with the requirement of the Bidding Document.

### **3) Technical Details of documents**

Scanned copies/Prescribed Formats of Documents to be attached in "My Document" in .pdf format file duly digitally signed by the bidder.

- a) PAN Card
- b) GST certificate.
- c) Proof of completion of similar works during the last 7 years and list of similar works in hand in the prescribed formats duly signed by the competent authority of the issuing Department.
- d) List of works for which bids already submitted.
- e) Audited financial Report for the last 3 years (upto 31.03.2019) certified by chartered Accountant.
- f) Annual Turn over Details certified by Chartered Accountant.
- g) Net worth certificates certified by Chartered Accountant.
- h) List of current litigant cases in which the bidder is involved.
- i) An affidavit for non-engagement of related persons.

- j) Proof of test certificates of batteries and latest test certificate should confirm as per MNRE specifications which are available on MNRE website. The valid test certificate should be submitted along with bid.
- k) Authorized address & contact numbers of the bidder as per instruction in the Notice Inviting Bid duly digitally signed.
- l) Undertaking of Bidder that he is able to invest minimum of cash upto 10% as defined in ITB.
- m) Undertaking for validity of bid for 120 days.

**B – Financial Bid – (Finance Cover)**

- i) Duly Quoted & digitally signed Bill of Quantity (BoQ) in the file supplied by MNREDA in .xls format shall be uploaded.
- ii) Declaration by Bidder in the format Section – 6 form of Bid in .pdf format.

**NOTE:** - a) All the documents should be digitally signed.

12.2 The following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Section Particulars

- i. Notice inviting Tender
- ii. Instruction to the bidders
- iii. Conditions of Contract
- iv. Contract Data
- v. Specifications

**13 Bid Prices**

- 13.1 The Contract shall be for the whole Works, as described in Clause 1.1 of ITB.
- 13.2 The Bidder shall adopt the Item Rate Method as specified in the Notice Inviting Bid only the same option is allowed to all the Bidders.
- 13.3 All duties, taxes, royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder.
- 13.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment.
- 13.6 Tenderers should quote their rates considering wide variation of site conditions, variation in price of different components and keeping the quantum and quality of work in mind. If MNREDA anticipates that rate is abnormally low or high, tender may be cancelled.

**14 Currencies of Bid**

- 14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees (INR).

**15 Bid Validity**

- 15.1 Bids shall remain valid for a period of 120 (One hundred Twenty) days after the deadline date for bid submission specified in Clause 19 of ITB or till completion of the project, whichever is earlier. A bid valid for a shorter period shall be rejected by the MNREDA as non-responsive.

- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the MNREDA may request to the bidders for extension of the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his Earnest Money. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his earnest money for a period of the extension, and in compliance with Clause 16 of ITB in all respects.

## **16 Earnest Money**

- 16.1 The Bidder shall furnish, as part of the Bid, Earnest Money, in the amount specified in the Notice Inviting Bid.
- 16.2 The Earnest Money shall, at the Bidder's option, be in the form of Bank Guarantee/Demand Draft of a scheduled commercial bank, issued in favour of the name given in the Notice Inviting Bid. The Bank Guarantee shall be valid for 12 months or more after the last date of receipt of bids.
- 16.3 Any bid not accompanied by an acceptable Earnest Money, unless exempted in terms given in the Notice Inviting Bid, shall be rejected by the MNREDA as nonresponsive.
- 16.4 The Earnest Money of unsuccessful bidders will be returned within 30 days of the end of the Bid validity period specified in Clause 15.1 of ITB.
- 16.5 The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Security Deposit.
- 16.6 The Earnest Money may be forfeited:
- a) if the Bidder withdraws the Bid after bid opening during the period of Bid validity;
  - b) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
    - i. sign the Agreement; and/or
    - ii. Furnish the required Performance Security and Security Deposit.

## **17 Alternative Proposals by Bidders**

- 17.1 Bidders shall submit offers that comply with the requirements of the bidding documents, including the Bill of Quantities and the basic technical design as indicated in the drawings and specifications. Alternative proposals will be rejected as non-responsive.

### **D. Submission of Bids**

## **18 Sealing and Marking of Bids**

- 18.1 The Bidder shall place the two separate Envelope (Envelope-I) marked "Technical Bid" and "Financial Bid" (Envelope- II). The Envelope will have markings as follows:
- Technical Bid:** To be opened on (date and time of Technical Bid opening as per clause 20.1 of ITB.)
- Financial Bid:** The contents of the Technical and Financial Bids shall be as specified in clause 12.1of ITB. All documents are to be signed digitally by the bidder.
- 18.2 The first and second files containing the Technical and Financial Bids shall a) be addressed to the MNREDA at the address provided in the Notice Inviting Bid b) bear the name and identification number of the Contract as defined in clause 1.1 of ITB; and c) provide a warning not to open before the specified time and date for Bid opening as defined in clause 20.1 of ITB.

## **19 Deadline for Submission of Bids**

- 19.1 Complete Bids (including Technical and Financial) must be received by the MNREDA at the address specified in the Notice Inviting Bid not later than the date and time indicated in the Notice Inviting Bid.
- 19.2 The MNREDA may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10.2 of ITB, in which case all rights and obligations of the MNREDA and the bidders previously subject to the original deadline will then be subject to the new deadline.

## **E. Bid Opening and Evaluation**

### **20 Bid Opening**

- 20.1 The MNREDA will open the bids received (except those received late). In the event of the specified date for the submission of bids being declared a holiday for MNREDA, the Bids will be opened at the appointed time and location on the next working day.
- 20.2 The Envelope containing the technical bid shall be opened. The document marked "cost of bidding document" will be opened first and if the cost of the bidding documents is not there, or incomplete, the remaining bid documents will not be opened, and bid will be rejected.
- 20.3 In all other cases, the amount of Earnest Money, forms and validity shall be announced. Thereafter, the bidders' names and such other details as the MNREDA may consider appropriate, will be announced by the MNREDA at the opening.
- 20.4 The MNREDA will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Clause 20.3 of ITB.
- 20.5 Evaluation of the technical bids with respect to bid security, qualification information and other information furnished in Part-I of the bid in pursuant to Clause 12.3 of ITB, shall be taken up and completed and a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.
- 20.6 The MNREDA shall inform, by email, the bidders, whose technical bids are found responsive, date, time and place of opening as stated in the Notice Inviting Bid. In the event of the specified date being declared a holiday for the MNREDA, the bids will be opened at the appointed time and location on the next working day through they or their representative, may attend the meeting of opening of financial bids.
- 20.7 At the time of the opening of the 'Financial Bid', the names of the bidders whose bids were found responsive in accordance with clause 20.5 of ITB will be announced. The financial bids of only these bidders will be opened. The remaining bids will be returned unopened to the bidders. The responsive bidders' names, the Bid prices, the total amount of each bid, and such other details as the MNREDA may consider appropriate will be announced by the MNREDA at the time of bid opening. Any Bid price which is not read out and recorded, will not be taken into account in Bid Evaluation
- 20.8 The MNREDA shall prepare the minutes of the opening of the Financial Bids.

### **21 Process to be Confidential**

- 21.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any



other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the MNREDA's process of bidding or award decisions may result in the rejection of his Bid.

## **22 Clarification of Bids and Contacting the MNREDA**

- 22.1 No Bidder shall contact the MNREDA on any matter relating to its bid from the time of the bid opening to the time the contract is awarded.
- 22.2 Any attempt by the bidder to influence the MNREDA's bid evaluation, by any means, bid evaluation, bid comparison or contract award decision may result in the rejection of his bid.

## **23 Examination of Bids and Determination of Responsiveness**

- 23.1 During the detailed evaluation of "**Technical Bids**", the MNREDA will determine whether each Bid (a) meets the eligibility criteria defined in Clauses 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications and drawings.
- 23.2 A substantially responsive "Financial Bid" is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the bidding documents, the MNREDA's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 23.3 If a "Financial Bid" is not substantially responsive, it will be rejected by the MNREDA, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

## **24 Corrections of Errors**

- 24.1 Bids determined to be substantially responsive, will be checked by the MNREDA for any arithmetic errors. Errors will be corrected by the MNREDA as follows:
  - a) where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
  - b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.
- 24.2 The amount stated in the Bid will be adjusted by the MNREDA in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected, and the Earnest money shall be forfeited in accordance with Clause 16.6(b) of ITB.

## **25 Evaluation and Comparison of Bids**

- 25.1 The MNREDA will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 23 of ITB.
- 25.2 In evaluating the bids, the MNREDA will determine for each Bid the evaluated Bid price by adjusting the Bid price by making correction, if any, for errors pursuant to Clause 24 of ITB.
- 25.3 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the MNREDA may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the MNREDA may require that the amount of the performance security set forth in Clause 32 of ITB be increased at the expense of the successful Bidder to a level sufficient to protect the MNREDA against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder.
- 25.4 After its evaluation, the MNREDA may require that the amount of the performance security set forth in Clause 30 be increased at the expense of the successful Bidder to a level sufficient to protect the MNREDA against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the MNREDA, which shall be final, binding and conclusive on the bidder.

## **26 Price Preference**

- 26.1 There will be no price preference to any bidder.

## **F. Award of Contract**

### **27 Award Criteria**

- 27.1 Subject to Clause 29 of ITB, the MNREDA will award the Contract to the Bidder whose Bid has been determined:
- i. to be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid price, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3 of ITB, and (b) qualified in accordance with the provisions of Clause 4 of ITB; and as per clause 14 of Notice Inviting Bid (Section-3).

### **28 MNREDA's Right to accept any Bid and to reject any or all Bids**

- 28.1 Notwithstanding Clause 27 above, the MNREDA reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the MNREDA's action without any reason.

### **29 Notification of Award and Signing of Agreement**

- 29.1 The bidder whose Bid has been accepted will be notified of the award by the MNREDA prior to expiration of the Bid validity period by email confirmed by registered letter. This letter (hereinafter and in the Part I - General Conditions of Contract called the "Letter of Acceptance") will state the sum that the MNREDA will pay to the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Contract called the "Contract Price").

- 29.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 30.
- 29.3 The Agreement will incorporate NIT document, Work order & subsequent amendments between MNREDA and the successful Bidder. It will be signed by the MNREDA and the successful Bidder after the security deposit is submitted.
- 29.4 Upon the furnishing by the successful Bidder of the Performance Security, the MNREDA will promptly notify the other Bidders that their Bids have been unsuccessful.

**30 Security Deposit:**

- 30.1 Successful General bidder shall submit a security deposit @20% of the allotted work order value in the form of Bank Guarantee valid for one year on or before 15 days from issuing work order. If Bank Guarantee will not be submitted within stipulated period from the date of issue of work order, then MNREDA shall cancel the work order.
- 30.2 Successful MSME bidders shall be required to deposit only 10% of security deposit (General Bidder) as per Meghalaya Procurement Policy.
- 30.3 The Security Deposit shall be refunded / released to the bidder after expiry of 90 days from the actual date of successful completion.
- 30.4 The Security Deposit will have to be maintained by the bidder with MNREDA till the completion of warrantee period.

**31 Performance Guarantee:**

- 31.1 Successful General bidder
- 31.2 shall submit a performance guarantee @5% of the allotted work order value in the form of Bank Guarantee valid for five years on or before release of any payment.
- 31.3 Successful MSME bidders shall submit a Performance Guarantee @2.5% of the allotted work order value in the form of bank guarantee before release of payment.
- 31.4 The Performance Guarantee will have to be maintained by the bidder with MNREDA till the completion of warrantee period.
- 31.5 The Security Deposit/Performance Guarantee shall be submitted in the form of bank guarantee in favour of "Director, MNREDA" payable at Shillong from any Indian Nationalized bank/Scheduled bank.
- 31.6 Non-submission of Security Deposit/Performance Guarantee within the time frame, shall lead to forfeiture of EMD and cancellation of LOI/LOA.
- 31.7 If Bidder/MSME unit fails to carry out the work allotted to him as per the provisions of the tender documents, then such Bidder/MSME unit may be black listed for future awards of work.

**32 Five Years Comprehensive Maintenance Contract (CMC):**

- 32.1 The SPV Power Plant contract price includes the provision of 5 years mandatory Comprehensive Maintenance Contract (CMC). To ensure long term sustainability of the system, the bidder must provide his representatives name, full address, mobile number and photographs to MNREDA with one hard copy as well as the names and contact details of all technicians must also be provided. Failure to do shall invite penalty and action.
- 32.2 The Comprehensive Maintenance Contract shall include servicing & replacement guarantee for parts and components (such as battery, electronics, Inverter, existing PV modules and other hardware) running, operation and maintenance of SPV Power Plant for five years from the date of installation. Battery should be warranted for a minimum life of 5 years. The contractor have to make suitable

arrangement for running, operation and maintenance of SPV Power Plant by deputing electrician and other persons required in the plant 24 x 7 so that all the SPV Power Plants are functional every day. The date of CMC maintenance period shall begin on the date of actual commissioning of SPV Power Plants. It is mandatory for the contractor to carry out CMC regularly and submit report to MNREDA monthly. Failure to submit monthly CMC reports timely shall invite penalty and action.

323 The Contractor should have sufficient numbers of skilled staff for proper maintenance of solar power plant & street lights. The bidder should submit a work plan for implementation of the work and details of person/staff to be deployed for CMC work.

**33 Preventive/Routine Maintenance:**

This shall be done by the supplier/contractor at least once in every month and shall include activities such as, cleaning and checking the health of the SPV system, cleaning of module surface, topping up of batteries, tightening of all electrical connections, regular checks to identify any leakage of electricity, changing of tilt angle of module mounting structure, cleaning & greasing of battery terminals and any other activity that may be required for proper functioning of the Solar Photovoltaic Power Plant. The maintenance record should be kept properly and to be submitted at MNREDA office time to time. CMC documents should be certified by Beneficiary. ***The Monthly maintenance record shall also indicate the energy generated during month.***

**34 Breakdown / corrective Maintenance:**

Whenever a complaint is lodged by the user the bidder shall attend the same immediately. It is clarified that effective CMC means that the bidder should ensure 24 hours smooth working of all the solar street lighting throughout the CMC period and therefore, if any complaint in this level of service is found by the MNREDA officials and if the bidder do not attempt the rectification of any such defect within three days of communication of such complaint to the bidders, the bidder will be liable for a penalty of Rs. 100 per day beyond three days of reporting of such complaint.

**35 Advances**

35.1 The MNREDA will not provide Mobilization Advance and Advance against the security of equipment as provided in Part I - General Conditions of Contract.

**36 Corrupt or Fraudulent Practices**

The MNREDA requires the bidders/Contractors to strictly observe the laws against fraud and corruption in force in India, namely, Prevention of Corruption Act, 1988.

**37 Timeline/ Completion Period:**

The time of completion shall be adhered as per the timeline defined in the table below:

Sr. No.	Work	Completion Period/Start time
1	supply, installation, testing & commissioning of Battery and junction Box in all respects in good conditions as per NIT.	4 Months from issuance of Work Order.
2	CMC Work	<b>From date of Plant Completion Certificate by MNREDA. The CMC of all Plants shall be for 5 Years from date of commissioning date of the plant.</b>

## SECTION-5

### **General Terms & Conditions**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

#### **1.0 Introduction:**

The instruction/information contained in the bid documents are for guidance and compliance of the intending bidder. Bidders are advised to obtain clarification from MNREDA, if any, prior to submission of their bid, failing which it will be deemed that the stipulation made in the bid documents have been read, understood and are acceptable to the bidder.

Bidder shall bear all costs associated with the preparation and submission of the bid, journeys undertaken by them and subsequent bidding process till the award of the order to successful bidder and the MNREDA shall in no case, shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

#### **2.0 Scope of work:**

**The Scope of work includes” Design, Supply, Installation & Commissioning including 5 Years Comparative Maintenance Contract (O&M) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya”** in all respects as per the direction of MNREDA.

**The Scope of Work is as mentioned below: -**

- i. Design, Supply, Installation & Commissioning including 5 Years Operation and Maintenance (O&M) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.
- ii. The contract price includes the provision of 5 years operation and mandatory Comprehensive Maintenance Contract (CMC) to ensure long-term sustainability of the system. The contractor should provide his representative’s name, full address, mobile number, and photographs to MNREDA with one hard copy.
- iii. The Operation and Maintenance shall include ensuring operation of system on day to day basis. The system should be operational from evening to morning with full illumination. The contract shall include ensuring servicing & replacement guarantee for parts and components (such as battery, electronics, Inverter, PV modules and other hardware of SPV SPP for five years. Battery should be warranted for a minimum life of 5 years. The date of CMC shall begin from the date of issuance of work order for CMC contract. It is mandatory for the contractor to carry out CMC regularly and submit report to MNREDA on monthly basis.
- iv. **Preventive/Routine Maintenance:**  
This shall be done by the Contractor once in every three months and shall include activities such as, cleaning and checking the health of the SPV system, cleaning of module surface, topping up of batteries, tightening of all electrical connections, regular checks to identify any leakage of electricity, changing of tilt angle of module mounting structure, cleaning & greasing of battery terminals and any other activity that may be required for proper functioning of the SPV SPP. The maintenance record should be kept properly and to be submitted at MNREDA office time to time.
- v. **Breakdown/Corrective Maintenance**  
Contractor shall ensure 24 hours smooth operation of Solar Power Plant throughout the CMC period by attending breakdown/routine maintenance immediately. if any complaint regarding system service is found by the MNREDA officials and if the Contractor do not attend the rectification of any such defects within three

days of communication of such complaint to the contractors, the Contractor will be liable for a penalty of Rs.200 per day beyond three days of reporting of such complaint.

**vi. Deployment of Manpower/Equipment**

Successful bidder shall deploy following manpower for smooth operation of all the SPV Plant along with Street Light:

S.N.	Manpower	No.
1	Engineer	5
2	Technician	5
3	Helper	5
4	Guard	-
<b>Total</b>		<b>15</b>

**3.0 Bid documents:**

Tender documents shall comprise of all the documents mentioned in this Bid. In addition to these any other documents/amendments/revisions or instructions issued by MNREDA from time to time to bidders till due date of opening of the offers, shall also be deemed to be integral part of the bid document.

**4.0 Price:**

The bidder shall quote his price as per schedule of items of work. The contract price rates shall be firm and binding and shall not be subject to any variation except for statutory variation of taxes and duties during the contractual completion period. **The price shall be inclusive of all taxes & charges and 5 years Comprehensive Maintenance Contract (CMC) as on the opening date of tender.** The price shall also include designing, manufacturing, inspection, supply, transport, insurance, handling etc. All applicable charges for taking necessary clearance such as commercial tax, road permit etc. wherever required are also deemed to be included in the contract price.

**5.0 Inspection of the factory and Tests:**

MNREDA reserves the right to inspect manufacturer's works/factory to ascertain the capability/availability of necessary equipment and infrastructure required for manufacture of the items offered. MNREDA shall have the access and right to inspect the work or any part thereof at any stage and to test the goods to confirm their conformity to the technical specifications. Successful bidder shall inform MNREDA at least 15 days in advance of schedule dispatch for technical sample audit.

**6.0 Payment terms and conditions:**

Subject to any deduction which MNREDA may be authorized to make under this contract, the contractor shall be entitled to payment as follows:

- (a) **70%** of the Contract Price shall be paid against supply, installation, testing & commissioning of Battery and junction Box in all respects in good conditions of the work as certified by Consignee & MNREDA Officials after submission of following documents:
  - i. Original Commercial invoice raised from the state of Meghalaya for the supply, installation, testing & commissioning of the systems made in triplicate (1+2).
  - ii. Copy of duly raised delivery challan / transportation challan /lorry receipt.
  - iii. Duly filled **Annexure-12** should be submitted in three sets (one for Consignee record, one for MNREDA HQ. and one for MNREDA's field Executive Engineer).
  - iv. Photographs of all the systems in working conditions with signature & seal of Consignee & MNREDA Officials.
- (b) **5%** of the Contract Price shall be paid after 06 (Six) months against successful operation of Battery and junction Box in all respects in good conditions as certified by

MNREDA Officials after submission of following documents:

- i. Original Commercial invoice raised from the state of Meghalaya for the supply, installation, testing & commissioning of the systems made in triplicate (1+2).
- (c) **25%** CMC amount shall be paid on equal basis on completion of every year for the 5-year CMC period, after submission of following documents:
  - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
  - ii) Submission of monthly reports of CMC undertaken by the successful bidder as per **Annexure-13**.

The payment for the above shall be made subject to availability of the fund from MNRE for the said work.

#### **7.0 Dispatch Instructions:**

All items/equipments shall be subject to Pre-Dispatch Inspection (PDI) by MNREDA or its authorized representatives at the manufacturing site before their dispatch. The manufacturing site must have sufficient testing facilities. The manufacturer will submit test report with regard conformity to technical specifications and details of materials in prescribed format for the items to be dispatched to work site of MNREDA. However, equipments will be dispatched from the manufacturing site only after the receipt of "Dispatch Clearance" from MNREDA after acceptance of test report. No consignment shall be dispatched without the receipt of dispatch clearance from MNREDA. No PDI shall be done at any site other than the concerned manufacturing site. Successful bidders have to arrange necessary equipments for testing the materials to be supplied during the pre-dispatch inspection by MNREDA at their manufacturer's unit. Failure to fulfill the PDI conditions shall lead to cancellation of work order and forfeiture of security deposit.

Supply, Installation & Commissioning for the above work must be completed in all respect within **120 days** from the date of issue of the work order including Pre-Dispatch Inspection (PDI) of the materials.

#### **8.0 Liquidated Damages for Delay in Completion & CMC:**

If the supplier fails in the due performance of the contract to deliver any part of the equipment or complete the work within the time fixed under the contract or any extension thereof granted to him by MNREDA and/or to fulfill his obligations in time under the contract, he shall be liable to pay to MNREDA @0.5% per week maximum up to 10% of work value delayed beyond contract period. The same will be applicable if monthly CMC report will not be submitted within a week of due date.

#### **9.0 Risk & Cost:**

If the contractor fails to complete the awarded work from the scheduled date of completion then MNREDA will be at liberty to cancel the said work order and will get the full or part of left over work to be completed by way of engaging alternate contractor and completion of the said work shall be got completed at risk & cost of the failed contractor and failed contractor shall be liable to pay all the dues to MNREDA.

#### **10.0 Insurance:**

The supplier shall arrange for transit and erection insurance of the materials & equipments for setting up of Solar Photovoltaic System. **The supplier shall also arrange for insurance of materials & equipments up to CMC period.** In case of any theft or damage of equipment during CMC period the same will be responsibility of supplier to get it rectify at their own cost.

#### **11.0 Assignment/ Sub-letting:**

The Manufacturer shall not assign or sublet, manufacture, shop testing, packing & forwarding, transportation, transit insurance, supply in whole or part, and its obligations to any third party to perform under the order/contract.

In the event the manufacturer contravenes this condition, MNREDA reserves the right to reject the equipment/work contract and procure the same from elsewhere at manufacturer's risk

and cost. The Manufacturer shall be solely liable for any loss or damage which MNREDA may sustain in consequence or arising out of such replacing of the contract work.

**12.0 Completeness of Tender:**

All fittings, assemblies, accessories, hardware items etc. & safety and protection devices as required shall be deemed to have been included in the tender, whether such items are specifically mentioned in the BoM or not.

**13.0 Compliance with Regulations:**

The supplier/contractor shall comply with all applicable laws or ordinances, codes approved standards, rules and regulations and shall procure all necessary municipal and/or other statutory bodies and government permits & licenses etc. at his own cost. The contractor shall leave the purchaser, Director, MNREDA harmless as a result of any infractions thereof.

**14.0 Agreement:**

The successful qualified suppliers shall have to enter into an agreement in the office of the Director, MNREDA, in prescribed format before commencement of supply within 7 (Seven) days with required Security Deposit.

**15.0 Income Tax:**

Without prejudice to the obligations of the supplier under law, any income tax which MNREDA may be required to deduct by law/statute, shall be deducted at source and shall be paid to income tax authorities on account of the supplier. MNREDA shall provide the supplier a certificate for such deductions of tax.

**16.0 Training Program, After Sales Service and Availability of Spare Parts:**

**16.1** The responsibility of organizing training program will rest on the successful bidder. The training program will be organized in consultation with MNREDA/Consignee. The training program will focus on operation and maintenance of the system. Printed leaflet/literature should be made available in Hindi by the Supplier regarding the operation and maintenance of their Solar Power Plant.

**16.2** The Supplier shall depute authorized Service Engineer within 7 days from the date of the intimation of fault and establish sufficient inventory of spares in the State in consultation with MNREDA to provide satisfactory and uninterrupted services during the warranty period.

**17.0 Force Majeure conditions:**

In the event of either party being rendered unable by force majeure to perform any obligation required to be performed by them under this agreement, relative obligation of the party affected by such force majeure shall be treated as suspended during which force majeure condition last.

The term force majeure shall have herein mean riots (other than among the contractor's employee), civil commotion, war (whether declared or not), invasion, act of foreign enemies hostilities, rebellion, insurrection, military coup to usurp power, act of god such as earthquake, lightning, floods, fires not caused by contractor's negligence and other cause which the contractor has no control and accepted as such by the Director, MNREDA, whose decision shall be final and binding.

If the work is suspended by force majeure conditions lasting for more than 45 days, the purchasers shall have the option of canceling this contract in whole or part thereof, at its discretion. The contractor shall not claim for compensation for force majeure conditions.



**18.0 Cancellation of Work Order:**

MNREDA will be at liberty to terminate/blacklist in part or full the awarded contract and / forfeit security deposit and/or performance guarantee without prejudicing its rights and affecting the obligations of the Contractor by giving 15 (Fifteen) days notice in writing in the following events:

- (a) If the contractor/supplier is found defaulter for delayed supply, installation & commissioning or failure to deliver satisfactory performance or supply of substandard materials.
- (b) If the contractor/supplier fails to comply with the provision(s) of the contract including the responsibilities to fulfill the 5 years CMC as per the provisions mentioned.
- (c) If the Contractor/vendor is involved in any action of moral turpitude.
- (d) While taking decisions for blacklisting of the bidder, his past performance shall also be taken into account.

**19.0 Jurisdiction of the Court:**

All disputes would be settled within Shillong jurisdiction of court of law only.

**SECTION-6**  
**Technical Specification**  
**NIB No: MNREDA/1599/2014 (Pt-I)/109**

**A. Technical Specification of SOLAR PV Power Plant**

**Detailed Technical Specifications of components:**

SL.No.	Item description																																								
<b>1.</b>	<b>SCOPE OF WORK</b>																																								
1.1	Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of cumulative 25 kWp Off-Grid SPV Power Plants at Different Locations in the State of Meghalaya.																																								
1.2	Detailed planning of smooth execution of the project																																								
1.3	Testing, Installation & commissioning of the complete system up to AC Distribution Board																																								
1.4	Training of the staff deputed by MNREDA, Shillong as well as Local Operator of the Firm																																								
1.5	Contract for 5years including break down maintenance.																																								
	<b>SPECIFICATIONS OF MAJOR COMPONENTS OF THE SYSTEM</b>																																								
<b>1</b>	<p><b>SPV ARRAY:</b>  The Solar PV Modules shall be of made of Multi Crystalline Silicon Solar Cells and of capacity 250 Wp or above with Solar cells of 60/72 nos. connected in series to give required 250 Wp or above Solar Modules. For the 25 kWp Solar PV Power plant, the SPV Modules shall be of 24 V, 250 Wp or above as per IEC standard. The blocking diodes prevent discharge of the Battery Bank at night through the source circuit. <b>Net Metering is to be installed to record import-export energy, as per the provisions of Meghalaya State Electricity regulatory Commission (MSERC).</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">TECHNICAL SPECIFICATION OF SPV MODULE:</th> </tr> </thead> <tbody> <tr> <td>Model No.</td> <td>:</td> </tr> <tr> <td>Type</td> <td>: Multi-Crystalline Silicon Solar Module</td> </tr> <tr> <td>Cell size</td> <td>: +/-156mm x 156mm</td> </tr> <tr> <td>Cell Qty.</td> <td>: 60/72 pcs.</td> </tr> <tr> <td>Module size</td> <td>: +/- 1939mm x 982mm x 42 mm</td> </tr> <tr> <td>Junction Box</td> <td>: Four Terminals with IP65 Protection</td> </tr> <tr> <td>Diode</td> <td>: 15A15 bypass</td> </tr> <tr> <td colspan="2">Nominal Rating: 24 V, 250W or above under STC</td> </tr> <tr> <td>Vmax</td> <td>: &gt; 31.0V</td> </tr> <tr> <td>Imax</td> <td>: &gt; 8.0A</td> </tr> <tr> <td>Voc</td> <td>: &gt; 36.00V</td> </tr> <tr> <td>Isc</td> <td>: &gt; 8.5A</td> </tr> <tr> <td>FF</td> <td>: &gt; 70.00%</td> </tr> <tr> <td>Efficiency (Module)</td> <td>: &gt; 14.00%</td> </tr> <tr> <td>Power Tolerance</td> <td>: ± 3%</td> </tr> <tr> <td>RFID Tag</td> <td>: Inside the lamination</td> </tr> <tr> <td colspan="2">PV Module standard: IEC 61215 and IEC 61730-1 &amp; IEC 61730-2</td> </tr> <tr> <td>Weight</td> <td>: 22.0 kg. (approximate)</td> </tr> <tr> <td colspan="2">RFID Tag: The PV module will have a RF Identification tag (RFID), which will</td> </tr> </tbody> </table>	TECHNICAL SPECIFICATION OF SPV MODULE:		Model No.	:	Type	: Multi-Crystalline Silicon Solar Module	Cell size	: +/-156mm x 156mm	Cell Qty.	: 60/72 pcs.	Module size	: +/- 1939mm x 982mm x 42 mm	Junction Box	: Four Terminals with IP65 Protection	Diode	: 15A15 bypass	Nominal Rating: 24 V, 250W or above under STC		Vmax	: > 31.0V	Imax	: > 8.0A	Voc	: > 36.00V	Isc	: > 8.5A	FF	: > 70.00%	Efficiency (Module)	: > 14.00%	Power Tolerance	: ± 3%	RFID Tag	: Inside the lamination	PV Module standard: IEC 61215 and IEC 61730-1 & IEC 61730-2		Weight	: 22.0 kg. (approximate)	RFID Tag: The PV module will have a RF Identification tag (RFID), which will	
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	<p>contain the following information. The RFID will be inside the module laminate to withstand harsh environmental condition:</p> <p>a) Name of the manufacturer of PV Module</p> <p>b) Name of the manufacturer of Solar Cells</p> <p>c) Month and year of the manufacture (Solar Cell &amp; Module)</p> <p>d) Country of Origin (Solar Cell &amp; Module)</p> <p>e) I-V curve for the module</p> <p>f) Peak Wattage, <math>I_m</math>, <math>V_m</math> and FF for the module</p> <p>g) Unique Serial No. &amp; Module No. of the Module</p> <p>h) Model or Type Number</p> <p>i) Date &amp; year of obtaining IEC PV Module Qualification Certificate</p> <p>j) Name of the Test Lab issuing IEC Certificate</p> <p>k) Other relevant information on traceability of the Solar Cell &amp; Modules as per ISO.</p> <p>script to be screen printed in indelible ink or paint on the back side of each PV</p> <p><b>Module:</b> Solar Photo Voltaic Program</p> <p><b>Warranty:</b> PV modules used in solar PV power plants/systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 Years and 80% at the end of 25 Years.</p>
2.	<p><b>MODULE MOUNTING STRUCTURE:</b></p> <p>The mounting structure shall have to be designed by the Contractor after spot verification. The module mounting structures should be made of Aluminium/Hot dip galvanized MS angles of size 50 mm x 50 mm x 6 mm. The thickness of galvanization is 80 microns. All the nuts, bolts are made of good quality Stainless Steel (SS). Space must be provided in between rows for proper maintenance and cleaning. Mounting Structure must be designed to withstand all weights of modules and cleaner and to withstand wind speed of 200km/hr. Anti-theft Nut &amp; Bolts must be used for modules.</p> <p>(i) For 25kW SPV Power Plant at different locations of Meghalaya, the SPV Modules are to be mounted on the eligible roofs. The Modules shall be mounted on square Aluminium Rods above the Aluminium Rails. The Aluminium Rails should be bolted to the Steel structure of the building.</p> <p><b>TECHNICAL SPECIFICATION OF MODULE MOUNTING STRUCTURE Type:</b> Hot deep galvanized minimum 80 microns</p> <p><b>Material</b> : MS Angle / Channel</p> <p><b>Angle Size</b> : 50mm. x 50 mm. x 6 mm.</p> <p><b>Tilt angle</b> : At least 22degree to horizontal as per suitable.</p> <p><b>Nut &amp; Bolt</b> : All stainless-steel Nuts and Bolts (Anti-theft) &amp; washer of good quality MS or SS.</p> <p><b>Specification</b> : As per IS</p>
3	<p><b>ARRAY SUB JUNCTION BOX &amp; MAIN JUNCTION BOX</b></p> <p>The Array Junction boxes shall be dust, vermin and water proof and made of FRP / powder coated Aluminium with full dust / ABS / Thermo Plastic. The Junction Boxes confirms to IP 65 standard and IEC 62208. Junction Boxes have hinged door with EPDM rubber gasket to prevent water entry. The terminals shall be connected to Copper bus bar arrangement of proper size. The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming and outgoing cables. All the wire/cables must be terminated through cable lugs. The Junction Boxes shall be such that input &amp; output termination can be made through suitable cable gland. Suitable marking shall be provided on the bus bar for easy identification and cable ferrules shall be fitted at the cable termination points for identification. Each JBs have suitable earthing provision. It will be placed at 5 feet height or above as per site requirement for easy accessibility. Each Junction Box shall have suitable arrangement monitoring and disconnection for each of the groups.</p>
4	<p><b>DC DISTRIBUTION BOARD:</b></p> <p>The DCBD shall be provided in between Solar Array and Power Conditioning Unit. It consists of MCCB of suitable ratings for connection and disconnection of array input and also Volt meters, Ammeters &amp; Charging Discharging Amp Hour Meters. It has LED indication for ON and OFF status as per requirement.</p>

<b>TECHNICAL SPECIFICATION OF DCDB:</b>	
Enclosure material	: Sheet Steel Epoxy Powder coated
Mounted type	: Wall mounting type
Cable entry	: Bottom
No. of glands with cable size	: 6 nos. for 95 sq. mm cable size
MCCB	: 2 nos., 200 A
DC Am-meter	: 1 nos. (0 to 150 A) for measuring Solar display
DC Am-meter	: 1 no. (-150 to 0 & 0 to +150 A) for measuring Battery Charge & discharge display
DC Volt Meter	: 2 no. (0 to 400 V DC) for SPV & Battery
DC Ampere Hour Meter	: 1 no.
Earthing terminal size	: M75
Accessories	: as per requirement
<b>TECHNICAL SPECIFICATION OF BATTERY ISOLATION DEVICE</b>	
Fuse	: 1 no., 200 A 500 V DC HRC Fuse with DC insulator
Fuse Holder	: 1 no., 200 A 500 V DC
Link Copper rating	: 200 A (-)
<b>5</b>	<p><b>POWER CONDITIONING UNIT (PCU):</b> As SPV array produces direct current (DC), it is necessary to convert this to alternating current (AC) and adjust the voltage levels before powering equipment designed for nominal mains AC supply. Conversion shall be achieved using an electronic inverter and the associated control and protection devices. All these components of the system are termed the Power Conditioning Unit or simply the PCU. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), to maximize Solar PV array energy input into the system. PCU refers to combination of Charge controller and inverter and shall be supplied as integrated unit or different units of charge controller and inverter depending on rating &amp; size of the power plant. The PCU should be a Hybrid type which can be able to export energy to Grid interface.</p> <p><b>Maximum Power Point Tracker (MPPT):</b> Maximum Power Point Tracker (MPPT) shall be integrated into the PCU to maximize energy drawn from the SPV array. The MPPT should be Microprocessor/ Microcontroller based to minimize power losses.</p> <p><b>CHARGE CONTROLLER (MPPT /PWM):</b> DC electricity from the array is used to feed inverter as well as charge the battery bank for night time use. The total energy received from the array being dependent upon the availability of sunshine during the day which in turn varies from season to season; there may be occasions when the Power Plant generate surplus energy and could be exported to Grid. Similarly, in monsoon season, prolonged overcast sky could cause Battery Bank getting drained beyond the maximum allowed depth of discharge (DOD). To guard against battery overcharge or deep discharge, the charge controller is incorporated.</p> <p><b>HYBRID INVERTER:</b> PCU/Inverter should be a hybrid type based on PWM technology. The DSP controller is used for controlling the whole unit in quick time. Input voltage range being 300-800V DC it is ideally suitable for 240V 800 AH battery operation. Rating of the inverter is 25kVA, 240V DC/415 (±3%) V AC, 3 phase, 50 (±5%) Hz, sine wave inverter with inbuilt PWM / MPPT Charge controller of rated 240-415 V DC with the output power of 25 kW. The output voltage wave is good quality sine wave. External battery charging facility through AC is also be provided.</p>

**TECHNICAL SPECIFICATION OF THE INVERTER 25 kVA HYBRID INVERTER:****Solar Charge Controller:**

1.	Charge Controller Type	MPPT
2.	PV Nominal Capacity (Total)	25 kW
3.	No of MPPT Channels	1
4.	Per Channel PV Capacity (Nominal/ Peak)	25/26.75
5.	Max. Open Circuit PV Volts (Voc)	620V
6.	MPPT Voltage Range	330-515V
7.	PV Minimum Voltage	264V

**Solar Inverter**

1.	No of Phases/Connection Type	3-Phase/4 wire
2.	Nominal Battery Voltage	240V
3.	Nominal Output Voltage/ Frequency	415V/50Hz
4.	*Nominal Capacity (Total/ Per Phase)	20KVA/6.78kVA
5.	**Output Amps per Phase	28 Amps
6.	Voltage Regulation (in Standalone Mode)	+/- 2%
7.	Freq. Regulation (in Standalone Mode)	+/- 0.5 Hz
8.	THD	Less than 5%
9.	Load Power Factor	0.8 lag to unity
10.	Efficiency: Peak/ 100% Load/ 20% Load	>88%/ >85%/ >80%
11.	***Over Load: 60 sec/ 30 sec/ 5 sec	110%/ 125%/ 150%
12.	Max Allowed Phase Imbalance	30%
13.	****Auto Bypass Feature	Provided
14.	Parallel Operation with Grid/ DG	Provided
15.	Power Export to Grid Facility	Provided
16.	Anti-Islanding from Grid	Provided

Note: \* and \*\* - valid at 0.8 power factor.

\*\*\*- Overload protection at load end is applicable only in Standalone mode.

\*\*\*\* - Auto Bypass does not ensure complete bypass of the grid supply loads.

**Grid Charger**

1.	Grid Voltage Range (Voltage Sync. Range)	+10 % VAC & -20 % VAC
2.	Grid Frequency range (Freq. Sync Range)	+5% & -5% Hz
3.	Max Grid Import Power	25kVA
4.	Max Battery Amps during Grid charging	54 Amps
5.	Peak Charging Efficiency	80%

**Protections:**

1.	<b>PV Side:</b>	Reverse Polarity, Surge Protection (Class D)
2.	<b>Battery Side:</b>	Reverse Polarity, Over/ Under Voltage, Current Limit
3.	<b>Grid Side:</b>	Over/ under Voltage, Over/ Under Frequency, Surge Protection (Class D)
4.	<b>Load Side:</b>	Overloads, Short circuit
5.	<b>System Protection:</b>	Over Temperature
6.	<b>Degree:</b>	IP-21

6.	<p><b>DATA LOGGER/REMOTE MONITORING SYSTEM:</b> part of the inverter or a separate Data logging system shall also be an integrated unit. All the relevant information will be stored in a data logger. The inverter should be equipped with a Modem with a facility of incorporating a GSM Mobile SIM to access Internet through GSM Network for Remote Monitoring system. The expenditure of using the Mobile SIM shall be borne by the bidder/contractor during the MPWC period of 5 years. Data logging system shall record the performance of the Plant in an interval of every 6 hours. The software for Remote Monitoring system shall be installed in PC/laptop of MNREDA and beneficiary organizations. The hard copy/printout of the daily performance data of the Plant for every quarter (3 months) shall be submitted to MNREDA quarterly during the MPWC period.</p>
7	<p><b>BATTERY BANK:</b></p> <p><b>TECHNICAL SPECIFICATION OF BATTERY</b>  <b>Manufacturer</b> : Exide Industries Ltd./Southern Batteries/Accumulator Manufacturing Company (Other not allowed)  <b>Battery Type</b> : VRLA Type  <b>Storage Capacity</b> : 10 Hr, 240 V, 600 AH (@C/10)  <b>Cell Voltage (cell)</b> : 2 Volt  <b>Container</b> : Polypropylene with carrying handle.  <b>Cover:</b> Protective cover of Polypropylene  <b>Efficiency</b> : Amp hour ≥90% and Watt hour ≥75%  <b>Max. Depth of Discharge:</b> 80%  <b>Self-Discharge:</b> Lower than 3% per Month  <b>Cell cut off voltage</b> : 1.85 V / cell.  <b>Standard</b> : IS 1651/ISO 9001 &amp; ISO 14001.  <b>Accessories</b> : Each Battery Bank will contain suitable metal or wooden rack, hydrometer, thermometer, cell connector and connecting leads etc.  <b>Design Cycle</b> : 1200-1500 cycle at 80 % DOD, 4000 cycle at 40 % DOD, 7500 cycle at 20 % DOD  <b>Charge Efficiency</b> : Shall be more than 90% up to 70% state of charge.  <b>Rack</b> : Metal or Wooden of suitable size and adequately strong Battery Rack should be supplied with each Battery Bank with a minimum performance life span of 5 years.</p>
9.	<p>Sheet metal enclosure with powder coating painting having AC MCB / MCCB. ACDB also have LED Indicator. One Electronic Energy Meter, ISI make, Three Phase, of good quality shall be installed in ACDB suitably placed to measure the consumption of power from SPV Power Plant.</p> <p><b>TECHNICAL SPECIFICATION OF ACDB</b></p> <p>Enclosure material : Sheet Steel Epoxy Powder coated  Mounted type : Wall mounting type  Earthing terminal size : M20  Cable entry : Bottom  No. of glands with cable size : 6 nos. for 95 sq. mm.  Accessories : per requirement  MCB/ MCCB : MCB/MCCB for connection &amp; disconnection of PCU from load  MCB : MCB for power supply to control room &amp; Battery room loads  Feeder : Output to control panel through MCB</p>
9.	<p><b>CABLES:</b> Cables from Control Room of the Plant to the Main Distribution Box (DB) of each Beneficiary Institution and also from main DB to Control Room for Grid Charging should be taken overhead with suitable supports to prevent sagging or underground as per the convenience considering the safety point of view for both the Plant &amp; People.</p> <p>Type : PVC insulated and sheathed  Materials : All DC Cables shall be of Copper &amp; AC Cables of Aluminium. AC Cables shall be of XLPE insulation  Working voltage : Up to 1100 V  State voltage : 650 V/1.1 KV  Color : To suit Red, Black, Blue</p>

	<p>Temperature : -15 deg. C to + 70 deg. C  Standard : IS 1554 part -1/ 694-1990 &amp; IS 7098  Cable Size &amp; Schedule : 95 sq.mm.</p>
<b>10.</b>	<b>PROTECTIONS:</b> As the inverter is Hybrid Inverter, the system may export excess energy to the Grid interface. Therefore, all necessary protections should be provided like Lightning, Earthing and Grid Islanding as follows:
<b>a.</b>	<p><b>LIGHTNING AND OVER VOLTAGE PROTECTION SYSTEM:</b>  The SPV Power Plant is provided with lightning and over voltage protection connected with proper earth pits. The lightning conductor should be made of 20-25mm diameter, 3000-3500mm. long GI spike as per provisions of IS.</p> <p>The lightning conductor should be grounded through 25mm. X 5mm. thick GI strip with earth pit. Required no. of suitable lightning arrestors shall be installed in array field.</p>
<b>b.</b>	<p><b>EARTHING SYSTEM:</b>  Each array structure of the PV yard should be grounded properly. In addition the lightning arrestor should also be provided inside the array field. Provision should be kept for shorting and grounding of the PV array at time of maintenance work. All metal casing/ shielding of the plant should be thoroughly grounded in accordance with IEC acts/ IE Rules. PCU, ACDB &amp; DCDB will be earthed properly.</p> <p>Earthing for array &amp; distribution systems &amp; power plant equipments are made with GI pipe 2000-3000 mm. long 25-30 mm. diameter including accessories &amp; using charcoal and salt as per IS 3043. The array structure is grounded to earth pit through 25mm X 5mm. GI strip. Earthing Resistance should be not more than 2.5 ohms.</p>
<b>c.</b>	<p><b>GRID ISLANDING:</b>  In the event of a power failure on the electric grid, it is required that any independent power producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as "islands." Powered islands present a risk to workers who may expect the area to be unpowered, &amp; they may also damage grid-tied equipment. The PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided. A manual disconnect 4pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.</p>
<b>d.</b>	<p><b>SURGE PROTECTION:</b>  Internal surge protection shall consist of three MOV type surge-arrestors connected from +ve and -ve terminals to earth (via Y arrangement)</p>
<b>11.</b>	<b>ENERGY METERS:</b> As the inverter is a Hybrid Inverter, the system may export excess energy to the Grid interface therefore, Energy Meter such as Net Meter/Gross Meter (as per the decision of Beneficiary institution) with all accessories (as per requirement) should also be provided with the system.
<b>12.</b>	<b>FIRE EXTINGUISHER:</b> 2 (Two) Nos. of 9 kg or above BIS standard Fire extinguisher with sand bucket will be provided in the control room & battery room for fire caused by electrical short circuits which shall be always functional during the MPWC period.
<b>13.</b>	<b>SPECIFICATION OF CHANGE OVER SWITCH:</b> A separate change over switch of 3Ø, 415 V of suitable ampere rating for 25kW load should be installed outside ACDB to isolate the existing connected load from the SPV system and cater the power to the existing load from conventional/grid line, in case of emergency.
<b>14.</b>	<b>SOLAR WATER DISTILLATION PLANTS/SOLAR STILLs:</b> 2(Two) Numbers of BIS approved quality Solar Distillation Plants of 1000 mm x 1000 mm shall be installed on suitable GI structure shall be installed for each 25kW SPV Power plant. At least two numbers of plastic pots and one funnels are to be supplied along with each Solar Water Distillation Plants/Solar Still.
<b>15.</b>	<b>SPECIFICATION OF SAND BUCKETS:</b> The sand bucket to be wall mounted made from at least 24 SWG sheet with bracket fixing on wall conforming IS 2546.

16.	<p><b>SPECIFICATION OF DANGER PLATES:</b>  Danger plate to be installed wherever require as per Indian IE rule. The Danger plate should be vitreous enamelled white on both sides, and with inscription in signal red colour on front side as required. The inscription should be in English.  <b>The details specifications are as follows: -</b></p> <ol style="list-style-type: none"> <li>1. Size : 200 mm X 150 mm X 2 mm.</li> <li>2. Material : M.S</li> </ol>
17.	<p><b>SPECIFICATION OF EXHAUST FAN:</b>  2(Two) No. of exhaust fan shall be fitted in the battery room and the control room. The exhaust fans shall be 250 mm in diameter and suitable for AC 230 V, 50 Hz supply.</p>
18.	<p><b>SPECIFICATION OF WIRING MATERIALS:</b>  Control room wiring to be done by casing capping type 2C x 2.5 Sq. mm PVC insulated 1.1 KV grade Cu wire.</p>
19.	<p><b>DOCUMENTS:</b>  An operation, instruction, maintenance manual in English should be provided with the Solar Power Plant. The following minimum details must be provided in the manual:</p> <ol style="list-style-type: none"> <li>(i) About Photovoltaic</li> <li>(ii) About Solar Power Plant – its components and expected performance</li> <li>(iii) About PV Module. In case of imported modules, it is mandatory to provide a copy of the international product qualification certificate to the test Centre</li> <li>(iv) About PCU/Inverter. The make, model number and technical characteristics of PCU/Inverter should be stated in the product data sheet and furnished to the test centers</li> <li>(v) About Battery and electronics used</li> <li>(vi) Clear instructions about Mounting of PV Module(s)</li> <li>(vii) About electronics</li> <li>(viii.) about Charging and Significance of Indicators.</li> <li>(ix) DO's and DON'Ts</li> <li>(x) Clear instructions on operation, Regular Maintenance and Trouble Shooting of SPP</li> <li>(xi) Name and address of the person or service center to be contacted in case of failure or complaint.</li> </ol>

**B. Description of the subsystems for replacement.**

**Design, Supply, Installation & Commissioning including 5 Years Operation and Maintenance (O&M) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

**Spare parts**

Bidder should keep stock of essential spares (Control cards, PCB's, Switches fuses, SPV Panels and other necessary equipments required for SPV Power Plants etc.) at their nearest service center and/or at each site at their cost for 5 years maintenance. A recommended list of such spares should be provided by MNREDA.

**Installation and commissioning**

- Detailed project execution plan should be submitted along with the offer.
- The bidder should quote for installation and commissioning.
- The bidder is responsible for arranging all the accessories and measuring instruments required to properly commission the system.



**Format for Covering Letter**  
**NIB No: MNREDA/1599/2014 (Pt-I)/109**

**(To be submitted and uploaded in the official letterhead of the company)**

To,  
The Director,  
Meghalaya New and Renewable Energy Development Agency  
Near BSF Camp, PO-Mawpat  
Nongmensong,  
Shillong-793019  
Meghalaya

**Sub: Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

Sir,  
We are hereby submitting our offer in full compliance with the terms and condition of the above NIB No. We have submitted the requisite amount of Tender Fee in the form of Demand Draft & "Earnest Money" in the form of Bank Guarantee, valid for twelve months.

The tender is uploaded on [www.meghalayatenders.gov.in](http://www.meghalayatenders.gov.in) as per the requirement of the website separately Technical Bid & Financial Bid.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

**Information About The Bidding Firm****NIB No: MNREDA/1599/2014 (Pt-I)/109**

(To be submitted in the official letter head of the company)

SL. No.	Particulars	
1.	Name of the Bidder	
2.	Address of Bidder with Telephone, Fax, email	
3.	Address of the Registered Office	
4.	Address of the works	
5.	GPS Co-ordinate of Registered Office	
6.	GPS Co-ordinate of Factory Campus	
7.	Name & Designation of Authorized Signatory for Correspondence (Attach Power of Attorney as per <b>Annexure-6</b> )	
8.	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Ltd. Co./Public Sector)	
9.	Permanent Account Number (PAN) (Attach proof)	
10.	Firm's Registration Number (Attach proof)	
11.	GST Number (Attach proof)	
12.	Details of in-house testing facility (Attach Proof)	
13.	Office/ Dealer and Service network in Meghalaya (Give details)	
14.	Particulars of Earnest Money and Bid fee	
15.	Place where Materials will be Manufactured	
16.	Place where Materials will be Available for Inspection	
17.	Other details and remarks, if any	

Yours faithfully,

(Signature of Authorized Signatory)

Name :  
 Designation :  
 Company seal :

(Separate sheet may be used for giving detailed information duly signed)

**Declaration by the Bidder**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

(To be submitted in the official letter head of the company)

I/We \_\_\_\_\_ (here in after referred to as the Bidder) being desirous of tendering for the rate contract for work under the above-mentioned tender and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc. as mentioned in the tender document, DO HEREBY DECLARE THAT

1. The Bidder is fully aware of all the requirements of the tender document and agrees with all provisions of the tender document.
2. The Bidder is capable of executing and completing the work as required in the tender.
3. The Bidder accepts all risks and responsibilities directly or indirectly connected with the performance of the tender.
4. The Bidder has no collusion with any employee of MNREDA or with any other person or firm in the preparation of the bid.
5. The Bidder has not been influenced by any statement or promises of MNREDA or any of its employees, but only by the tender document.
6. The Bidder is financially solvent and sound to execute the work.
7. The Bidder is sufficiently experienced and competent to perform the contract to the satisfaction of MNREDA.
8. The information and the statements submitted with the tender are true.
9. The Bidder is familiar with all general and special laws, acts, ordinances, rules and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
10. The Bidder has not been debarred/blacklisted by any SNA/ Government Dept. /PSU.
11. This offer shall remain valid for Six months from the date of opening of the tender.
12. The Bidder gives the assurance to execute the tendered work as per specifications terms and conditions.
13. The Bidder confirms the capability to supply and install required no. of systems per month.
14. The Bidder accepts that the earnest money be absolutely forfeited by MNREDA if the Bidder fails to undertake the work or sign the contract within the stipulated period.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

**Format for Financial Requirement – Annual Turnover**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

[On the letterhead of Bidding Company]

To,

The Director,  
 Meghalaya New and Renewable Energy Development Agency  
 Near BSF Camp, PO-Mawpat  
 Nongmensong, Shillong-  
 793019  
 Meghalaya

Dear Sir,

**Sub: Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya**

We certify that the Bidding Company had an average Annual Turnover of Rs. -----  
 ----- based on audited annual accounts of the last three years ending 31 03.2019.

Sl. No.	Financial Year	Turnover (in Rupees)
1.	2015-16	
2.	2016-17	
3.	2017-18	
4.	2018-19	
5.	2019-20	
	Average Annual Turnover	

**UID No.:** .....

*Authorised Signatory*  
 (Power of Attorney holder)

*Statutory Auditor*  
 (Stamp & Signature)

Date:

**Format for Financial Requirement - Net Worth Certificate****NIB No: MNREDA/1599/2014 (Pt-I)/109**

[On the letterhead of Bidding Company]

To,

The Director,  
 Meghalaya New and Renewable Energy Development Agency  
 Near BSF Camp, PO-Mawpat  
 Nongmensong, Shillong-793019  
 Meghalaya

Dear Sir,

**Sub: Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

This is to certify that Net worth of \_\_\_\_\_ {insert the name of Bidding Company}, as on 31st March 2019 is Rs\_\_\_\_\_. The details are appended below.

<b>Particulars</b>	<b>Amount (In Rs.)</b>
Equity Share Capital	
Add: Reserves	
Subtract: Revaluation Reserve	
Subtract: Intangible Assets	
Subtract: Miscellaneous Expenditure to the extent not written off and carried forward losses	
Net Worth as on 31 <sup>st</sup> March 2019	

**UID No.:** .....

*Authorised Signatory*  
*(Power of Attorney holder)*

*Statutory Auditor*  
*(Stamp & Signature)*

**Format of Power of Attorney for Signing Bid**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

:

**POWER OF ATTORNEY**

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

Know all men by these presents, we.....(name and address of the registered office) do hereby constitute, appoint and authorize Mr. / Ms. ....(name and residential address) who is presently employed with us and holding the position of.....

as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for all tenders notified by Meghalaya New and Renewable Energy Development Agency during 2019-20, including signing and submission of all documents and providing information / Bids to Meghalaya New and Renewable Energy Development Agency, representing us in all matters before [Insert Name], and generally dealing with Meghalaya New and Renewable Energy Development Agency in all matters in connection with our bid for the said Project.

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

For

\_\_\_\_\_Signature

Accepted by

..... (Signature)

(Name, Title and Address of the Attorney)

***Note: The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, lay down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.***

**Details of Orders Received and Executed in Last 7 Years****NIB No: MNREDA/1599/2014 (Pt-I)/109**

Details of Orders Received & Executed by the Manufacturer/Supplier for Supply of **SPV Power Plant** to SNA/ Govt. Organization during Last Seven Years.

<b>SL. No.</b>	<b>Name of Agency/ Organization</b>	<b>Purchase Order No., Date &amp; Ordered Qty.</b>	<b>Capacity of SPV Power Plant</b>	<b>Delivery Schedule</b>	<b>Qty. Supplied Within Delivery Schedule</b>	<b>Qty. Supplied After Delivery Schedule</b>	<b>Date of Full Supply</b>

Yours faithfully,

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

## Note:

- (a) Attach Photocopies of Work Orders
- (b) Attach Photocopies of Certificate of Satisfactory Performance Issued by Concerned Nodal Agency/PSU/ Govt. Organization
- (c) Separate sheet may be used for giving detailed information in seriatim duly signed. This bid Performa must be submitted duly signed in case separate sheet is submitted

**Format for Technical Details**

NIB No: MNREDA/1599/2014 (Pt-I)/109

**Sub: Design, Supply, Installation & Commissioning including 5 Years Operation and Maintenance (O&M) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

S. N	Particulars	Details	Make
1	Make of Battery and Origin		
2	Type of Battery		
3	No. of Battery		
4	Each Battery Voltage		
5	Each Battery Ah		
6	Battery Bank rating (Voltage & Ah)		

**Undertaking**

- a) We agree to supply, installation & commissioning, renovation, the Power Plant as per NIT specifications.
- b) We agree to give performance guarantee as specified and to abide by the scope of the guarantee as prescribed under the tender document.
- c) We agree to operate as per the terms & conditions of the tender.

We undertake to supply quality products for promoting energy efficiency in the era of lighting systems.

(Signature of Authorized Signatory with Name Designation & Company Seal)

**Filling Instructions:**

1. During the Guarantee period MNREDA/users reserve the right to cross check the performance of the systems for their minimum performance levels specified in the MNRE specifications.



**Technical Detail Form**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**  
 (To be submitted in the official letter head of the company)  
**Warranty Card**

1.	Name & Address of the Manufacturer/ Supplier of the System	
2.	Name & Address of the Purchasing Agency	
3.	Date of Supply of the System	
4.	Details of Battery	
	(a) Name of the Manufacturer	
	(b) Make	
	(c) Model	
	(d) Batch/Serial No(s).	
	(e) Month & Year of Manufacture	
	(f) Rated V & AH Capacity at C/20 or C/10 Rated at 27°C	
	(g) Guarantee Valid Up To	
5.	Designation & Address of the Person to be Contacted for Claiming Warranty Obligations	

(Signature of Authorized Signatory with Name Designation & Company Seal)

**Filling Instructions:**

1. The Guarantee card to be supplied with the system must contain the details of the system supplied as per format given above.
2. During the Guarantee period MNREDA/users reserve the right to cross check the performance of the systems for their minimum performance levels specified in the MNRE specifications.

**Price Bid Format**

**NIB No: MNREDA/1599/2014 (Pt-I)/109  
(To be submitted Online)**

**Subject: Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

<b>S.No (a)</b>	<b>Name of Work (b)</b>	<b>Capacity (in kWp) (c)</b>	<b>Rate/kWp (d)</b>	<b>Taxes and duties (Rs.) (e)</b>	<b>Total Amount (up to 2 decimals) (f) {f=c*d+e}</b>
<b>1</b>	<b>Design, Supply, Installation &amp; Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.</b>	<b>25</b>			
<b>Total</b>					
<b>In Words:</b>					

- 1 Above quoted price for are complete in all respect as per Technical Specifications inclusive of all Central/State/Local applicable taxes & duties, packing, forwarding, transit insurance, loading & unloading, transportation & other charges etc. FOR destination in Meghalaya and inclusive of installation, testing, commissioning, operation & maintenance for five years, performance testing and training.
- 2 Certified that rates quoted for above mentioned all components are as per specifications, terms & conditions mentioned in the bid document.
- 3 Price should be quoted in complete numeric figure and words.

**(Signature of Authorized**

Signatory) Name:

Designation:

Company

Seal:

**Format for Submitting Bank Guarantee for Earnest Money****NIB No: MNREDA/1599/2014 (Pt-I)/109****(To be submitted in Rs. 100/- Non-Judicial Stamp Paper to be purchased in the name of the issuing bank)**

To,  
 The Director,  
 Meghalaya New and Renewable Energy Development Agency  
 Near BSF Camp, PO-Mawpat  
 Nongmensong, Shillong-793019  
 Meghalaya.

WHEREAS ..... (Supplier's name) (hereinafter referred to as "Supplier"), a company registered under the Companies Act, 1956 and having its registered office at ..... is required to deposit with you, the Purchaser, by way of Earnest Money Rs. .... (Rupees ..... only) in connection with its tender for the work with reference to Notice Inviting Bid (NIB) No. .... dated ..... as per specification and terms and conditions enclosed therein.

WHEREAS the Supplier as per "Notice Inviting Bid, point no. 3 Earnest Money" has agreed to establish a Bank Guarantee in Your favour through us valid up to ..... (date ) instead of deposit of earnest money in cash.

WHEREAS you have agreed to accept a Bank Guarantee from us in ..... instead of earnest money in cash from the Supplier.

1. We ..... (Bank) hereby agree and undertake to pay you on demand the said amount of Rs. .... (Rupees ..... only) without any protest or demur in the event the Supplier/Tenderer after submission of his tender, resiles from or withdraws his offer or modifies the terms and conditions thereof in a manner not acceptable to you or expresses his unwillingness to accept the order placed and/or letter of intent issued on the Supplier/Tenderer for the work under "**Notice Inviting Bid Ref. No.: MNREDA/1599/2014 (Pt-I)/109**".
2. Your decision as to whether the Supplier/Tenderer has resiled from or has withdrawn his offer or has modified the terms and conditions thereof in a manner not acceptable to you or has expressed his unwillingness to accept the order placed and/or Letter of Intent issued by you on the Supplier/Tenderer for the work under "**Notice Inviting Bid Ref. No. : MNREDA/1599/2014 (Pt-I)/109**" in this regard, shall be final and binding on us and we shall not be entitled to question the same.

3. Notwithstanding anything contained in the foregoing, our liability under this Guarantee shall be restricted to Rs. .... (Rupees..... only).
4. This Guarantee shall remain valid and in full force and effect up to ..... (Date) and shall expire thereafter unless an intimation is given to the Bank by you earlier in writing discharging us from our obligation under this Guarantee.
5. We shall not revoke this Guarantee during its currency except by your consent in writing.
6. This Guarantee shall not be affected by any change in the constitution of the Supplier/Tenderer or yourselves or ourselves but shall ensure to your benefit and be enforceable against our legal successors or assignees by you or your legal successors.
7. Notwithstanding anything contained herein above unless a demand or claim under this Guarantee is made on us in writing within six months from the date of expiry of this Guarantee we shall be discharged from all liabilities under this Guarantee thereafter.
8. We have power to issue this Guarantee under our Memorandum and Articles of Association and the undersigned who is executing this Guarantee has the necessary power to do so under a duly executed Power of Attorney granted to him by the Bank.

Signed and Delivered

For and on behalf of ..... Bank.

(Banker's Name)

Name of Bank Manager: .....

Address .....

.....

**Certificate of supply, installation & commissioning of the work as Proof of Compliance by the Contractor**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

**The details of materials for Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya:**

1. Name of Plant:-
2. Nos. & Capacity of Batteries:.....
3. Nos. of Junction Box: .....

Signature & Seal of the contractor

**Certificate of MNREDA Representative**

Certified that above mentioned materials have been inspected as per the specification and above materials handed over to the Consignee.

Signature & Seal of Project In-charge

**Format for Monthly O&M and CMC Report**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

[On the letterhead of Bidding Company]

To,

The Director,  
 Meghalaya New and Renewable Energy Development Agency  
 Near BSF Camp, PO-Mawpat  
 Nongmensong, Shillong-793019  
 Meghalaya.

Dear Sir,

**Sub: Design, Supply, Installation & Commissioning including 5 Years Comprehensive Maintenance Contract (CMC) of 25 kWp Off-Grid SPV Power Plants at Different Locations in State of Meghalaya.**

Date of Installation.....  
 MNREDA Dispatch Order No..... Dated.....  
 Month of OMC and CMC.....  
 Date of Visit.....

S. N.	Place of Installed System	System Details		CMC activities undertaken by Technician	Remarks
		Solar PV Module			
		Battery			
		PCU /Inverter			
		Cables/Connections			
		Any other Component			

Energy Generated Status:

Date	Present Reading	Previous Reading	Energy Generated

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

**Contact Person for the NIB**

**NIB No: MNREDA/1599/2014 (Pt-I)/109**

[On the letterhead of Bidding Company]

<b>1</b>	Contact Person name for the NIB	
<b>2</b>	Designation	
<b>3</b>	Contact No. (phone & mobile)	
<b>4</b>	Fax No.	
<b>5</b>	e-mail ID	
<b>6</b>	Corresponding address with pin code	
<b>7</b>	Remarks	

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

**Check List of Technical bid**

NIB No:

S.No	Particulars	Yes / No	Page No.
1	D. D. towards Tender fee.		
2	Duly pledged EMD		
3	GST certificate.		
4	PAN Card		
5	Firm's registration certificate/ Registration certificate of MSME of Meghalaya.		
6	Certificate issued by Industry Dept. or MNRE for system manufacturing or Registration Certificate for Electrical Contractor (Class-I) issued by Energy Department, Govt. of Meghalaya.		
7	Audited Balance sheet of last three years.		
8	Test certificate of Batteries		
9	Covering letter (Annexure-1)		
10	Information about the bidding firm (Annexure-2)		
11	Declaration by the bidder (Annexure-3)		
12	Annual Turn over (Annexure-4)		
13	Net Worth certificate (Annexure-5)		
14	Format for power of attorney for signing of bid (Annexure-6)		
15	Proof of supply/execution of SPV systems/ materials in any SNA/Govt. organization/PSU in the last seven years. Attach copy of orders & its satisfactory completion certificate (Annexure-7)		
16	Technical details & make of the Equipments to be supplied (Annexure-8)		
17	Contact Person for the NIB (Annexure-14)		

\* **Please write page number as in the box.****Please ensure:**

- i) That all information is provided strictly in the order mentioned in the check list mentioned above.
- ii) Bidders are advised to strictly confirm compliance to bid conditions and not to stipulate any deviation/conditions in their offer. Subsequent to bid submission, MNREDA may or may not seek confirmations/clarifications and any offer(s) not in line with Bid conditions shall be liable for rejection.
- iii) Any clarification/confirmation bidder may require shall be obtained from MNREDA before submission of the bid. Bidder shall submit complete bidding document including subsequent amendment, modification and revision, duly signed and stamped as a token of having read, understood and accepted all the terms and condition mentioned therein.

(Signature of Authorized Signatory) Name:

Designation:

Company

Seal:



## List for Installation of SPV Power Plant 25 kW each at various location in the State of Meghalaya

S.No.	Location/Site for Installation of Plants	District	Proposed Capacity (in kWp)
1.	Civil Hospital, Williamnagar	East Garo Hills	25
2.	CHC Rongjeng	East Garo Hills	25
3.	PHC Mangseng	East Garo Hills	25
4.	PHC Songsak	East Garo Hills	25
5.	PHC Rongrang	East Garo Hills	25
6.	CHC Sutnga	East Jaintia Hills	25
7.	PHC Lumshnong	East Jaintia Hills	25
8.	CHC Sohiong	East Khasi Hills	25
9.	PHC Smit	East Khasi Hills	25
10.	PHC Pomlum	East Khasi Hills	25
11.	PHC Kharkutta	North Garo Hills	25
12.	PHC Wagesi	North Garo Hills	25
13.	CHC Umsning	Ri-Bhoi	25
14.	CHC Patharkamah	Ri-Bhoi	25
15.	PHC Byrnihat	Ri-Bhoi	25
16.	PHC Umtra	Ri-Bhoi	25
17.	Civil Hospital Baghmara	South Garo Hills	25
18.	PHC Siju	South Garo Hills	25
19.	CHC Chokpot	South Garo Hills	25
20.	PHC Salmapara	South West Garo Hills	25
21.	CHC Mohendraganj	South West Garo Hills	25
22.	Civil Hospital Ampati	South West Garo Hills	25
23.	PHC Betasing	South West Garo Hills	25
24.	PHC Rangsakone	South West Garo Hills	25
25.	CHC Mawkyrwat	South West Khasi Hills	25
26.	PHC Mawthawpdah	South West Khasi Hills	25
27.	Civil Hospital Tura	West Garo Hills	25
28.	CHC Selsella	West Garo Hills	25
29.	PHC Jeldupara	West Garo Hills	25
30.	PHC Babadam	West Garo Hills	25
31.	CHC Dalu	West Garo Hills	25
32.	PHC Pedaldoba	West Garo Hills	25
33.	CHC Ummulong	West Jaintia Hills	25
34.	PHC Dawki	West Jaintia Hills	25
35.	PHC Barato	West Jaintia Hills	25
36.	PHC Rambreati	West Khasi Hills	25
37.	CHC Riango	West Khasi Hills	25
38.	PHC Aradonga	West Khasi Hills	25
39.	PHC Nonglang	West Khasi Hills	25
40.	PHC Dagal	East Garo Hills	25
41.	PHC Mawlong	East Khasi Hills	25

42.	PHC Shella	East Khasi Hills	25
43.	PHC Dainadubi	North Garo Hills	25
44.	PHC Adokgre	North Garo Hills	25
45.	PHC Silkigre	South Garo Hills	25
46.	PHC Mellim	South Garo Hills	25
47.	PHC Kherapara	South Garo Hills	25
48.	PHC Shallang	West Khasi Hills	25
49.	PHC Kynshi	West Khasi Hills	25
50.	District Court Tura	West Garo Hills	25
51.	District Court Williamnagar	East Garo Hills	25
52.	District Court Nongstoin	West Khasi Hills	25
53.	District Court Nongpoh	Ri-Bhoi	25
54.	DC Office Ampati	South West Garo Hills	25
55.	PHC Silkigre	South West Garo Hills	25
56.	Kasturba Gandhi Balika Vidyalaya (KGBV) ZikZak	South West Garo Hills	25
57.	PHC Mellim	South West Garo Hills	25
58.	Ware House & EVM Distribution Center, Ampati	South West Garo Hills	25
59.	Kasturba Gandhi Balika Vidyalaya (KGBV) Betasing	South West Garo Hills	25
60.	Higher Secondary School, Garobadha	South West Garo Hills	25
61.	DC Office, Mawkyrwat	South West Khasi Hills	25
		<b>TOTAL</b>	<b>1,525 kWp</b>

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