



**Bihar Renewable Energy Development Agency**  
(A Government Agency under Energy Department)

**Request for Proposal (RFP)**

**For**

**Selection of Bidders**

**For**

**Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar.**

**NCB No: BREDA/TENDER/SPV/OffGrid/05/2018-19**

**Bihar Renewable Energy Development Agency (BREDA)**  
(A Govt. Agency under Energy Department)  
2<sup>nd</sup> Floor, Vidyut Bhawan-II, Bailey Road,  
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## Bihar Renewable Energy Development Agency

(A Government Agency under Energy Department)

2<sup>nd</sup> Floor, "Vidyut Bhawan-II", Bailey Road,

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Website: [www.breda.bih.nic.in](http://www.breda.bih.nic.in) Email: [breda@breda.in](mailto:breda@breda.in)

(Through e-procurement mode only- [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in))

### NCB No: BREDA/TENDER/SPV/OffGrid/05/2018-19

Bihar Renewable Energy Development Agency, a Government Agency under Energy Department of Bihar Government (hereinafter called "BREDA" or "OWNER") invites Bids through E tendering Process National Competitive Bidding (NCB) from the Bidders fulfilling the Eligibility Criteria specified here under for **Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar.** The Bidder should meet the following Eligibility Criteria in order to be eligible for participating in this RFP:

S.N	Minimum Eligibility Criteria
1	The Bidder should be a body corporate incorporated in India under the Companies Act, 1956 or 2013 <b>Or</b> A Limited Liability Partnership Firm (LLP) registered under section 12 of Limited Liability Partnership Act,2008 <b>Or</b> Partnership firm, registered under Partnership Act' 1932 <b>Or</b> Proprietorship <b>Or</b> Joint Venture of two entities.
2	The bidder should have cumulative experience of executing $\geq$ 150 kWp grid connected SPV power plant and or off-grid SPV Power Plant in India during last 3 years from the date of submission of bid. (Required Document certified from SNA/Gov. Organization/SECI/DISCOM).
3	Minimum Average Annual Turn Over of the bidder/JV as computed for best 3 financial years out of last 5 financial year should amount to <b>Rs. 2 Cr.</b> (The bidder/JV should submit Audited Financial Statement for last 5 years to this effect).
4	Bidder(s) should have positive (+ve) Net worth at the close of the preceding financial year
5	Bidder(s) should have valid GST registration certificate
6	Bidder(s) should not have been black listed by any Government Department, Organization, Agency, Authority or any Public Sector Undertaking owned by the Government during the last three years as on the date for Bid submission.

❖ The Financial Bid sheet of only those bidders shall be opened which qualifies in "Minimum Eligibility Condition" as above

### BID INFORMATION SHEET

S. No.	Activity	Duration
1.	Online Sale / Download date of Tender documents	From <b>Upto 02.02.2019 (18:00 Hrs)</b>
2	Cost of Bidding Document <b>(Submission of cost of bidding document is mandatory for all bidders).</b>	<b>Non-Refundable</b> INR 10000.00 to be paid through (Demand Draft (DD) in favor of Bihar Renewable Energy Development Agency" payable at Patna. (Bank details: - A/c No. - 50091813870, Allahabad Bank, Patna Main Branch, IFSC CODE: -ALLA0210003). Separate Tender processing fee of Rs. 1180/- to be paid through online mode i.e. internet payment gateway (Debit/credit card, Net banking, NEFT, RTGS).
3.	Bid Security (EMD) <b>(submission of EMD is mandatory for all bidders)</b>	INR 2,00,000 in form of a Demand Draft (DD) from any Nationalized /Scheduled Commercial Bank.
4.	Pre-bid conference	<b>18.01.2019 at 11.00</b> Hrs. (Bihar Renewable Energy Development Agency", 2 <sup>rd</sup> Floor, "Vidyut Bhawan", Building-II, South Wing, Bailey

		Road, Patna – 800021.)
5.	Date / Time for online submission/ uploading of offer/Bid (Online)	04.02.2019 up to 16:00 Hrs. ( <a href="http://www.eproc.bihar.gov.in">www.eproc.bihar.gov.in</a> )
6.	Submission of Tender Document Fee, EMD in DD and Tender Document with Relevant Test Report & Certificate in Hard Copy/ Original	05.02.2019 at 14:00 Hrs (Demand Draft (DD)) in favour of Bihar Renewable Energy Development Agency" payable at Patna. (Bank details: - A/c No. - 50091813870, Allahabad Bank, Patna Main Branch, IFSC CODE: -ALLA0210003).
7.	Date & time for opening of Technical Bid	05.02.2019 at 15:30 Hrs. ( <a href="http://www.eproc.bihar.gov.in">www.eproc.bihar.gov.in</a> )
8.	Validity of Bid	180 days from the date of opening of Financial Bid.
9.	Date time and place of opening of Financial Bid	To be informed later after technically qualified bidder. ( <a href="http://www.eproc.bihar.gov.in">www.eproc.bihar.gov.in</a> )

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

1. **Bidders are required to submit the documentary proof for the qualifications mentioned above.**
  2. Notwithstanding anything stated above, BREDA reserves the right to assess the capabilities and capacity of the Bidder to perform the Contract, the circumstances warrant such assessment in the overall interest of BREDA.
  3. **The bidders are required to submit documents as mentioned below:**
    - ✓ Envelope I containing Cost of Bidding document(in the form of DD)/ Exemption Certificate (if applicable) & Covering Letter;
    - ✓ Envelop II containing EMD(in the form of DD)/ Exemption Certificate (if applicable);
    - ✓ Envelope III containing signed tender document;
    - ✓ Envelop IV containing Envelop I, Envelope II and Envelop III
- All documents must be received by BREDA not later than the time and date stated in the Invitation for Bid (IFB). Each Envelops should be duly sealed, stamped and marked with RFP Number and should be subscribed on the envelop as "Request for Proposal (RFP) for Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar." All formats and relevant documents as required in the RFP shall be spiral bounded and should be flagged and page number with proper seal & signature on each page. Details of flag should be mentioned in the covering letter.
4. For support related to e-tendering process, bidders may contact at following address "e- Procurement HELP DESK, First Floor, Plot No.- M/22, Road No.-25, Sri Krishna Nagar, Bank of India Compound, Patna-800001, Contact No: 0612-2523006; 7542028164". Vendor may visit [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in).
  5. Detailed NIT/RFP can be seen at website- [www.breda.bih.nic.in](http://www.breda.bih.nic.in) or [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in).
  6. For participating in e-tendering process, the contractor shall have to get them registered to get user ID, Password and digital signature at [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in). This will enable them to access the website [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in) and download/participate in e-tender. Those whose are not registered in e-tendering systems, they may contact "e- Procurement HELP DESK, First Floor, Plot No.- M/22, Road No.-25, Sri Krishna Nagar, Bank of India Compound, Patna-800001, Contact No: 0612-2523006; 7542028164" for registration.
  7. BREDA will not be responsible, in case of any delay, due to any reason whatsoever, in receipt of Bid Documents.
  8. The BREDA reserves the right to reject any or all Bids or cancel/withdraw the Invitation for Bids (IFB) without assigning any reason whatsoever and in such case, no Bidder/ intending Bidder shall have any claim arising out of such action.
  9. BREDA intends to undertake a competitive bidding process in order to shortlist and qualify suitable Bidder, who shall be eligible for evaluation of their price bids towards selection of the successful bidder in terms of the RFP for award of the project.
  10. The successful Bidder, at the end of the bidding process, shall be awarded the contract by BREDA to implement the project on EPC basis. The Contractor (the successful Bidder) shall be responsible for design, engineering, procurement, construction and maintenance of the project in terms of the agreement to be signed between the contractor and BREDA. Further, the contractor shall be responsible for remedying all defects and deficiencies, expected during the defects liability period in terms of the EPC contract.

11. The detail of the bidding process and summary of the scope of construction works for the project is included in the RFP document.

12. **Essential Requirement**

- In the unlikely event of the server for [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in) being down for more than two consecutive hours (in the period from midnight to closing time for receipt of tenders) on the last date of receiving of bid, the last date of the same shall be extended by concerned authority only to the next working day till the last receiving time stipulated in the original NIT.
- The bidders are requested to check their file size of uploaded documents at the time of submission & they should ensure that work file is uploaded. If they feel that the complete file is not uploaded then they should click on cancel & update the same before submission. The bidders should satisfy themselves of download ability/ visibility of the scanned & uploaded file by them.
- The bidders must use MS Office- 2003 version. File size should be less than 5MB and should be in M.S. word, M.S. Excel, PDF and JPEG Formats.
- No claim shall be entertained on account of disruption of internet service being used by bidders. Bidders are advised to upload their bids well in advance to avoid last hour's technical snags.
- In exceptional circumstances, the competent authority, BREDA may solicit the Bidder's consent to an extension of the period of validity.
- Bids that are rejected during the bid opening process shall not be considered for further evaluation, irrespective of the circumstances.
- The bidders shall submit their eligibility and qualification details, financial bid etc., in the online standard formats given for respective tenders in e-Procurement website ([www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in)) at the respective stage only.
- The bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria and other certificate /documents in the e-Procurement website with sign and seal.
- The bidder shall sign on the supporting statements, documents, certificates, uploaded by him, owning responsibility for their correctness /authenticity.
- Corrigendum/ Addendum, if any, will be published on the website itself.

***Bid along with required documents must be uploaded at e-procurement website i.e. [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in) and must be submitted in hard copy at the following address:***

**Bihar Renewable Energy Development Agency**  
(A Govt. Agency under Energy Department)  
2<sup>nd</sup> Floor, Vidyut Bhawan-II, Bailey Road,  
Patna- 800001, Bihar  
Tel: 0612-2505734 Fax: 0612-2505572, Toll Free No:- 18003456204  
Website: [www.breda.bih.nic.in](http://www.breda.bih.nic.in)

The RFPs will be evaluated by the ***BREDA Management Committee*** for approval and selection.

**Deputy Director,  
BREDA, Patna**

## **DISCLAIMER**

1. Though adequate care has been taken while preparing the RFP document (inclusive of Formats and Annexure), the Bidder shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from prospective Bidder on or before pre-bid meeting date, it shall be considered that the RFP document is complete in all respects and has been received by the Bidder.
2. BREDA reserves the right to modify, amend or supplement RFP documents including all formats and annexure at any time before Bid submission date. Interested Bidders are advised to follow and keep track of [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in) web-site for updated information. BREDA is not obligated to send/ communicate separate notifications for such notices/ amendments/ clarification etc. in the print media or individually. BREDA shall not be responsible and accountable for any consequences to any party.
3. While this RFP has been prepared in good faith, neither BREDA nor their employees or advisors make any representation or warranty, expressed or implied, or accept any responsibility or liability, whatsoever, in respect of any statement or omissions herein, or the accuracy, completeness or reliability of information and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP, even if any loss or damage is caused by any act or omission on their part.
4. The capitalized term or any other terms used in this RFP, unless as defined in RFP or repugnant to the context, shall have the same meaning as assigned to them by the Electricity Act, 2003 or Company Act, 1956/2013, Income Tax Act, and the rules or regulations as per applicable Acts.

## **INTERPRETATIONS**

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

## **SECTION - 1**

### **INSTRUCTIONS TO BIDDERS**

#### **1.1 Examination and Understanding of Bidding Documents**

In connection with the Invitation for Bid (IFB), Bihar Renewable Energy Development Agency (hereinafter called "BREDA") issues this Bidding Document for Empanelment of Bidders for Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance for 5 year of 1kWp to 100 kWp Rooftop Solar Off Grid Power Plant at various locations in Bihar.

The Bidder is advised to read carefully all instructions and conditions appearing in the Bidding Documents and understand them fully. All information required as per the Bidding Documents must be furnished. Failure to provide the information as required may render the Bid as non-responsive to the Bidding Documents.

The Bidder shall be deemed to have examined the Bidding Documents, to have obtained its own information in all matters whatsoever that might affect the carrying out of the works and to have satisfied himself to the sufficiency of its Bid. The Bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labor involved, wage structures and as to what all works it has to complete in accordance with the Bidding Documents irrespective of any defects, omissions or errors that may be found in the Bidding Documents.

#### **1.2 Scope of Work**

The scope of the work for the bidder include Design, Supply, Installation, Testing & Commissioning and Comprehensive Maintenance for 5 year of 1 kWp to 100 kWp Rooftop Solar off Grid Power Plant at various location in Bihar including Bi-directional net meter provision .

All the expenditure to be incurred for supply, testing, installation and commissioning of Bi-directional meter shall be borne by the developer.

All the expenditure to be incurred for the Comprehensive Maintenance Contract (including Regular Operation and Maintenance (O&M ) of the every system for the period of 5 years from the date of commissioning shall be borne by the developer.

- a. The O&M/ CMC for the period shall cover the tools and tackles, spare parts, any consumables, and any comprehensive maintenance contract required to be entered for any of the accessories or systems.
- b. Each system must be guaranteed against any manufacturing/ design/ installation defects for a minimum period of 5 years.
- c. PV modules used must be guaranteed 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.
- d. During the CMC/ O&M period, MNRE / BREDA / OWNER users will have all the rights to cross check the performance of the installed system. BREDA/Owner may carry out the frequent inspections (that also include inspection by third party) of system installed and randomly pick up its components to get them tested at Govt. / MNRE approved any test centre. If during such tests any part is not found as per the specified technical parameters, BREDA/OWNER will take the necessary action. The decision of BREDA/Owner in this regard will be final and binding on the bidder.
- e. All the expenditure to be incurred for the operation and maintenance of the plant including remote monitoring cost for the period of five years from the date of commissioning shall be borne by the developer.

- f. The O&M of the plant for the period shall cover the tools and tackles, spare parts, any consumables, and any comprehensive maintenance contract required to be entered for any of the accessories or systems. Rates quoted should be firm and fixed. No price variation and escalation will be allowed.
- g. The bidder shall play an active role in selection of beneficiary as the beneficiary cost may or may not be involved.

### **1.3 Cost of Bidding**

- 1.3.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and BREDA shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

### **1.4 Clarifications and Amendments**

- 1.4.1 The Bidder requiring any clarification of the Bidding Documents shall make a request to the BREDA in writing provided that such request is received not later than Pre-bid. BREDA will respond to any request for clarification, which shall be in writing with copies to all Bidders who have purchased the Bidding Document including a description of the query but without identifying its source.
- 1.4.2 At any time prior to the deadline for submission of Bids, BREDA may amend the Bidding Document by issuing amendment/addendum. Any amendment/addendum issued shall be part of the Bidding Document and shall be communicated to all who have obtained the Bidding Document from the BREDA.
- 1.4.3 Amendments/addendum to Bidding Documents issued by BREDA, if any, must be signed and submitted along with the Bid and the Bid submitted by the Bidder shall take into account all such amendments/addendum. If acceptance of the terms and conditions given in the Bidding Documents/amendment has any price implications, the same shall be included in the price part.

### **1.5 Language of Bid**

- 1.5.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the BREDA, shall be written in English language. If the supporting documents and printed literature that are part of the Bid are in another language, they should be accompanied by an accurate translation of the relevant passages in English language in which case, for purposes of interpretation of the Bid, such translation shall govern.

### **1.6 Period of Validity of Bids**

- 1.6.1 Bids shall remain valid for a period of 180 days from the date of opening of Financial Bid. A Bid valid for a shorter period shall be rejected by the BREDA as non-responsive.
- 1.6.2 In exceptional circumstances, prior to the expiration of the Bid validity period, BREDA may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bidder accepts to extend the period of Bid validity, the validity of Bid Security shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid.

### **1.7 Bid Security**

- 1.7.1 The Bidder shall furnish, a Bid Security in a separate sealed envelope in the amount and currency as stipulated in the Invitation for Bid (IFB).
- 1.7.2 The Bid Security shall be in the form of a DD from any Nationalized / Scheduled Commercial Bank.
- 1.7.3 Any Bid not accompanied by prescribed Bid Security shall be rejected by BREDA as non-responsive.



- 1.7.4 The Bid Security of all the unsuccessful Bidders will be returned as promptly as possible, but not later than twenty-eight (28) days after the expiration of the Bid validity period. The Bid Security of the Successful Bidder to whom the Contract is awarded will be returned when the said Bidder has signed the Contract Agreement and has furnished the required Contract Performance Guarantee.
- 1.7.5 The Bid security may be forfeited.
- (i) If the Bidder withdraws or varies its Bid during the period of Bid validity.
  - (ii) If the Bidder does not accept the arithmetical correction of its Bid Price
  - (iii) If the Bidder/its representative commits any fraud while competing for this Contract.
  - (iv) In the case of a Successful Bidder, if the Bidder fails to sign the Contract Agreement and/or to furnish the required Contract Performance Guarantee within the specified time limit.
- 1.7.6 No interest will be paid for any type of money kept with BREDA.

## **1.8 Deviations to Commercial Conditions**

- 1.8.1 The Bidder is not permitted to take deviation to any of the Commercial Conditions contained in Instructions to Bidders, Bids Evaluation Procedure and General Conditions of Contract. In case deviation is taken by the Bidder to any of the conditions of the aforesaid Sections, its Bid will be considered as non-responsive.

## **1.9 Basis of Price**

The price quoted should include all taxes and duties. A supplier/ contractor shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government tax norms will be payable by the contractor. If any new tax/duty is levied during the contract period the same will be borne by the firm exclusively. TDS will be deducted from the payment of the contractor as per the prevalent laws and rules of Government of India and Government of Bihar state in this regard. The Bidders shall quote the price for the entire system and installation/distribution services on “EPC Single Point Responsibility Basis” such that the total Bid price covers all the Contractor’s obligations mentioned in or to be reasonably inferred from the Bidding Document in respect of the design, manufacture, including procurement, delivery, distribution of the systems/equipment. This includes all requirements under the Contractor’s responsibilities for testing of the system/equipment and the acquisition of all permits, approvals and licenses, etc.; Comprehensive maintenance, maintenance and training services and such other items and services as may be specified in the Bidding Document, all in accordance with the requirements of the General Conditions of Contract and Technical Specifications. Items against which no price is entered by the Bidder will not be paid for by the BREDA when executed and shall be deemed to be covered by the prices for other items.

**Maximum allowable Project cost** for this model is at the rate of Rs.100/- per Wp for capacity of 1 – 10 kWp with Battery back-up 6 hrs. and Rs.90/- per Wp for capacity of 11 – 25 kWp with Battery back-up 6 hrs. (As per latest MNRE Benchmark Cost) and all the bidders have to follow the latest MNRE Benchmark cost. However, maximum allowable project cost from 26 – 100 kWp is Rs. 90/- per Wp.

## **1.10 Signing, Sealing and Submission of Bids**

- 1.10.1 BID shall be submitted through e-tendering mode only at ([www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in))
- 1.10.2 The bidders are required to submit Envelope I containing Cost of Bidding document and Envelop II containing EMD and Envelope III containing signed tender document, all in a fourth envelop i.e.

Envelop IV which must be received by BREDA at the address and not later than the time and date stated in the Invitation for Bid (IFB). The Envelop IV should be sealed and marked with RFP Number and should be subscribed on the envelop as **Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar.**

- 1.10.3 However each envelopes should be duly sealed and stamped with RFP no. and respective Envelop number. Document not found in required fashion will not be acceptable.
- 1.10.4 In case a specified date for submission of Bid being declared a holiday for BREDA, the Bids will be received up to the appointed time on the next working day. BREDA shall not consider any Bid that is received after the deadline for the submission of Bids and the same shall be declared as received late, rejected and returned unopened to the Bidder.
- 1.10.5 One Hard Copy of Technical Bid shall also be submitted to BREDA office at the time of Submission of tender Fee & Bid Security fee.

### **1.11 Bid Opening**

- 1.11.1 The BREDA will open the Commercial Bids, on the date and at the place specified in the Invitation for Bid (IFB) through e-tendering mode only at ([www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in))
- 1.11.2 The Financial Price Bids of those Bidders who have been found to be technically qualified to the Bidding Documents will be opened in the presence of the Bidders representatives who choose to attend at the address, date and time intimated by BREDA.

### **1.12 Bids Evaluation Procedure**

- 1.12.1 Financial Price Bids shall be evaluated in the manner as specified in Bids Evaluation Procedure.

### **1.13 BREDA's Right to Accept any Bid, and to Reject any or all Bids**

- 1.13.1 BREDA reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid securities, shall be promptly returned to the Bidders.

### **1.14 Award of Contract**

- 1.14.1 Subject to Clause 1.13, BREDA shall award the Contract to the bidder whose offer has been determined to be the lowest (L1) evaluated Bid and is substantially responsive to the Bidding Document. Other Bidder may be asked to match rate and depending on their consent, maximum 2 bidders in each category shall be considered including L1.
- 1.14.2 Based on the price bid quoted by the bidders, BREDA shall arrange the bids in the ascending order i.e. L1, L2, L3, \_\_\_ (L1 being the lowest project cost) in each slab
- 1.14.3 **Lowest bidder (L1) in each slab will be declared as the successful bidder and will be issued work order.**
- 1.14.4 **Capacity allocation to L1 shall be maximum 60% of capacity available with BREDA in that slab and 40% of the capacity in that slab to L2 who match the L1 price. In case L2 refuses to match the rate of L1, L3 shall be considered and given the opportunity.**
- 1.14.5 BREDA reserves the right to vary the quantity of any of the system (SPV Power Plant) or its component or delete altogether at the time of Award of Contract and during the validity period of Contract Agreement.
- 1.14.6 BREDA shall issue Notification of Award of the Contract to the Successful Bidders prior to the expiration of the period of Bid validity in original along with a copy thereof and the Successful Bidders shall return the copy via e-mail and / or Hard copy duly accepted and signed by the authorized

person on behalf of the Successful Bidder within three working days clearly indicating the date of signing, the name and designation of the signatory within such period as specified in the Notification of Award.

- 1.14.7 Until a formal Contract is prepared and executed, the Notification of Award and its acceptance communicated by the Successful Bidder as aforesaid shall constitute a binding Contract.

### **1.15 Signing of Contract**

- 1.15.1 After receiving of acceptance of NoA, within three (3) working days, the Successful Bidders shall sign the Contract Agreement with BREDA.

### **1.16 Completion Time Schedule**

- 1.16.1 The Plant and Equipment covered under this Bidding Document and, in particular, in the Technical Specifications of the Bidding Document shall be designed, manufactured, supplied, erected, tested and commissioned at the Site within the completion period. The system is allowed to be get inspected, supplied, installed and commissioned within three (3) months time from the date of issue of work order (ZERO DATE).
- 1.16.2 In case the Contractor (Successful Bidder) fails to achieve the completion of the system and establishing agreed guaranteed technical parameters within the period specified in the Technical Specification from the work order date (ZERO DATE), BREDA, without prejudice to its other remedies under the contract, *shall levy a penalty on the Contractor at the rate of 0.5% of the Contract Price per week of delay or part thereof subject to maximum of ten percent (10%) of the Contract Price according to issued work order, unless the time extension is allowed by Director, BREDA.* Once the maximum is reached, BREDA may consider termination of the remaining work/ contract.
- 1.16.3 The bidder will give Name and full contact detail of service center and its employee placed at the service center at time of supply of material. It should be followed by contact details of superior/other person with its response time under hierarchical order such that if the lower level person does not response within given time the higher level be consulted. The hierarchy of at least three levels with response time at each level be provided. *A penalty of INR 500/- per day per System will be imposed on bidder after 7 days from the day it was informed about the defect/rectification till the same is rectified and BREDA may supervise the maintenance Log-Book for the redressal mechanism.*

### **1.17 Contract Performance Guarantee**

- 1.17.1 The Bidder shall furnish Contract Performance Guarantee of 10% of intimated work order value in the form as specified in the General Conditions of Contract.

### **1.18 Reinstallation & Relocation works**

- 1.18.1 If the case arises under various situations that the reinstallation & relocation of plant (within the premises) has to be done, the work will be taken up by the respective developer and the cost of the work shall be upto 10% of plant/ system cost.

### **1.19 Scope of operation & maintenance (CMC) of SPV power plant for a period of 5 years**

All materials, components of the power plant during the period of maintenance shall be the property of BREDA Regular operation & maintenance of the SPV Power Plant for a period of five years of warranty / CMC after commissioning along with supply of consumable items as and when necessary and submission of daily performance data of power plant shall come, under the operation & maintenance contract.

The break down maintenance of the entire system including supply of necessary spare parts, if any are already under the coverage of warranty clause of the General Terms & Condition and special terms & condition for a period of 60 months from date of commissioning of power plant. The operation and maintenance schedule of the SPV power plant during the 5 years contract period shall be as detailed below.

1. 5 years operation and maintenance period shall begin on the date actual commissioning for the power plant. The requisite numbers of qualified and trained personnel are required to be deputed round the clock for the same.
2. The security of the power plant will rest with the suppliers till such time operation and maintenance of the power plant is not handed over to the purchaser.
3. The deputed personnel shall be qualified and well trained so that they can handle any type of operation hazard quickly and timely.
4. The deputed personnel shall have to keep daily log sheet for the power plant as per format to be supplied after commissioning of the power plant.
5. The deputed personnel shall be in a position to check and test all the equipment regularly, so that preventive actions, if any, could be taken well in advance to save any equipment from damage. Any abnormal behavior of any equipment shall be brought to the notice of BREDA immediately for appropriate action.
6. The deputed personnel shall keep clean the power plant in all time. Other activities in the control room will not be allowed under any circumstances.
7. Normal and preventive maintenance of the power plant such as cleaning of module surface, all electrical connection, changing of tilt angle of module mounting structure, cleaning & greasing of battery terminals etc.
8. During operation & maintenance period of 5 years of the power plant, if there is any loss or damage of any component of the power plant (not due to miss management / miss handing of user) due to any other reasons, what-so-ever, the supplier shall be responsible for immediate replacement / rectification. The damaged component may be repaired, if it is understood after examination that after repairing performance of the component shall not be degraded, otherwise the defective component shall have to be replaced by new one without any extra cost.
9. List of spare parts & measuring instruments are to be supplied along with the systems may be specified in the bid.

**10. Operation & Maintenance Instructions:**

- 10.1 The successful bidder shall furnish before one month prior to completion of the works. 02 copy of operating and maintenance instruction in English / Hindi for approval and supply 02 set of the approved manuals of instructions at the time of inspection and taking over of the equipment. These manuals shall properly bound in book form and contain all information, description of equipment, diagram etc. necessary to enable the customer to operate and maintain the whole system.
- 10.2 Proper Operation & Maintenance of the plant shall be carried out by the contractor during O & M period of 60 months with quarterly & annual review checkup of plant and equipment in detail with purchaser/ Owner.
- 10.3 Properly qualified and trained personnel well versed in O&M of SPV plants and knowledge of computers shall be deployed at site for operation & maintenance.
- 10.4 Proper repainting, re-coating of exposed surfaces to prevent rusting & replacement of worn out parts shall be carried out along with the maintenance of the SPV Power Plant.
  - ✓ Plant personnel shall be deputed on such basis so that a qualified / trained person with a minimum Technical qualification (Diploma in Engineering) should be available at site during the operation & maintenance period.
  - ✓ Supplier shall depute an engineer of their company for the operation and maintenance of the plant who shall be fully responsible for the complete O&M and optimum operation of the plant. The name and contact nos. of this engineer shall be notified to the purchaser for the purpose of contact, responsibility and correspondence with regard to all trouble shooting.

- ✓ Replacement & repair of damaged parts shall be carried out immediately during the O&M period so as to ensure at least 95% uptime.
- ✓ Plant operation reports in a format prescribed by BREDA shall be furnished by the supplier monthly basis (Mandatory).
- ✓ The supplier shall ensure replacement of worn out parts and component including battery pack during the operation & maintenance period for which purpose the supplier shall carry and maintain minimum inventory levels of spares at the plant and its works.
- ✓ In case of delay in repair & maintenance and non-observance of BREDA, O&M schedule, the BREDA shall have the right to impose any penalties as per tender terms and condition including forfeiture of performance security and blacklisting.
- ✓ Round the clock maintenance (routine preventive breakdown and capital maintenance) of complete plant and equipment's including battery banks, SPV Array, PCU and Remote Monitoring System (RMS).

**10.5 Routine, preventive, breakdown & Capital Maintenance:**

- ✓ Routine and Preventive maintenance shall include such checks and maintenance activities round the clock on weekly, fortnightly, monthly, quarterly, half yearly and yearly basis which are required to be carried out on all the components of the power plant to minimize breakdown and to ensure smooth and trouble free running of the power plant. The supplier shall be responsible to carryout routine and preventive maintenance and replacement of each and every component/equipment of the power plant and he shall provide all labour, materials, consumables etc. for routine and preventive maintenance of his own cost.
- ✓ Breakdown maintenance shall mean the maintenance activity including repairs and replacement of any component or equipment of the power plant which is not covered by routine and preventive maintenance and which is required to be carried out as a result of sudden failure / breakdown of that particular component or equipment while the plant is running. The supplier shall be responsible to carry out breakdown maintenance of each and every component of the power plant and he shall provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance at his own cost irrespective of the reasons of the breakdown/ failure.
- ✓ Capital maintenance shall mean the major overhaul of any component or equipment of the power plant which is not covered by routine, preventive and breakdown maintenance which may become necessary on account of excessive wear & tear, aging which needs repair / replacement. The capital maintenance of power plant and all civil structures shall normally be planned to be carried out on an annual basis. For this purpose a joint inspection by the supplier and purchaser shall be carried out of all the major components of the power plant, about two months in advance of the annual maintenance period. In order to ascertain as to which components of the power plant require capital maintenance. In this regard the decision of the purchaser will be final and binding. However, if the condition of any plant and component warrants its capital maintenance at any other time, a joint inspection of the purchaser and supplier shall be carried out immediately on occurrence of such situation and capital maintenance shall be carried out by arranging the shutdown of the plant / part of the plant. If required, in consultation with concerned authorities. The decision of the purchaser shall be final and binding.

## SECTION – 2

### BIDS EVALUATION PROCEDURE

#### 2.1 Evaluation of Commercial Bids

- 2.1.1 BREDA will examine the Bids to determine whether they are complete, whether required securities have been furnished, whether the documents have been properly signed and whether the Bids are generally in order.
- 2.1.2 Prior to the detailed evaluation, BREDA will determine whether each Bid is generally complete, acceptable and is substantially responsive to the Bidding Documents. BREDA's determination of a Bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence. If a Bid is not substantially responsive, it will be rejected by BREDA, and may not subsequently be made responsive by the Bidder by correction of the nonconformity.
- 2.1.3 **BREDA reserves the right to seek clarifications / information considered necessary during examination / evaluation of the Bids submitted for other than minimum eligible condition and the same shall be furnished by the Bidder within the date and time specified by BREDA.** Any clarification submitted by a Bidder that is not in response to a request by BREDA shall not be considered. BREDA request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors found by BREDA in the evaluation of the Bids. If a Bidder does not provide clarifications of its Bid by the date and time set in BREDA's request for clarification, its Bid may be rejected.
- 2.1.4 The BREDA will carry out a detailed evaluation in order to determine whether the technical aspects are in accordance with the requirements set forth in the Technical Specification and commercial aspects are in conformity with the Bidding Documents. In order to reach such a determination, the BREDA will examine and compare the technical aspects of the Bids on the basis of the information supplied by the Bidders, taking into account the following factors:
- a) The Bid that does not meet acceptable standards of completeness, consistency and details will be rejected for non-responsiveness
  - b) Achievement of specified performance criteria.
  - c) Any other relevant factors, if any, that the BREDA deems necessary or prudent to take into consideration.
  - d) Compliance with the time schedule as specified in the Bidding Documents.

## SECTION - 3

### GENERAL CONDITIONS OF CONTRACT

#### 3.1 Definitions

3.1.1 The following words and expressions shall have the meanings hereby assigned to them:

- (a) "Bid" means the Bid or the proposal and the attachments thereto submitted by the Bidder in the form and manner specified in the Bidding Documents
- (b) "Bidder" means a person who submits its Bid in response to the Invitation for Bid (IFB) issued by BREDA.
- (c) **"Owner" Means BREDA/Users/Beneficiary/Purchaser.**
- (d) "Contract" means the Contract Agreement entered into between BREDA and the Contractor; together with the Contract Documents referred to herein; they shall constitute the Contract, and the term "the Contract" shall in all such documents be construed accordingly
- (e) "Contract Documents" means the documents listed below (including any amendments thereto):
  - (i) The Contract Agreement between BREDA and the Contractor.
  - (ii) Acceptance of Notification of Award till the execution of Contract Agreement between BREDA and the Contractor.
  - (iii) Any issued Bid Clarification / Amendments / Corrigendum
  - (iv) Tender Document
  - (v) Designs and Drawings
  - (vi) Bid submitted by the Successful Bidder (Financial Price Bids)

If there is an ambiguity or discrepancy or conflict within the Contract Documents, the priority of the Documents shall be in the order in which the Contract Documents are listed above. All Documents forming part of the Contract Documents are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

- (f) "Chartered Accountant" shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949;
- (g) "Contractor" means the person(s) whose Bid to perform the Contract has been accepted by BREDA and is named as Contractor in the Contract Agreement, and includes the legal successors or permitted assigns of the Contractor.
- (h) "Contract Price" means the sum specified in the Notification of Award and the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- (i) "EPC" means Engineering, Procurement and Construction
- (j) "Government" means Government of India and /or Bihar Government and includes its departments, bodies, agencies, authorities etc.
- (k) "Guarantee/ Warranty Period" means the period during which the Contractor shall remain liable for repair or replacement of any defective part of the Works performed under the Contract.
- (l) "Notification of Award" means notification in writing issued by BREDA to the Successful Bidder that its Bid has been accepted
- (m) "Party" means the BREDA or the Contractor, as the context requires, and "Parties" means both of them
- (n) "Person" means any individual, corporation, partnership, joint stock company, body corporate, trust, unincorporated organization, joint venture, government or political subdivision or agency thereof
- (o) "Plant" Design, Supply, Installation, Testing & Commissioning and Comprehensive Maintenance for 5 year of 1kWp to 100 kWp Rooftop Solar Off Grid Power Plant at various location in Bihar
- (p) "Site" or "location", means all across Bihar.
- (q) "Written" or "In Writing" means handwritten, typewritten, printed or electronically made, and resulting in a permanent record
- (r) "Works" shall mean scope of work, engineering, design, manufacture, supply of plant and equipment, civil works, labor, services and complete erection, testing, commissioning of the equipment/ system including all transportation, handling, unloading, storage etc. to be carried out by the Contractor as per the Contract.

### **3.2 Amendment**

3.2.1 No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each Party hereto.

### **3.3 Applicable Laws**

3.3.1 The Contract shall be governed by and interpreted in accordance with the laws of India.

### **3.4 Terms of Payment**

- (i) Forty (40) percent of the system cost on completes delivery of Plant and Equipment at Bihar located Store / Warehouse / Godown as specified in the Bidding Documents after receipt of invoice. The following test certificates will be required for releasing the payment:
  - a) Material dispatch clearance certificate that released after complete material inspection.
  - b) The BOS (Balance of System) items/ components of the SPV Power Plants/ systems deployed under the project must conform to the latest edition of IEC/Equivalent BIS Standards/MNRE specification accordingly test certificate of each plant and equipment i.e. inverter, battery, Module test certificates, cables, junction box/enclosures, lightning arrestor, Structures wind load bearing capacity certificate (Stadd pro report), GI certificate for Module Mounting Structures (MMS) will be required.
  - c) The payment will be released only after the complete material inspection with all mentioned test certificates and reports, after verification of submitted report verified from the issued lab.
- (ii) Fifty (50) percent on completion of erection, testing and commissioning of the Plant and Equipment to the complete satisfaction of the Owner and after successful completion and submission of Photographs of Plant along with beneficiaries/authorized representative and a copy of respective I-V curves of the modules, complete MNRE inspection format(A,B and C) in accordance with the provisions of the Technical Specifications and as approved by the Owner after receipt of invoice (original + two copies) along with the supporting documents of completion of Works, Service centre details with contact person and mobile number.

Note: The onus of signing and submission of the required MNRE format (A, B & C) will be on the bidder itself.

The payment will be released only after the inspection has been done and the reports been submitted.

- (iii) Balance 10% of the contract price shall be paid in 5 yearly installments (2% per year) towards Comprehensive maintenance (which shall include regular Operation and Maintenance). This amount shall be payable for a period of five years from the date of commissioning of the Plant, and will be released in equal installments each year subject to performance of the Plant according to the Technical Parameters as provided in the Technical Specifications and to the satisfaction of the Owner.

#### **Note:**

- The bidder is required to submit a quarterly CMC report along with a consolidated 12 months CMC report of the plants, satisfaction report of beneficiary and a copy of the service log book along with the invoice for CMC.
- The bidders are required to submit all the required documents for the release of payments.

### **3.5 Contract Performance Guarantee/Security**

- (i) The Contractor shall provide to BREDA within 7 (seven) days of 'Intimation of Work Order', the Contract Performance Guarantee in the form of an unconditional and irrevocable, on demand Bank Guarantee equivalent to 10% of the Contract Price for the due performance of its obligations under the Contract from a Nationalized/ Scheduled Commercial Bank in the form approved by BREDA. The work order shall be issued after the submission of 10% Contract Performance Guarantee.
- (ii) The period of validity of the Contract Performance Guarantee shall be twenty one (21) months from the date of intimation of work order.



- (iii) If the Contractor fails to fulfill obligations under the Contract, the proceeds of Contract Performance Guarantee/Bid Security shall be appropriated by BREDA as part compensation for any loss resulting from Contractor's failure to perform and fulfill the various obligations under Contract without prejudice to any other rights or remedies to which BREDA may be entitled to under the Contract and the applicable laws.
- (iv) The Contract Performance Security shall be discharged by BREDA within thirty (30) Days from the date of expiration of the validity period as provided hereinabove.

**3.6 Supply, Erection, Testing, Commissioning & Inspection of Plant**

- (i) The Plant shall be implemented in accordance with the Technical Specifications contained in Section IV of the Bidding Documents.
- (ii) Material shall be strictly as per tender terms and specifications. If there is any left out specification, the same shall be considered as per the MNRE specification/applicable latest BIS/International Standards.
- (iii) It shall be the sole responsibility of the contractor to get verified the quality & quantity of the supplied material at the site of delivery with complete test reports and certificates.
- (iv) Contractor, wherever applicable, shall after proper painting, pack and crate all the equipment in such manner as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till time of installation. Contractor shall be held responsible for all damage due to improper packing.
- (v) Any material /instrument required for completing /successful running of the project which is not mentioned in the tender will be provided by the bidder in the approved rates only and no additional payment shall be made.
- (vi) The service centers are required to maintain a service log book for complains redressal of the beneficiary as per the format attached below:

Sr. No.	Name of Beneficiary	Address & location of the beneficiary	Date of Complaint	Date of complaint redressal	Issue at Site	Remarks of service centre with date & Signature	Remarks of beneficiary with date & Signature

- (vii) Inspection order will be issued within 7 days against inspection call raised by the bidder and the inspection will start within the next 7 days from the issuance of the order.
- (viii) **Note: Before raising the call of inspection, either material inspection or I & C inspection, bidders should ensure that complete material will be available at the inspection site with all necessary documents (certificates and test reports) and ensure solar power plant installed & commissioned (installed & commissioned as per tender terms and conditions) will be free from all defects.**

**3.7 Warrantees and Guarantees**

- (i) The Contractor shall warrant that the Plant and Equipment supplied under the Contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials as per tender technical specifications. The Contractor shall provide warrantee covering the rectification of any and all defects in the design of Plant and Equipment, materials insurance and workmanship for a period of five (5) years from the date of commissioning. The Contractor shall transfer all the Guarantees/ Warrantees of the different components to Owner.

**3.8 Penalty/ Liquidated Damages**

The delivery should be guaranteed under penalty clause. In case the supplier (tenderer) fails to complete the work within the time period specified in the Work order as 3 month after issue of Work order as project Completion time, the penalty clause will be imposable. The usual terms of penalty is at the rate of 0.5% of the value of materials delayed for a week or part thereof subject to a maximum of 10% of the total value unless time extension is allowed by Director, BREDA.

Tenderer has to accept the penalty clause failing which rate contract will be considered invalid. Once the maximum is reached, BREDA may consider termination of the remaining work/ contract.

A penalty of INR 500/- per day per System will be imposed on bidder after 7 days from the day it was informed about the defect/rectification till the same is rectified and BREDA may supervise the maintenance Log-Book for the redressal mechanism.

### **3.9 Force Majeure**

- (i) Notwithstanding the provisions contained in the Bidding Documents; the Contractor shall not be liable to forfeit (a) Bid Security for delay and (b) termination of contract; if it is unable to fulfill its obligation under this Contract due to force majeure conditions.
- (ii) For purpose of this clause, "Force majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not limited to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes etc. Whether a "Force majeure" situation exists or not, shall be decided by BREDA and its decision shall be final and binding on the Contractor. BREDA may extend the date of completion for a further period corresponding to the period of force majeure.
- (iii) If a force majeure situation arises, the Contractor shall notify BREDA in writing promptly, not later than 7 (seven) days from the date such situation arises. The Contractor shall notify BREDA not later than 3 days of cessation of force majeure conditions. After examining the cases, BREDA shall decide and grant suitable additional time for the completion of the work, if required.

### **3.10 Termination of Contract**

- (i) BREDA reserves the right to terminate the Contract either in part or in full due to reasons other than those mentioned under "Force Majeure". The BREDA shall in such an event give 15 (fifteen) days notice in writing to the Contractor of its decision to do so.
- (ii) At any point of time BREDA reserves right to cancel any or all awarded work.

### **3.11 Debarred/blacklisted**

Contract with Bidder shall be subjected to continuous review of performance. Following will result in automatic debarment/blacklisting as the case may be:-

- a) non-performance with regard to quality and supply schedule based on objective criteria
- b) attempt to bribe a BREDA official
- c) found engaging in corrupt or fraudulent practices
- d) Established misbehavior and threatening officials of the BREDA
- e) Blacklisting by other state, central utilities or other government entities.

Blacklisting shall be for a period ranging from three to six years. Corrupt and fraudulent practices shall attract harshest punishment.

### **3.12 Transfer of Ownership**

- (i) The Ownership of the Plant and Equipment shall be transferred to the Owner when the Plant and Equipment are commissioned at the Site.
- (ii) Notwithstanding the transfer of Ownership of the Plant and Equipment, the responsibility for care and custody thereof together with the risk of loss or damage thereto shall remain with the Contractor until Completion of the Plant.

### **3.13 Arbitration and Jurisdiction**

- (i) Any dispute between the owner and the Contractor arising out of this Contract will first be resolved amicably between the Parties. In such cases where dispute is not resolved between the Parties, then the Parties may mutually agree to appoint an arbitrator under the provisions of Arbitration and Conciliation Act, 1996.
- (ii) Any disputes arising shall be subject to the jurisdiction of the High Court of Patna.

**SECTION - 4**  
**TECHNICAL SPECIFICATIONS**

The proposed projects shall be commissioned as per the latest MNRE technical specifications and related amendments. Any shortcomings shall lead to cancelation of project in full or part as decided by BREDA.

**1. Technical Specification:**

Technical Specification of 1 kWp to 100kWp SPV Power Plant		
S.N.	Item	Description
1	SPV Module	<ol style="list-style-type: none"> <li>1. The Crystalline Solar PV modules must be qualified as per IEC 61215 (revised)/IS 14286 standards and in addition, the modules must conform to IEC 61730-1 requirement for construction &amp; part -2 requirement for testing, for safety qualification.</li> <li>2. PV modules must be tested and approved by any one of the MNRE/NABL/IEC national or international authorized test centers.</li> <li>3. The supplier shall provide performance guarantee for the PV modules used in the power plant must be warranted for their peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.</li> <li>4. The efficiency of the PV modules should be minimum 14%.</li> <li>5. Only indigenously manufactured crystalline PV modules of minimum 250 Wp should be used with BREDA Logo</li> <li>6. The Manufacturer should provide the following minimum information must be mentioned in each module (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).               <ol style="list-style-type: none"> <li>a) Made in India (to be subscribed in words)</li> <li>b) Company Name / Logo</li> <li>c) Model Number</li> <li>d) Serial Number</li> <li>e) Year of Make</li> <li>f) BREDA logo</li> </ol> </li> </ol>
2	Battery Bank	<ol style="list-style-type: none"> <li>1. The battery bank comprising of batteries conforming to IS 15549 or latest BIS specification, low maintenance, stationary at C/10 rate should be supplied.</li> <li>2. Battery type should be Tubular GEL VRLA type or Li-ion or latest technology.(Flooded lead acid batteries are not allowed)</li> <li>3. Battery Capacity should be minimum of 7.2VAh/Wp</li> <li>4. Battery Comprises each individual cell of 2V cell of requisite capacity.</li> </ol>
3	Power Conditioning Unit within built charge controller unit	<ol style="list-style-type: none"> <li>1. Power Conditioning Unit will have following features preferably from Indian Manufacturer:               <ol style="list-style-type: none"> <li>a. Conform to IEC 61683 / IS 61683 for efficiency measurements, and IEC 60068-2 (1, 2, 14, 30) equivalent BIS standard for environmental testing</li> <li>b. Type: IGBT/ MOSFET based</li> <li>c. Output voltage: 230±2%, 1-phase, 415±2%, 3-phase</li> <li>d. Output frequency: 48.5 Hz to 51.5 Hz</li> <li>e. THD: Less than :&lt; 3%</li> <li>f. Efficiency: ≥90% (upto 5kWp) (1-phase) : ≥95% for above 5kWp systems (1-Phase or 3-phase as per requirement)</li> <li>g. Ambient temperature: 0 to 50°C</li> <li>h. Relative humidity: 90% non-condensing.</li> </ol> </li> <li>2. Electronic protection with alarm indication               <ol style="list-style-type: none"> <li>i. Short circuit (Circuit breaker &amp; electronics protection against sustained fault)</li> <li>ii. Overload i.e. 80% of load</li> <li>iii. Over temperature</li> <li>iv. Battery, PV reverse polarity</li> <li>vii. Over Voltage (automatic shut down)</li> <li>viii. Under Voltage (automatic shut down)</li> </ol> </li> <li>3. Indications:               <ol style="list-style-type: none"> <li>i. Array on/off</li> <li>ii. Battery connected, charging</li> <li>iii. PCU ON</li> <li>iv. Load on Solar &amp; battery</li> <li>v. Grid charger on</li> <li>vi. Grid on/off</li> </ol> </li> <li>4. Display Parameters               <ol style="list-style-type: none"> <li>i. Charging current and Voltage</li> <li>ii. Voltage of PV panels</li> <li>iii. Battery- Voltage along with indication of charging and discharging</li> <li>vii. Digital Display(s) of input DC SPV voltage &amp; current, AC output voltage, frequency ,power and current, along with Energy Meter at the PCU output before the manual change-over switch</li> <li>viii. System reset button</li> </ol> </li> <li>5. PCU should have data logging facility using Pen drives, Flash Drive or Memory cards.</li> </ol>

		<p>6. NOTE:-</p> <ol style="list-style-type: none"> <li>a. PCU should be capable of battery charging through solar as well as from grid.</li> <li>b. PCU should be capable of working with grid and without grid at the site.</li> <li>c. PCU should be capable of doing Auto change over between solar, battery and grid.</li> <li>d. PCU/Invertor should be grid compatible with anti-islanding protection i.e. IEC 62116</li> </ol>
4	Electrical safety, earthing and protection	<ol style="list-style-type: none"> <li>1. Surge Voltage Protection: Over Voltage Protection against atmospheric lightning discharge to the PV array is required. Protection is to be provided against voltage fluctuations in the load circuit itself and internal faults in the power conditioner, operational errors and switching transients.</li> <li>2. Cabling practice: Cable connections must be made using PVC insulated copper cables, as per BIS specifications. All cable connections must be made using suitable terminations for effective contact.</li> <li>4. Fast acting semiconductor type current limiting fuses shall be provided in PCU, and ELCB and MCB should be provided at the panel board fed by the PCU to protect from the load short circuit and earth leakage contribution.</li> <li>5. The PCU shall include an easily accessible emergency OFF button located at an appropriate position on the unit.</li> <li>6. The PCU shall include ground lugs for equipment and PV array grounding. PCU and PV array grounding shall be as per BIS standards.</li> <li>7. The PCU enclosure shall be capable of surviving climatic changes and should keep the PCU intact under all conditions in the room where it will be housed. The PCU shall be located indoor and should be either wall/ pad mounted. Moisture condensation and entry of rodents and insects shall be prevented in the PCU enclosure. Components and circuit boards mounted inside the enclosures shall be clearly identified with appropriate permanent designations.</li> <li>8. The Junction boxes, enclosures for PCUs/ Charge controllers should meet general requirements as per minimum IP 54 (for outdoor)/ IP 21 (for indoor) as per IEC 529.</li> <li>9. LA and chemical earthing should be provided at the site as per latest IEC standard</li> <li>10. Minimum 3 earthing will be required i.e. Separate earthing to be provided for LA, Separate for AC and separate for DC structure and parts.</li> <li>11. LA should be installed as per IEC 62305</li> <li>12. All Earthing should be as per IS:3043-1987(R2016)</li> <li>13. Earth resistance shall not be more than 5 ohms.</li> </ol>
5	Junction Boxes/DCDB/ACDB	<p><b>JUNCTION BOXES (JBs) or String combiner box</b></p> <ol style="list-style-type: none"> <li>1. The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Polycarbonate/Powder Coated Aluminium /cast aluminium alloy with full dust, water &amp; vermin proof arrangement minimum IP65 protected. All wires/cables must be terminated through cable lugs. The JB's shall be such that input &amp; output termination can be made through suitable cable glands.</li> <li>2. Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to minimum IP65 standard, hinged door with EPDM rubber gasket to prevent water entry. Single / double compression cable glands. It should be placed at 5 feet height or as per site requirement.</li> <li>3. Each Junction Box shall be made up of High quality material with Suitable capacity Metal Oxide Varistors (MOVs) / SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.</li> <li>4. Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification</li> <li>5. All fuses shall have DIN rail mountable fuse holders and shall be housed in thermo plastic IP65 enclosures with transparent covers.</li> </ol> <p><b>DC DISTRIBUTION PANELBOARD:</b></p> <ol style="list-style-type: none"> <li>1. DC Distribution panel board (DPB) to receive the DC output from the array field.</li> <li>2. DCDB shall have enclosure of dust &amp; vermin proof conform to minimum IP 65 protection. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.</li> <li>3. DCDB may be inside the inverter/PCU but with all necessary safety protection.</li> </ol> <p><b>AC DISTRIBUTION PANEL BOARD:</b></p> <ol style="list-style-type: none"> <li>1. AC Distribution Panel Board (DPB) IP65 protected shall control the AC power from PCU/ inverter, and should have necessary surge arrestors.</li> <li>2. The output of ACDB shall be connected to LT panel of the premises with provision of disconnect switch/isolator.</li> <li>3. All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.</li> <li>4. The changeover switches, cabling work should be undertaken by the bidder as part of the project.</li> <li>5. All the Panel's shall be metal clad, totally enclosed, rigid, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz</li> </ol>

		<p>6. The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.</p> <p>7. Should conform to Indian Electricity Act and rules (according to latest amendment).</p> <p>8. All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions</p> <table border="1" data-bbox="451 353 1426 443"> <tr> <td>Variation in Supply Voltage</td> <td>+/- 10%</td> </tr> <tr> <td>Variation in Supply Frequency</td> <td>+/- 3 Hz</td> </tr> </table>	Variation in Supply Voltage	+/- 10%	Variation in Supply Frequency	+/- 3 Hz
Variation in Supply Voltage	+/- 10%					
Variation in Supply Frequency	+/- 3 Hz					
6	Cables and Connectors	<p>1. Cables of appropriate size to be used in the system shall have the following characteristics:</p> <ol style="list-style-type: none"> <li>Shall meet IEC 60227/IS 694, IEC 60502/IS1554, IS 7098 standards</li> <li>Temp. Range: -10°C to +80°C.</li> <li>Voltage rating 660/1100V</li> <li>Excellent resistance to heat, cold, water, oil, abrasion, UV radiation</li> <li>Flexible</li> <li>Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for indoor as well as outdoor use.</li> <li>For the DC cabling, XLPE or, XLPO insulated and sheathed, UV- stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used.</li> <li>For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.</li> <li>Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour.</li> <li>The DC cables from the SPV module array shall run through a UV- stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.</li> <li>Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers.</li> <li>All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm<sup>2</sup> copper; the minimum AC cable size shall be 4.0 mm<sup>2</sup> copper. In three phase systems, the size of the neutral wire size shall be equal to the size of the phase wires.</li> <li>Cable Routing / Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter.</li> <li>Cable Jacket should also be electron beam cross-linked XLPO, flame retardant, UV resistant and black in colour.</li> <li>All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.</li> <li>Bidder will have to indicate the size and length as per system design requirement. All the cables required for the plant shall be provided by the Bidder. Any change in cabling sizes if desired by the Bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation. Cable length may vary as per the site requirements.</li> <li>Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insulation or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured cable for underground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below: BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V, UV resistant for outdoor installation IS /IEC 69947.</li> <li>The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.</li> <li>The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.</li> </ol>				

7	Mechanical Component	<ol style="list-style-type: none"> <li>1. Hot dip galvanized MS mounting structures or Aluminium may be used for mounting the modules/ panels/arrays. Minimum thickness of galvanization should be at least 80 microns for steel.</li> <li>2. Each structure should have angle of inclination as per the site conditions to generate maximum power. However to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.</li> <li>3. The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed. It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to BREDA. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed (withstand upto 150 Km/Hr).</li> <li>4. The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.</li> <li>5. Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts (anti-theft only).</li> <li>6. Aluminium structures also can be used which can withstand the wind speed of respective wind zone. Necessary protection towards rusting need to be provided either by coating or anodization.</li> <li>7. The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels</li> <li>8. Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and arrange suitable structures based on the quality of roof.</li> <li>9. The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m<sup>2</sup>.</li> <li>10. The minimum clearance of the structure from the roof level should be 300 mm</li> </ol>
8	Warranty	<ol style="list-style-type: none"> <li>1. Five years warranty for the entire system should be provided by the supplier as per the conditions of the contract.</li> <li>2. PV modules used in solar 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.</li> </ol>
9	Installation Detail, Diagram & Layout	<ol style="list-style-type: none"> <li>1. The supplier shall agree to provide installation details of the PV modules and the support structures with appropriate diagrams and drawings. Such details shall include, but not limited to, the following, <ol style="list-style-type: none"> <li>i. Determination of true south at the site</li> <li>ii. Array tilt angle to the horizontal, with permitted tolerance</li> <li>iii. Details with drawings for fixing the modules</li> <li>iv. Details with drawings for fixing the junction/ terminal boxes</li> <li>v. Interconnection details inside the junction/ terminal boxes</li> <li>vi. Structure installation details and drawings</li> <li>vii. Electrical grounding (earthing as per BIS specifications)</li> <li>viii. Inter-panel/ Inter-row distances with allowed tolerances</li> <li>ix. Complete Bill of Material, Bill of Quantity along with codes and Standards</li> </ol> </li> </ol>
10	Operation and Maintenance Manual	<ol style="list-style-type: none"> <li>1. An Operation, Instruction and Maintenance Manual, in English and Hindi, should be provided with the system.</li> <li>2. The following minimum details must be provided in the manual: <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</li> <li>iv. About battery</li> <li>v. About electronics</li> <li>vi. About charging and significance of indicators</li> <li>vii. DO's and DON'T's</li> <li>viii. Clear instructions on regular maintenance and trouble shooting of solar power plant</li> <li>ix. Name and address of the contact person in case of non-functionality of the solar power plant.</li> </ol> </li> </ol>
11	PCU/Array Size Ratio	<ol style="list-style-type: none"> <li>1. In case of projects, wherein the installed inverter capacity is less than the PV module array capacity, the inverter capacity shall be considered for declaring commissioned plant capacity and subsequently for release of payment. Similarly, for projects, wherein the installed inverter capacity is more than the PV module array capacity, the PV module array capacity shall be considered for declaring commissioned plant capacity and subsequently for release payment</li> <li>2. Maximum power point tracker shall be integrated in the PCU/inverter to maximize energy drawn from the array.</li> </ol>
12	REMOTE MONITORING	<ol style="list-style-type: none"> <li>1. The bidder shall provide unique login id and password for each installed solar power plant to BREDA and beneficiary.</li> <li>2. The following parameters are accessible via the operating interface display in real time through remote monitoring separately for solar power plant: <ol style="list-style-type: none"> <li>a) AC Voltage.</li> <li>b) AC Output current.</li> <li>c) Output Power (AC)</li> </ol> </li> </ol>

		<ul style="list-style-type: none"> <li>d) Total Unit Generation in a Day</li> <li>e) DC Input Voltage.</li> <li>f) DC Input Current.</li> <li>g) Battery Charging Voltage &amp; Charging Current</li> <li>h) Total unit consumption by battery during charging &amp; Total unit consumed by load</li> </ul>
13	Bi-directional Meter	Bi-directional meter shall be installed as per Bihar DISCOM latest guidelines and all the expenditure involved for supply, Installation and testing will be in the scope of bidder.

### BALANCE OF SYSTEM (BOS) ITEMS/COMPONENTS:

The BOS items/ components of the SPV Power Plants/ systems deployed under the Mission must conform to the latest edition of IEC/Equivalent BIS Standards/MNRE specification / as specified below:

BOS Item/System	Applicable BIS/ Equivalent IEC Standard or MNRE Specifications	
	Standard Description	Standard Number
Charge Controller/ MPPT units Power Conditioners/ PCUs ** including MPPT and Protections	Environmental Testing Efficiency Measurements Environmental Testing Anti-islanding	IEC 60068-2 (1,2,14,30)/ Equivalent BIS Std. IEC 61683/IS 61683 IEC 60068-2 (1,2,14,30)/ Equivalent latest BIS Std. IEC 62116
Storage Batteries	General requirements & Method of Testing, Capacity Test, Charge /Discharge Efficiency, Self Discharge	As per latest BIS
Cables	General Test and Measuring Method PVC insulated cables for working voltage up to and including 1100 V and UV resistant for outdoor installation.	IEC 60227/IS 694 IEC 60502/IS 1554 (Pt. I & II)
Switches/ Circuit Breakers / Connectors	General Requirements Connectors – safety A.C/D.C	IEC 60947 Part I,II,III/ IS 60947 Part I, II, III EN 50521
Junction Boxes/ Enclosures for PCUs / Charge Controllers/ Luminaries	General Requirements	IP 65 (for outdoor )/ IP 21 ( for indoor ) as per IEC 529



# FORMATS FOR SUBMITTING RFP & CHECK LIST

## Format 1

### Check List of Information/Documents Attached

Sr. No.	Particulars of Information/ Document	Format /Annexure Number	Yes/No.	Remarks
<b>A. Formats to be attached with the Bid</b>				
1	This Check List	Format 1		
2	Covering Letter	Format 2		
3	Letter of Authorization/ Power of Attorney	Format 3		
4	Project Completion Schedule	Format 4		
5	Contract Performance Guarantee	Format 5		
6	Annual Turnover and Net Worth	Format 6		
7	Certificate of the Chartered Accountant	Format 7		
8	UNDERTAKING TOWARDS NOT BEING BLACK-LISTED	Format 8		
9	Current Contract Commitments/ Work –in – Progress	Format 9		
<b>B. Documents to be attached with the Bid as Annexures in the same order as mentioned below</b>				
1.	Business Profile of Bidder Company/ Firm (Not more than one page of A4 size)	Annexure 1		
2.	Certificate of Incorporation / Registration of Bidder Company/ Firm	Annexure 2		
3	Attested copies of the valid Registration Certificates of GST/ PAN/CIN and all other applicable tax etc.	Annexure 3		
4	Memorandum and Articles of Association/ Bye- Laws of Bidder Company/ Firm	Annexure 4		
5	Audited Annual Reports for the last five completed Financial Years	Annexure 5		
6	Attested Copies of Completion Certificates with their work order issued by the Owner in respect of the Projects completed	Annexure 6		
7	Signed and stamped copy of the Bidding Document including amendments/clarifications, if any, issued by the BREDA.	Annexure 7		

**Note: All the documents submitted shall be properly indexed with paging and tagging when submitted in hard copy.**

**Format 2**

**Covering Letter**

**(On the Bidder Company Letter Head):**

**From:**

(Full name and address of the Bidder Company)

**To:**

**Director,  
Bihar Renewable Energy Development Agency (BREDA),  
(A Government Agency under Energy Department),  
2<sup>nd</sup> Floor, “Vidyut Bhawan-II”, Bailey Road,  
Patna – 800001. Bihar**

**Sub: Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar.**

NCB No: \_\_\_\_\_ Dated \_\_\_\_\_

Sir,

In response to your above referred NCB, we hereby submit our Bid for “Request for Proposal (RFP) for Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) of 1 kWp to 100 kWp Off Grid Rooftop Solar Power Plant at various location in Bihar in the Bihar in full compliance with terms & conditions in the Bidding Documents referred to therein. A copy of the Bidding Document, duly signed on each page is also submitted as a proof of our acceptance of all specifications as well as terms and Conditions therein. We have submitted the documents as per Checklist and requisite amount of Bid Security in the form of DD from a Nationalized/ Scheduled Commercial Bank.

Seal of Bidder Company

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Date \_\_\_\_\_

**Format 3**

**Letter of Authorization/Board Resolution/ Power of Attorney**

**To:**  
**Director,**  
**Bihar Renewable Energy Development Agency (BREDA),**  
**(A Government Agency under Energy Department),**  
**2<sup>nd</sup> Floor, “Vidyut Bhawan-II”, Bailey Road,**  
**Patna – 800001. Bihar**

NCB No: \_\_\_\_\_ Dated \_\_\_\_\_

Sir(s),

The Letter of Authorization / Board Resolution/ Power of Attorney to sign the Bid & enter into negotiations, furnish information/clarification, data and documents requested by BREDA in connection with the Bid and to sign the Contract in case the Works are awarded to the Bidder on behalf of the Bidder Company is enclosed herewith:

Seal of Bidder Company

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Date \_\_\_\_\_

In case Power of Attorney given by the Board of Directors/ Authorized/ competent Person of the Company already exists duly notarized by Public Notary authorizing the said person(s) to sign the Bid, enter into negotiations, furnish information/clarification, data and documents requested by the BREDA in connection with the Bid and to sign the Contract in case the Works are awarded to the Bidder on behalf of the Bidder Company, the same may be attached with the Bid and this form may be ignored.



**Format 5**

**Form of Contract Performance Guarantee**

**(To be furnished within the period specified in the Bidding Documents after the signing of the Contract)**

(To be stamped in accordance with the Stamp Act, if any, of the Country/State of the issuing Bank) :

Bank Guarantee No..... & date .....

Issue date:

(For Rs .....)

Expiry date:

Claim period:

Name & Address of the Bank.

To,  
Director,  
Bihar Renewable Energy Development Agency (BREDA),  
(A Government Agency under Energy Department),  
2<sup>nd</sup> Floor, “Vidyut Bhawan-II”, Bailey Road,  
Patna – 800001. Bihar

Whereas M/s. .... (hereinafter called the Contractors) have entered into a contract with the Bihar Renewable Energy Development Agency (here in after called BREDA), Vide Notification of award no. .... dated..... of the BREDA, for **Request for Proposal (RFP) for Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar** “on EPC Basis (hereinafter called “Station”) for the order value of INR.....

1. And whereas under the terms of the said Notification of award , the Contractor is to furnish to BREDA with an unconditional and irrevocable Bank Guarantee for an amount of .....% (.... percent) of the Contract Price for the due performance of the Contract and fulfillment of the terms thereof, we..... (Name of the Bank) ..... (hereinafter referred to as the Bank) do hereby undertake to pay to the BREDA an amount not exceeding INR..... against any loss or damage caused to or suffered or would be caused to or suffered by the BREDA by reason of any breach by the said Contractor (s) of any of the terms or conditions contained in the said Contract.
2. We..... (Name of the Bank)..... do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from BREDA stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the BREDA by reason of any breach by the same Contractor(s) of any of the terms or conditions contained in the said Contract or by reason of the Contractor's failure to perform the said Contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding INR ..... only.

3. We..... (Name of the Bank)..... further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of BREDA under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged or till .....BREDA certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Contractor (s) and accordingly discharge the Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before expiry of the period of ..... months from the time up to which the Guarantee continues to be enforceable, we shall be discharged from all liability under this Guarantee thereafter.
  
4. We..... (Name of the Bank)..... further agree with BREDA that BREDA shall have the fullest liberty, without our consent and without affecting in any manner our obligations hereunder, to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by BREDA against the said Contractor (s) and to forebear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reasons of any such variation or extension being granted to the said Contractor (s) or for any forbearance, act or omission on the part of BREDA or any indulgence by BREDA to the said Contractor (s) or by any such matter of thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
  
5. Notwithstanding anything contained above –
  - i) Our liabilities under this guarantee shall not exceed INR ----- .
  - ii) This Bank Guarantee is valid up to -----.
  - iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if (BREDA) serve upon us a written claim or demand on or before ----- .

In witness whereof We \_\_\_\_\_ Bank Limited have executed this on this the \_\_\_\_\_ day of  
 .....

Signature \_\_\_\_\_

Seal of the Bank

Name \_\_\_\_\_

Designation \_\_\_\_\_

**Format 6**

**FORMAT OF FINANCIAL ELIGIBILITY**  
**(To be submitted on the letterhead of Bidding Company)**

To,  
The Director  
Bihar Renewable Energy Development Agency  
2<sup>nd</sup> Floor, "Vidyut Bhawan-II", Bailey Road,  
Patna – 800001. Bihar

Sub: Bid for "**Request for Proposal for Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp & Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar**" in response to the NCB No:

Dear Sir,

We certify that the Financially Evaluated Entity (ies) had an Annual Turnover as follows:  
The Minimum Average Annual turnover of Rupees .....Crore as computed for best 3 financial years out of last 5 financial year preceding the Bid Deadline subject to the condition

Net worth of Rs.....Crore, at the close of the preceding financial year.

**Financial eligibility criteria**

Name of Bidding Company/JV Members	Financial year	Year of Incorporation of the Bidding company	Av. Annual Turnover (Rs. Crore) (As per audited balance sheets)	Net worth (in Rs. Crore) (As per latest Audited Accounts)

Yours faithfully

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company.

Name: .....

Date: .....

Place: .....

(Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of Bidding Company.

Name: .....

Date: .....

Place: .....

**Notes:**

Audited consolidated annual accounts of the Bidder may also be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

**Format 7**

**Certificate of the Chartered Accountant Firm  
(On the Letter Head of the Firm)**

We certify that the Bidder Company/Firm had an average annual Turnover of INR ..... based on the Annual Statement of Accounts of the three preceding completed Financial Years, calculated in the manner as provided in Format 6.

We also certify that the Bidder Company/Firm had a Net Worth of INR ..... at the end of the preceding completed Financial Year based on the Annual Statement of Accounts for that year , calculated in the manner as provided in Format 6.

Seal of Bidder Company

Signature \_\_\_\_\_

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

Designation \_\_\_\_\_

Name of the Chartered Accountant Firm \_\_\_\_\_

Registration Number \_\_\_\_\_

Date \_\_\_\_\_



**Format 8**

**UNDERTAKING TOWARDS NOT BEING BLACK-LISTED  
(On the Letter Head of the Firm)**

I, \_\_\_\_\_ Authorized Signatory of M/s \_\_\_\_\_ hereby give undertaking that we, as a company are not black-listed by any Central/ State Government/ Semi-Government Organization/ Public Sector Undertaking/ Private Institution in India.

Further, if information furnished above stands false at any stage, we shall be completely liable for actions taken by BREDA as per terms & conditions of the tender including disqualification and exclusion from future contracts/assignments.

(Signature of Authorized Signatory)

Name:

Designation:

Seal:

**Format 9**

**Current Contract Commitments / Works In Progress  
(On the Letter Head of the Firm)**

<b>Name of the Contract</b>	<b>Owner's Name</b>	<b>Value of Outstanding Work in INR</b>	<b>Expected Completion Date</b>
1	2	3	4
1.			
2.			
3.			
4.			
5.			

Seal of Bidder Company

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Date \_\_\_\_\_

**Bihar Renewable Energy Development Agency**

**PRICE BID SHEET**

<b>NCB No:</b>	<b>BREDA/TENDER/SPV/OffGrid/05/2018-19</b>
<b>Name of Work for</b>	<b>Design, Supply, Installation, Testing &amp; Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 10kWp and 11kWp &amp; Above Off Grid Rooftop Solar Power Plants at anywhere in Bihar.</b>
<b>Earnest Money (in Rs.)</b>	<b>INR 2,00,000.00</b>
<b>Cost of Tender (in Rs.) (Non Refundable)</b>	<b>INR 10000 /-</b>

**FINANCIAL BID FORM**

**TO BE FILLED BY BIDDER**

<b>Name of the Contractor</b>								
<b>Address of the Contractor</b>								
<b>Description of System offered</b>	<b>Category A (1 kWp - 10 kWp)</b>				<b>Category B (11 kWp &amp; Above)</b>			
	Price per Watt peak(Rs/Wp)	Tax Rate (%)	Tax	Total Amount	Price per Watt peak(Rs/Wp)	Tax Rate (%)	Tax	Total Amount
Lump sum price should be fixed and firm covering the scope of work and inclusive of all taxes, levis, all types of transportation (source to destination), duties insurance coverage at all stages as specified under the description herein (IN INR) for Design, Supply, Installation, Testing & Commissioning with Comprehensive Maintenance (for 5 year) with remote monitoring for cumulative 500 kWp capacity including Category size from 1kWp to 100 kWp Off Grid Rooftop Solar Power Plants at anywhere in Bihar.								
(Please mention the price in words as well as in figure. If any ambiguity arises price mentioned in words will be final and acceptable.)								

If there are any changes in tax between the time of bidding and supply of material, the effect of such changes shall be borne by BREDA. i.e. any extra shall be paid on submission of documentary evidence & reduction in tax would accordingly be recovered from bill.

