



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

Expression of Interest (EOI)

For

Empanelment for Rate Contract for Design, Supply, Distribution and Comprehensive Maintenance (for 5 years) of Solar High Mast Lighting System at all primary health centre in the state of Bihar.

EoI No: BREDA/EOI/SPV/Off-grid/RC_SHMLS/22/2017-18

Bihar Renewable Energy Development Agency
(A Govt. Agency under Energy Department)
3rd Floor, "Sone Bhawan", Birchand Patel Marg,
Patna – 800001. Bihar State, India.
Tel: 0612-2507734 Fax: 0612-2506572
Toll Free No: 18003456204
Website: www.breda.bih.nic.in

NOTICE INVITING EXPRESSIONS OF INTEREST (EoI) FOR EMPANELMENT

Bihar Renewable Energy Development Agency, a Government Agency under Energy Department of Bihar Government (hereinafter called "BREDA") invites Bids through Expression of Interest (EoI) from the Bidders fulfilling the Eligibility Criteria specified hereunder for **Rate Contract for Design, Supply, Distribution and Comprehensive Maintenance (for 5 years) of Solar High Mast Lighting System at all primary health centre in the state of Bihar.** The Bidder should meet the following Eligibility Criteria in order to be eligible for participating in this EoI:

S.N	Part –A -- Minimum Eligibility Condition	Documents attached (Y/N)	Page No.
1	Bidder should be Registered Company in India under Companies Act 1956/2013. Manufacturing Company in India of SPV Cells / Modules OR Battery OR PV System Electronics (Conforming to relevant National / International Standard) OR A PV System Integrator (At least 2000 Solar PV Lighting Systems should have been installed/ Commissioned) or at least one solar PV plant (s) aggregating to a total of 20 KWp capacity should have been installed/ commissioned.		
2	Bidder should have valid test certificate of complete SOLAR HIGH MAST LIGHT or individual component (Solar Modules, Battery, Luminaries) for which he is participating from MNRE/NABL accredited or approved test labs on or after April 2017.		
3	Cumulative Experience of the Bidder in executing contracts of Solar PV Systems/ Power Plants (Installed & Commissioned) should be at least INR 60 Lakhs.		
4	Overall Average Annual Turnover of the Bidder in the Last 3 Financial Year should be at least INR 75 Lakhs. (This must be the individual Company's turnover and not that of any group of companies) (A summarized sheet of turnover certified by Registered CA should be compulsorily enclosed).		
5	Bidder should have positive (+ve) Net worth. at the close of the preceding financial year		
6	Bidder should have valid GST registration certificate		
7	Bidder 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.		

S.N	PART B: Other Eligibility Criteria	Marks	Document Attached (Y/N)	Page No.
1	The bidder should be: A PV System Integrator. (At least 2000 Solar Photovoltaic Lighting Systems should have been installed / commissioned A Registered Manufacturing Company in India of: SPV Cells / Modules Or Battery Or PV System Electronics (Conforming to relevant National / International Standards)	5 10		
2	Cumulative Experience of the Bidder in executing contracts of Solar Photovoltaic Systems/ Power Plant (Installation & Commissioning of PV Systems/ Power Plants) >100 KWp >250KWP	5 10		

3	Bidder's cumulative experience in last 05 years in supply and installation/ commissioning of total number of Solar PV Lighting Systems Cumulative nos > 3,000 nos. > 5,000 nos.	5 10		
4	Value of a “ Single Order ” of PV Systems / Power Plants executed by the Bidder : Valued more than Rs. 25 Lakhs Valued more than Rs. 50 Lakhs	5 10		
5	Cumulative Experience of the Bidder in executing contracts (Installed & commissioned) of Stand Alone Solar P V Systems /Power Plants: Valued more than Rs. 1.20 Crore Valued more than Rs. 1.80 Crore	5 10		
6	Bidder has Test Certificate for Solar Lanterns, Solar Home lighting System, Solar Street Lighting System, Solar Water Pumping System or SPV Modules, battery, Electronics etc from a MNRE Authorized testing center. (Test Certificate should have been issued on or after 31 st march 2017.) Certificate for any two of the above Certificate for more than two of the above	5 10		
7	The bidder is a SPV Modules Manufacturing Company, Registered in India , with a min. Capacity of --- 5 MWp per annum --- 10 MWp per annum	5 10		
8	The bidder is a SPV cells Manufacturing Company, Registered in India, with a min. Capacity of --- 5 MWp per annum --- 10 MWp per annum	5 10		
9	The bidder has ISO 9001 certification	10		
10	The bidder has ISO 14001 certification	10		

❖ The “Financial bids” of only those bidders shall be opened, who qualify in “Minimum Eligibility Conditions” and **score at least 60 Points** in “technical evaluation”.

Bid Information

Sl. No.	Activity	Duration
1.	Online Sale/Download date of Tender documents	From 15/01/2018 (10:00 Hrs.) to 05/02/2018 (18:00 Hrs) (Bihar Renewable Energy Development Agency”, 3 rd Floor, “Sone Bhawan”, Birchand Patel Marg, Patna – 800001.)
2	Cost of Bidding Document (submission of cost of bidding document is mandatory for all bidders, No exemption for SSI/NSIC registered agency)	Non-refundable INR 10000.00 to be paid through (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). 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.	Pre-bid conference	23/01/2018 at 11.00 Hrs. (Bihar Renewable Energy Development Agency”, 3 rd Floor, “Sone Bhawan”, Birchand Patel Marg, Patna – 800001.)
4.	Date/Time for submission/ uploading of offer/Bid	06/02/2018 up to 16:00 Hrs. (www.eproc.bihar.gov.in)
5.	Submission of Tender fee , EMD and tender document with relevant test report	08/02/2018 at 16:00 Hrs (Demand Draft (DD)) in favour of Bihar Renewable Energy Development Agency" payable at

	and certificate in Hard Copy/Original	Patna. (Bank details: - A/c No. - 50091813870, Allahabad Bank, Patna Main Branch, IFSC CODE: -ALLA0210003).
6.	Date & time for opening of Technical Bid	09/02/2018 at 15:30 Hrs. (www.eproc.bihar.gov.in)
7.	Validity of Bid	180 days from the date of opening of Financial Bid.
8.	Bid Security (EMD) (submission of EMD is mandatory for all bidders, exemption for SSI/NSIC registered agency as per GoI rules and regulation)	INR 1,50,000.00 (INR One Lakh Fifty Thousand only) in form of a DD from any Nationalized /Scheduled Commercial Bank.
9	Date time and place of opening of Financial Bid	To be informed later to technically qualified bidder. (www.eproc.bihar.gov.in)

1. **Bidders are required to submit the documentary proof for the qualifications mention above.**
2. Notwithstanding anything stated above, BREDA reserves the right to assess the capabilities and capacity of the Bidder to perform the Contract should the circumstances warrant such assessment in the overall interest of BREDA.
3. Consortium, Joint Venture/Business partnership is allowed.
4. **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 in a forth 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 Expression of Interest (EoI). The Envelop IV should be sealed and marked with EoI Number and should be subscribed on the envelop as Empanelment for Rate Contract for Design, Supply, Distribution and Comprehensive Maintenance (for 5 years) of Solar High Mast Lighting System at all primary health centre in the state of Bihar. However each envelops should be duly sealed and stamped with EOI no. and respective Envelop number. Document not found in required fashion will not be acceptable.**
5. The EOI document containing the project profile, invitation for qualification and criteria for evaluation may be obtained from the website: www.eproc.bihar.gov.in.
6. 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.
7. Detailed NIT/EOI can be seen of website- www.breda.bih.nic.in or www.eproc.bihar.gov.in.
8. For participating in e-tendering process, the contractor shall have to get them registered to get used ID, Password and digital signature. This will enable them to access the website 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.
9. BREDA will not be responsible, in case of any delay, due to any reason whatsoever, in receipt of Bid Documents by the Bidders.
10. The BREDA reserves the right to reject any or all Bids or cancel/withdraw the Expression of Interest (EoI) without assigning any reason whatsoever and in such case, no Bidder/ intending Bidder shall have any claim arising out of such action.
11. BREDA, Patna intends to undertake a competitive bidding process in order to shortlist and qualify suitable Bidders, who shall be eligible for evaluation of their price bids towards selection of the successful bidder in terms of the EoI for award of the project.
12. The successful Bidder, at the end of the bidding process, shall be awarded the contract by BREDA, Patna 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, Patna. Further, the contractor shall be responsible for remedying all defects and deficiencies, expected during the defects liability period in terms of the EPC contract.
13. The detail of the bidding process and summary of the scope of construction works for the project is included in the EoI document.
14. **Essential Requirement**
 - In the unlikely event of the server for 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) 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.
- 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.

Eols are to be submitted in hard copy along with required documents and with latest MNRE technical specification test certificate approved by MNRE/NABL accredited or approved test lab **High Mast Lighting System or individual component (Solar Modules, Battery, Luminaries) at the following address:**

**Bihar Renewable Energy Development Agency
(A Govt. Agency under Energy Department)
3rd Floor, "Sone Bhawan", Birchand Patel Marg,
Patna – 800001. Bihar State, India.**

Tel: 0612-2507734 Fax: 0612-2506572, Website: www.breda.bih.nic.in

Toll Free No: 18003456204

Organizations are requested to submit realistic and achievable numbers in this regard since lack of achievement at the end of the period may result in the companies being not selected for the future periods of the empanelment. The Eols will be evaluated by the **BREDA Management Committee** for approval and selection.

**Deputy Director,
BREDA, Patna**

SECTION - 1 INSTRUCTIONS TO BIDDERS

1.1 Scope of Work

Rate Contract for Design, Supply, Distribution and Comprehensive Maintenance (for 5 years) of Solar High Mast Lighting System at all primary health centre in the state of Bihar. All the expenditure to be incurred for the Comprehensive Maintenance Contract (including Regular Operation and Maintenance (O&M) of the 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 system.
- b. The 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. The overall cost for the inspection will be borne by Bidder. 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 director in this regard will be final and binding on the bidder.

1.2 Cost of Bidding

- 1.2.1 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.

1.3 Clarifications and Amendments

- 1.3.1 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.
- 1.3.2 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.
- 1.3.3 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.

1.4 Language of Bid

- 1.4.1 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.

1.5 Period of Validity of Bids

- 1.5.1 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.
- 1.5.2 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.

1.6 Bid Security

- 1.6.1 The Bidder shall furnish, a Bid Security in a separate sealed envelope in the amount and currency as stipulated in the Expression of Interest (EoI).
- 1.6.2 The Bid Security shall be in the form of a DD from any Nationalized/Scheduled Commercial Bank.
- 1.6.3 Any Bid not accompanied by prescribed Bid Security shall be rejected by BREDA as non-responsive.
- 1.6.4 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.
- 1.6.5 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.
- 1.6.6 No interest will be paid for any type of money kept with BREDA.

1.7 Deviations to Commercial Conditions

- 1.7.1 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.

1.8 Basis of Price

The price quoted should include all taxes and duties, custom duty, GST, local taxes, Income Tax, Surcharge on income tax etc. if any. A supplier/ contractor shall be entirely responsible for all taxes, duties, license fees, etc. All taxes payable as per Government income tax & service 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/equipments 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.

PRICE FALL CLAUSE:

(i) The prices charged for the systems supplied under the Contract by the Contractor shall in no event exceed the lowest price at which the Contractor sells the Systems or offer to sell systems of identical description to any Department of the Central Government or any Department of a State Government or any statutory undertaking of the Central or a State Government, as the case may be, during the period till all Orders placed during the currency of Contract is completed.

(ii) If at any time during the said period, the Contractor reduces the Sale price, sells or offers to sell such systems irrespective of quantity to any person(s)/organization(s) including the Purchaser or any Statutory Undertaking of the Central or a State Government, as the case may be, at a price lower than the price chargeable under this Contract, he shall forthwith notify such reduction or Sale or offer of Sale to the Director, BREDA and the price payable under the Contract for the systems supplied after the date of coming into force of such reduction or sale or offer of sale stand correspondingly reduced. The above stipulation will, however, not apply to: (a) Export/deemed Export by the Contractor (b) Sale/ normal replacement.

(iii) The Contractor shall furnish the following certificate to the Paying Authority along with each bill for payment for supplies made against the Contract.

“I/We certify that there has been no reduction in sale price of the Systems of Description identical to the Systems supplied to the Government under the contract herein and such Systems have not been offered/sold by me/us to any person(s)/organization(s) including the purchaser or any Department of Central Government or any Department of a State Government or any statutory Undertaking of the Central or State Government as the case may be up to the date of the bill/the date of completion of supplies against all orders placed during the currency of the Contract at a price lower than the price charged to the Government under the Contract except for quantity of Systems as mentioned at para (ii) above.

NOTE: The Contractor will also inform the Paying Authority/ Director, BREDA as soon as the supply against the said contract is completed.

Note: The bidder is required to submit a quarterly report along with a consolidated 12 months report of the system with a copy of the service log book as mentioned in **Clause 3.5(ii)** along with the invoice for O&M.

1.9 Signing, Sealing and Submission of Bids

1.9.1 BID shall be submitted at BREDA office in hard copy with complete signed documents and requisites such as MNRE certificate, test certificates etc.

1.9.2 **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 in a forth 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 Expression of Interest (EOI). The Envelop IV should be sealed and marked with EoI Number and should be subscribed on the envelop as Empanelment for **Rate Contract for Design, Supply, Distribution and Comprehensive Maintenance (for 5 years) of Solar High Mast Lighting System at all primary health centre in the state of Bihar.** However each envelops should be duly sealed and stamped with EOI no. and respective Envelop number. Document not found in required fashion will not be acceptable.**

1.9.3 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 Bid Opening

- 1.10.1 The Financial Price Bids of those Bidders whose Bids have been found to be substantially responsive 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.
- 1.10.2 The BREDA will open the Financial Bids at the time, on the date and at the place specified in the Expression of Interest (EoI) through e-tendering mode only at (www.eproc.bihar.gov.in)

1.11 BREDA's Right to Accept any Bid, and to Reject any or all Bids

- 1.11.1 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.

1.12 Award of Contract

- 1.12.1 BREDA shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid and is substantially responsive to the Bidding Document.
- 1.12.2 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)
- 1.12.3 **Lowest bidder (L1) will be declared as the successful bidder and will be award minimum 30 % of work order.** For further allocation, the eligible firms will be asked to give their consent through email to match the lowest rates for allocation of work. The bidder who matches the L1 price will also be declared Successful bidder.
- 1.12.4 All the qualified bidders except the L1 bidder shall give their consent through e-mail to execute the work at L1 price failing which it will be assumed that they are not interested to match L1 price. In case of more than one such response is received expressing their consent to match the L1 price and to execute the capacity in the State then the preference shall be given in the ascending order of the bid quoted by the bidders i.e. first preference will be given to L2 then L3 and so on, including L1 maximum 3 (Three) number of bidders will be selected.
- 1.12.5 BREDA reserves the right to vary the quantity of any of the Equipment/Spares and/or delete any item of Equipment/Spares or complete system altogether at the time of Award of Contract.
- 1.12.6 BREDA shall issue Notification of Award of the Contract to the Successful Bidder with a copy thereof and the Successful Bidder shall return the copy duly accepted and signed by the authorized person on behalf of the Successful Bidder clearly indicating the date of signing, the name and designation of the signatory within such period as specified in the Notification of Award.
- 1.12.7 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.

1.13 Signing of Contract

- 1.13.1 As soon as possible after the issue of Notification of Award to the Contractor by BREDA, BREDA shall send to the Successful Bidder the Contract Agreement provided in the Bidding Document.
- 1.13.2 Within seven (7) days of receipt of the Contract Agreement, the Successful Bidder shall sign and date the Contract Agreement and return it to BREDA.

1.14 Effective Date of Contract

- 1.14.1 The Contract shall become effective from the date of issue of Notification of Award (NOA) to the Successful Bidder.

1.15 Completion Time Schedule

- 1.15.1 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).

1.15.2 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 of the Contract Price unless the time extension is allowed by Director, BREDA.* Once the maximum is reached, BREDA may consider termination of the contract.

1.15.3 **The SLA (service level agreement)** must be signed by the bidder at the time of submission of the bid. In Service level agreement bidder will give Name and full contact detail in case of any complains along with response time. It should be followed by a hierarchy mentioning contact detail of superior/other person with response time if level one person does not response within given time. This hierarchy at least contains three levels with response time of every level *A penalty of INR 500/- per day per item will be imposed on bidder after 7 days from the day it was informed about the defect/rectification till the same is rectified for Solar High Mast Lightings.*

1.16 Contract Performance Guarantee

1.16.1 The Bidder shall furnish Contract Performance Guarantee for the 10% of the contract amount and in the form as specified in the General Conditions of Contract

SECTION – 2

BIDS EVALUATION PROCEDURE

2.1 Evaluation of Financial 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 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 may 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) Overall completeness and compliance with the Technical Specifications, suitability of the facilities offered in relation to the environmental and climatic conditions prevailing at the site; and quality, function and operation of any process control concept included in the Bid. The Bid that does not meet acceptable standards of completeness, consistency and details will be rejected for non-responsiveness
 - (b) Any other relevant factors, if any, that the BREDA deems necessary or prudent to take into consideration.
 - (c) 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 Expression of Interest (EoI) issued by BREDA.
- (c) **"Owner" Means BREDA**
- (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) Notification of Award till the execution of Contract Agreement between BREDA and the Contractor
 - (ii) The Contract Agreement between BREDA and the Contractor and the attachments thereto.
 - (iii) Minutes of negotiations if any signed between BREDA and Successful Bidder prior to signing of the Contract Agreement
 - (iv) General Conditions of Contract
 - (v) Technical Specifications
 - (vi) Instructions to Bidders
 - (vii) Designs and Drawings
 - (viii) Bid submitted by the Successful BidderIf 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) "Company" shall mean a company as defined under the Companies Act, 1956 including amendment thereto as in force ;
- (h) "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
- (i) "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.
- (j) "EPC" means Engineering, Procurement and Construction
- (k) "Government" means Government of India and /or Bihar Government and includes its departments, bodies, agencies, authorities etc.
- (l) "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.
- (m) "Latent Defect" means the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period and cannot be detected

by reasonable examination during inspection and testing by the BREDA/Owner during the Defect Liability Period.

- (n) “Notification of Award” means notification in writing issued by BREDA to the Successful Bidder that its Bid has been accepted
- (o) “Party” means the BREDA or the Contractor, as the context requires, and “Parties” means both of them
- (p) “Person” means any individual, corporation, partnership, joint stock company, body corporate, trust, unincorporated organization, joint venture, government or political subdivision or agency thereof
- (q) “Plant” means design, supply, installation commissioning, distribution and comprehensive maintenance (for 5 years) at all primary health centre in the state of Bihar for Solar High Mast Lighting System.
- (r) “Site” or “location”, means all primary health centres over Bihar.
- (s) “Written” or “In Writing” means handwritten, typewritten, printed or electronically made, and resulting in a permanent record
- (t) “Works” shall mean 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 of Contract Price including CMC

- 3.4.1 Forty (40) percent of the Contract Price on inspection at warehouse located in Bihar as specified in the Bidding Documents within thirty (30) days on receipt of invoice with beneficiary/site details, material dispatch clearance certificate, Module test certificate IEC61215, IEC61730-1,2. Test certificate of mentioned solar High Mast Lighting system or individual component (Solar Modules, Battery, Luminaries) approved by **MNRE/NABL accredited or approved test lab** (mandatory), Steel tower/ pole thickness certificate/undertaking, 150kmph Wind load bearing capacity test certificate/undertaking, LM 80 test reports and certificates, IP 65 certificates, Luminous efficacy certificate and certificate of transit insurance (original + two copies)
- 3.4.2 Fifty (50) percent on completion of handover of the System and Equipment to the complete satisfaction of BREDA and after successful completion in accordance with the provisions of the Technical Specifications and as approved by BREDA within thirty days of receipt of invoice (original + two copies) along with the supporting documents of completion of Works and Performance and Guarantee Tests Reports.

The bidder is also required to submit a consolidated data sheet stating the details as mentioned below:

Sr. No.	District	Name of the beneficiary	Beneficiary Bank Account Detail	Beneficiary Aadhar No. (copy of Aadhar to be attached)	Address with contact no.(Address proof to be attached)	Serial No. of the Solar High Mast Lighting System	Serial No. of the Modules	Photograph of the beneficiary & Signature

3.4.3 Balance 10% of the contract price shall be paid in 5 yearly instalments (2% per year) towards Comprehensive maintenance (which shall include regular Operation and Maintenance) against submission of 5 (five) BG's (each of 2% amount of work order value) for 12, 24, 36, 48 & 60 months validity respectively after successful commissioning of the high mast lighting system. These BGs under this clause shall be refunded on expiry of respective defect liability period every year.

3.5 Supply, Erection, Testing, Commissioning& Inspection of Plant/Equipment

3.5.1 Service Centre should be mandatorily be opened in each commissionerary with minimum two trained technician and sufficient numbers of critical components should be present there. The details of the service Centre with contact no. need to be submit before claiming the payment.

3.5.2 Material shall be strictly as per DNIT specifications. If there is any left out specification, the same shall be considered as per the MNRE specification/applicable latest BIS/International Standards.

3.5.3 It shall be the sole responsibility of the contractor to get verified the quality & quantity of the supplied material at the site of delivery.

3.5.4 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.

3.5.5 BREDA, may by written notice sent to the supplier, terminate the contract, in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the purchaser's convenience in the interest of BREDA.

3.5.6 Any material /instrument required for completing /successful running of the project which is not mentioned in the DNIT will be provided by the bidder in the approved rates only and no additional payment shall be made.

3.5.7 The service centres 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	Serial no. of equipment	Serial No. of SPV modules	Date of complaint redressal	Issue at Site	Remarks of service centre with date & Signature	Remarks of beneficiary with date & Signature

3.5.8 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.

3.6 Contract Performance Guarantee (CPG)

- 3.6.1 The Contractor shall provide to BREDA within 14 (fourteen) days of issue of Work Order, the Contract Performance Guarantee in the form of an 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 Bank/scheduled commercial bank in the form specified in the Bidding Documents.
- 3.6.2 The period of validity of the Contract Performance Guarantee shall be 18 months and CPG payment may be released against submission of 5 (five) BG's each of 2% amount of work order value for 12, 24, 36, 48 & 60 months respectively after one year of the successful commissioning of the high mast lighting system.
- 3.6.3 If the Contractor fails to fulfil obligations under the Contract, the proceeds of Contract Performance Guarantee/Security shall be appropriated by BREDA as part compensation for any loss resulting from Contractor's failure to perform and fulfil 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.
- 3.6.4 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

3.7 Final Acceptance

Upon successful completion of the work order by the Contractor, BREDA shall issue to the Contractor a 'Final Acceptance Certificate'. Such certificate shall not relieve the Contractor of any of its obligations which otherwise survive by the terms and Conditions of the Contract after issuance of such certificate.

3.8 Defect Liability Period

- 3.8.1 The Contractor warrants that the Plant or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant supplied and of the work executed.
- 3.8.2 The Defect Liability Period shall be Eighteen (18) months from the date of satisfactory installation and performance of the system. If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Plant supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with BREDA regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good as BREDA shall determine at its discretion, such defect as well as any damage to the Plant caused by such defect.

3.9 Warrantees and Guarantees

- 3.9.1 The Contractor shall warrant as per standard for quality that anything to be furnished under this contract shall be are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. The Contractor shall provide warrantee covering the rectification of any and all defects in the design of System and Equipment, materials 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. The Warrantees and Guarantees aforesaid will not include the latent defects in the Plant and Equipment.
- 3.9.2 Performance of Equipment: In addition to the warranty as already provided, the supplier shall guarantee satisfactory performance of the equipment and shall be responsible for the period or up to the date specified in sub-clause (c) hereof after the equipment has been accepted by the "BREDA" to the extent for any defects that may develop such defects shall be removed at his own cost when called upon to do so by the "BREDA"
- 3.9.3 The Warranty period shall be **25 Years for the PV modules and 5 years for complete system including battery** from the date of commissioning and handing over of the system. The contractor shall rectify defects developed in the system within Warranty period promptly. In case the defects are not rectified within a week of the receipt of the complaint by the contractor BREDA shall have full liberty

to restore the system in working condition. The expenditure so incurred by BREDA shall be deducted from the contractor pending claims, security deposit or in other law full manner.

3.10 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 / contract as 3 month (i.e.60 days to supply complete material at site as per work order & total 30 days to complete installation of the project) 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.

A penalty of INR 500/- per day per item will be imposed on bidder after 7 days from the day it was informed about the defect / rectification till the same is rectified for solar High Mast Lighting Systems.

List of bidders (to be called project developer here in after) shall be subjected to continuous review of performance. Following will result in automatic debarment / blacklisting as the case may be.

- (i) Non-performance with regard to quality and supply schedule based on objective criteria**
- (ii) Attempt to bribe a BREDA official**
- (iii) Found engaging in corrupt or fraudulent practices**
- (iv) Failure of materials / equipment's supplied in more than one contract.**
- (v) Established misbehaviour and threatening officials of the BREDA**
- (vi) Black listing by other state, central utilities or other government entities.**

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

3.11 Force Majeure

- 3.11.1 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 fulfil its obligation under this Contract due to force majeure conditions.
- 3.11.2 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.
- 3.11.3 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.

3.12 Termination of Contract

- 3.12.1 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.
- 3.12.2 In the event of such termination, the Contractor shall be eligible for compensation, equitable and reasonable, dictated by the circumstances prevalent at the time of termination. In such cases, the BREDA's decision shall be final and binding on the Contractor subject to arbitration as provided for in the Contract.

3.13 Transfer of Ownership

- 3.13.1 The Ownership of the Plant and Equipment shall be transferred to the Owner when the Plant and Equipment are brought on to the Site.

3.13.2 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.

3.14 Arbitration and Jurisdiction

3.14.1 Any dispute between the BREDA / 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.

3.14.2 Any disputes arising shall be subject to the jurisdiction of the High Court of Patna.

SECTION - 4

TECHNICAL SPECIFICATIONS
SOLAR HIGH MAST LIGHTING SYSTEM

A standalone Solar High Mast Lighting system (SHMLS) is an outdoor lighting unit used for illuminating a street or an open area. The Solar High Mast Lighting System consists of solar photovoltaic (SPV) module, a luminaire, storage battery, control electronics, inter-connecting wires/cables, module mounting Steel tower/ pole including hardware and battery box. The luminaire is based on White Light Emitting Diode (W-LED), a solid state device which emits light when electric current passes through it. The luminaire is mounted on the Steel tower/ pole at a suitable angle to maximize illumination on the ground. The PV module is placed at the top of the Steel tower/ pole at an angle facing south so that it receives solar radiation throughout the day, without any shadow falling on it. A battery is placed in a box attached to the Steel tower/ pole.

Electricity generated by the PV module charges the battery during the day time which powers the luminaire from dusk to dawn. The system lights at dusk and switches off at dawn automatically.

Technical specification of White-LED (W-LED) Based Solar High Mast Lighting Systems:

1. SOLAR HIGH MAST LIGHTING SYSTEM :

PV Module	Minimum 225 Wp under STC
Battery	Lead acid tubular flooded or Tubular GEL /VRLA ,12V- 225AH @ C/10
Light Source	4nos.x10Watt-White Light Emitting Diode (W-LED)
Luminous Efficacy	At least 80Lumen/watt
LED Illumination	Street lamp should have illumination not less than 0.5 Lux/Watt perpendiculars from the height of 9 m. The illumination should be uniform without dark rashes on the ground.
Color Rendering Index (CRI)	CRI of Individual WLED must not be less than 70 and the color temperature must be in the range of (5500-6500)°K
Mounting of light	Minimum 9 metre Steel tower/ pole mounted
Electronics Efficiency	Minimum 85% total
Duty Cycle	Dusk to dawn
Autonomy	3 days or Minimum 42 operating hours per permissible Discharge

WHITE-LED (W-LED) BASED SOLAR HIGH MAST LIGHTING SYSTEM

A standalone solar high mast lighting system (SHMLS) is an outdoor lighting unit used for illuminating a street or an open area. The Solar High Mast lighting System consists of solar photovoltaic (SPV) module, a luminaire, storage battery, control electronics, inter-connecting wires/cables, module mounting Steel tower/ pole including hardware and battery box. The luminaire is based on White Light Emitting Diode (W-LED), a solid state device which emits light when electric current passes through it. The luminaire is mounted on the Steel tower/ pole at a suitable angle to maximize illumination on the ground. The PV module is placed at the top of the Steel tower/ pole at an angle facing south so that it receives solar radiation throughout the day, without any shadow falling on it. A battery is placed in a box attached to the Steel tower/ pole.

Electricity generated by the PV module charges the battery during the day time which powers the luminaire from dusk to dawn. The system lights at dusk and switches off at dawn automatically.

TECHNICAL DETAILS

PV MODULE

- i. Indigenously manufactured PV module should be used.
- ii. The PV module should have crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.
- iii. The power output of the module(s) under STC should be a minimum of 225Wp (e.g. 75Wp x 3nos.) at a load voltage* of 16.4 ± 0.2 V.
- iv. The open circuit voltage* of the PV modules under STC should be at least 21.0 Volts.
- v. **The module efficiency should not be less than 12 %.**
- vi. The terminal box on the module should have a provision for opening it for replacing the cable, if required.
- vii. There should be a Name Plate fixed inside the module which will give:
 - a. Name of the Manufacturer or Distinctive Logo.
 - b. Model Number
 - c. Serial Number
 - d. Year of manufacture
- viii. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the tedlar sheet of the module.

*The load voltage and Voc conditions of the PV modules are not applicable for the system having MPPT based charge controller

BATTERY

- i. Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type.
- ii. The battery will have a minimum rating of 12V, 225 Ah at C/10 discharge rate.
- iii. 75 % of the rated capacity of the battery should be between fully charged and load cut off conditions.
- iv. Battery should conform to the latest BIS/ International standards.

LIGHT SOURCE

- i. The light source will be a white LED type.
- ii. The colour temperature of white LED used in the system should be in the range of 5500°K – 6500°K .
- iii. W-LEDs should not emit ultraviolet light.
- iv. The light output from the white LED light source should be constant throughout the duty cycle.
- v. The lamps should be housed in an assembly suitable for outdoor use.
- vi. The temperature of heat sink should not increase more than 20°C above ambient temperature during the dusk to dawn operation.

ELECTRONICS

- i. The total electronic efficiency should be at least 85%.
- ii. Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the year.
- iii. No Load current consumption should be less than 20 mA.

- iv. The PV module itself should be used to sense the ambient light level for switching ON and OFF the lamp.
- v. The PCB containing the electronics should be capable of solder free installation and replacement.
- vi. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.

ELECTRONIC PROTECTIONS

- i. Adequate protection is to be incorporated under “No Load” conditions e.g. when the lamp is removed and the system is switched ON.
- ii. The system should have protection against battery overcharge and deep discharge conditions.
- iii. Fuse should be provided to protect against short circuit conditions.
- iv. Protection for reverse flow of current through the PV module(s) should be provided.
- v. Electronics should have temperature compensation for proper charging of the battery throughout the year.
- vi. Adequate protection should be provided against battery reverse polarity.
- vii. Load reconnect should be provided at 80% of the battery capacity status.

MECHANICAL COMPONENTS

- i. A corrosion resistant metallic frame structure should be fixed on the Steel tower/ pole to hold the SPV module.
- ii. The frame structure should have provision to adjust its angle of inclination to the horizontal, so that it can be installed at the specified tilt angle.
- iii. The Steel tower/ pole should be corrosion resistant.
- iv. The height of the Steel tower/ pole should be minimum 9 metres above the ground level, after grouting and final installation.
- v. As per IS 1239 & BS 1387, The Steel tower/pole should be of telescopic in shape having minimum 125mm diameter (minimum 4 mm thick) of the bottom and minimum 75 mm (minimum 3.2 mm thick) of the top (max. in 3 parts) Capable of bearing whole system weight and capable of withstand 150kmph wind velocity, M25 grade 1:1:2 RCC foundation at least 1 meter deep (single column of 300mm x 300mm x 1300mm).
- vi. The Steel tower/ pole should have the provision to hold the luminaire.
- vii. The lamp housing should be water proof and should be painted with a corrosion resistant paint.
- viii. A vented, acid proof and corrosion resistant metallic box or plastic box [made of Polypropylene Copolymer (PP-CP)] with a locking arrangement for outdoor use should be provided for housing the battery.

INDICATORS

- The system should have two indicators, green and red.
- The green indicator should indicate the charging under progress and should glow only when the charging is taking place. It should stop glowing when the battery is fully charged.
- Red indicator should indicate the battery “Load Cut Off” condition.

QUALITY AND WARRANTY

- i. **The solar high mast lighting system (including the battery) will be warranted for a period of five years from the date of supply.**
- ii. **The PV module(s) will be warranted for a minimum period of 25 years from the date of supply.** The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- iii. The Warranty Card to be supplied with the system must contain the details of the system.

OPERATION and MAINTENANCE MANUAL

An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar High Mast Lighting System. The following minimum details must be provided in the Manual:

- Basic principles of Photovoltaics.
- A small write-up (with a block diagram) on Solar High Mast Lighting System - its components, PV module, battery, electronics and luminaire and expected performance.
- Type, Model number, Voltage & capacity of the battery, used in the system.
- The make, model number, country of origin and technical characteristics (including IESNA LM-80 report) of W-LEDs used in the lighting system.
- About Charging and Significance of indicators.
- Clear instructions about erection of Steel tower/ pole and mounting of PV module (s) and lamp housing assembly on the Steel tower/ pole.
- Clear instructions on regular maintenance and trouble shooting of the Solar High Mast Lighting System.
- DO's and DONT's.
- Name and address of the contact person for repair and maintenance, in case of non-functionality of the solar high mast lighting system.

Note:

1. Each system should have a **BREDA logo** along with a “**Not for Sale**” tag attached to it.
2. Each system should have a unique serial no. engraved on the system such as solar high mast lighting system which should be distinct for each Solar High Mast light. The same should be maintained by the bidder and be submitted at BREDA.

The serial no. for the system should be as follows:

- BREDA/SHMLS/2017-18/XXXXXXX for Solar High Mast lights

FORMATS FOR SUBMITTING EOI & CHECK LIST

Format 1

Check List of Information/Documents Attached

Sr. No.	Particulars of Information/ Document	Format /Annexure Number	Yes/No.
1	This Check List	Format 1	
2	Covering Letter	Format 2	
3	Letter of Authorization/ Power of Attorney	Format 3	
4	Average Annual Turnover and Net Worth (CA certified)	Format 4	
5	Certificate of Chartered Accountant Firm	Format 5	
6	Bidder's Experience	Format 6	
7	Current Contract Commitments/ Work in Progress	Format 7	
8	Project Completion Schedule from the issue of work order (ZERO DATE)	Format 8	
9	Format of Contract Performance Guarantee	Format 9	To be furnished within the period specified in the Bidding Documents after the signing of the Contract
10	Form of Contract Agreement	Format 10	To be signed by BREDA and the Successful Bidder within the period specified in the Bidding Documents after the issue of Notification of Award/LOA
	B. Documents to be attached with the Bid as Annexure in the same order as mentioned below		
1.	Business Profile of Bidder Company (Not more than one page of A4 size)	Annexure 1	
2.	Certificate of Incorporation / Registration of Bidder Company	Annexure 2	
3	Memorandum and Articles of Association	Annexure 3	
4	Attested Copies of Completion Certificates issued by the Owner in respect of the Projects completed as per Format – 7	Annexure 5	
5	Attested copies of the valid Registration Certificates of GST and all other applicable taxes etc.	Annexure 6	
6	Signed and stamped copy of the	Annexure 7	

Sr. No.	Particulars of Information/ Document	Format /Annexure Number	Yes/No.
	Bidding Document including amendments/clarifications, if any, issued by the BREDA.		
7	Undertaking for Bidder should not have been black listed by any Government Department, Organization, Agency, Authority or any Public Sector Undertaking owned by the Government as on the date for Bid submission.	Annexure 8	
8	Test certificates for the system	Annexure 10	

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),
3rd Floor, “Sone Bhawan”,
Birchand Patel Marg,
Patna – 800001 (Bihar)**

Sub: Empanelment for Rate contract for **Supply of Solar _____ System W-LED with maintenance under guarantee for a period of 5(Five) years at all primary health centres in the Bihar.**

EOI No: _____ Dated _____

Sir,

In response to your above referred NCB, we hereby submit our Bid for “Supply of Solar _____ System W-LED and maintenance under guarantee for a period of 5(Five) years 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),
3rd Floor, “Sone Bhawan”,
Birchand Patel Marg,
Patna – 800001 (Bihar)**

EOI 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:

Signature _____
Seal of Bidder Company
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 4

Annual Turnover and Net Worth

A. Average Annual Turnover*

Year	Amount in INR
1.	
2.	
3.	
Average Annual Turnover	

B. Net Worth@

Signature _____
Seal of Bidder Company
Name _____
Designation _____
Date _____

*Annual turnover represents the value of work of the project (s) completed as per the contract between the Owner and the Bidder Company but does not include the value of completed work(s) of the projects in progress/under execution. Other income shall not be considered for arriving at annual turnover

@Net worth means the sum total of the paid up share capital and free reserves. Free reserve means all reserves credited out of the profits and share premium account but does not include reserves credited out of the revaluation of the assets, write back of depreciation provision and amalgamation. Further any debit balance of Profit and Loss account and miscellaneous expenses to the extent not adjusted or written off, if any, shall be reduced from reserves and surplus.

Format 5

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

We certify that the Bidder Company 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 4.

We also certify that the Bidder Company 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 4..

Seal of Bidder Company

Signature _____

Name _____

Designation _____

Name of the Chartered Accountant Firm

Registration Number _____

Date _____

Format 6

Bidder's Experience

Owner Name, contact address/ telephone /fax/Email ID	Name of Agency to which SHMLS supplied	Location	Nos. of unit supplied	LOI/LOA No. and date (to be attached)	Main Parameters	Value of work Rs. Lac	Commissioning date
1	2	3	4	5	6	7	8

Seal of Bidder Company

Signature _____
Name _____
Designation _____
Date _____

Format 7

Current Contract Commitments / Works In Progress

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

Signature _____

Seal of Bidder Company

Name _____

Designation _____

Date _____

Format- 8

Project Completion Schedule

Zero Date (Date of Issue of work order)

S.No.	Milestones Activities	Commencement /Completion (in months from Zero Date

Seal of Bidder Company

Signature _____

Name _____

Designation _____

Date _____

Format 9

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),
3rd Floor, "Sone Bhawan",
Birchand Patel Marg,
Patna – 800001 (Bihar)

Whereas M/s. (hereinafter called the Contractors) have entered into a contract with the Bihar Renewable Energy Development Agency (hereinafter called BREDA), Vide Notification of award no. dated..... of the BREDA, for **Rate contract (for 1 Year) of design, supply, distribution and comprehensive maintenance of Solar High Mast Lighting System (for 5 years) at all primary health centre in the state of 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 a 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 tillBREDA 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

Seal of the Bank

Signature _____

Name _____

Designation _____

Format 10

Form of Contract Agreement

(To be signed by BREDA and the Successful Bidder within the period specified in the Bidding Documents after the issue of Notification of Award)

(To be stamped in accordance with the Stamp Act, of the State)

THIS AGREEMENT made this _____ day of _____ month of the year _____ between Bihar Renewable Energy Development Agency, A company incorporated under the companies act 1956 having its registered office at 3rd Floor, “Sone Bhawan”,Birchand Patel Marg, Patna – 800001 (Bihar) (hereinafter referred to as “BREDA”, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) of the **ONE PART** and M/s _____, having its office at _____ (hereinafter referred to as the “**Contractor**”, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) of the **OTHER PART**.

WHEREAS BREDA, desirous of associating with the Contractor for” **Rate contract (for 1 Year) of design, supply, distribution and comprehensive maintenance of Solar High Mast Lighting System (for 5 years) at all primary health centers in the state of Bihar** “on EPC Basis (the Project) on the terms and conditions contained in the Bidding Documents and amendments of the clarifications in respect there of issued by BREDA in response to Expression of Interest (EoI) dated _____.

AND WHEREAS the Contractor had submitted its Bid for the said Project under its Covering Letter No. _____ dated _____ and the clarifications/confirmations given under cover of its subsequent letters bearing numbers, _____, _____ and _____ dated _____, and _____ respectively (all put together are hereinafter referred to as the “Bid”).

AND WHEREAS BREDA has accepted the Bid, as conveyed to the Contractor vide Notification of Award No. _____ dated _____ (hereinafter referred to as the “Notification of Award”), on the terms and conditions brought out in the said Notification of Award and the Documents referred to therein, resulting into a Contract.

AND WHEREAS the Contractor has accepted the Notification of Award, as conveyed to BREDA vide Letter No. _____ dated _____ (hereinafter referred to as the “Letter of Acceptance”), resulting into this Contract.

NOW THEREFORE THIS AGREEMENT WITNESSETH AS UNDER:

Article -1.0 - Definition

In this Agreement the words and expressions shall have the same meaning as are respectively assigned to them in the Contract Documents specified hereunder attached herewith which form an integral part of this Contract Agreement. This Agreement together with all the Documents attached therewith is referred to as the Contract for all intent and purposes of the aforesaid Project.

Article - 2.0 - Date of commencement of Contract

This Contract has come into force with effect from _____ i.e. from the date of the Notification of Award.

Article - 3.0 - Contract Documents

The Contract shall be performed strictly as per the terms and conditions stipulated herein and in the following

documents attached hereto (hereinafter referred to as Contract Documents:

- (i) Notification of Award till the execution of Contract Agreement between BREDA and the Contractor – (Appendix I)
- (ii) The Contract Agreement between BREDA and the Contractor and the attachments thereto. (This Contract Agreement)
- (iii) Minutes of negotiations if any signed between BREDA and Successful Bidder prior to signing of the Contract Agreement (Appendix II)
- (iv) General Conditions of Contract (Appendix III)
- (v) Technical Specifications (Appendix IV)
- (vi) Instructions to Bidders (Appendix V)
- (vii) Designs and Drawings (Appendix VI)
- (viii) Bid submitted by the Successful Bidder .

The above Contract Documents shall form an integral part of this Agreement. 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.

Subject to the provisions relating to Arbitration specified in Section 4 – General Conditions of Contract of the Contract Document, in case of any conflict amongst Contract Documents, the decision of the BREDA shall be final & binding on the Contractor

Article - 4.0 - Scope of Work

The detailed scope of work of the Contractor, under the Contract, has been brought out in the Contract Documents. However, the above scope of work of the Contractor shall also include such items of work as may not have been specifically brought out in the said Contract Documents but as may be necessary for the safe and successful completion of the various items of work, envisaged, as per good engineering practice and recognized principles.

Article - 5.0 - Contract Price

The total Contract Price under the Contract shall be Rs. _____ (Rupees _____ only) inclusive of all the taxes, duties, levies, fees etc. as specified in Section 4 – General Conditions of Contract and the Price Bid Schedules forming part of this Contract. The price shall remain fixed and firm and shall not change on any account whatsoever, for the duration of the Contract. All the matters relating to the payments to the Contractor shall be as per the Terms and Conditions and subject to the requirements as specified in the said General Conditions of Contract.

Article - 6.0 - Contract Schedule

Time is the essence of Contract and shall be strictly adhered to. The Contractor shall so organize its resources and perform its work as to complete it within a period of _____ months from the date of Notification of Award and as per the Projects Completion Schedule (Appendix VIII) forming part of the Bid submitted by the Contractor subject to further modifications/ changes as may be mutually agreed to between BREDA and the Contractor.

This Contract is executed in English Language in two originals, each Party receiving one set and both the sets will be authentic.

IN WITNESS WHEREOF the Parties through their duly authorized representatives have executed these

presents on the day, month and year first above mentioned, at place.

(Bihar Renewable Energy Development Agency)

(Printed Name)

(Company's Seal)

(CONTRACTOR)

(Printed Name)

(Company's Seal)

