

Bid Specifications for Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand

(JREDA)

Government of Jharkhand

Tender Reference No.:13/JREDA/SHMLS/17-18



Jharkhand Renewable Energy Development Agency (JREDA)

3rd Floor, S.L.D.C. Building, Kusai Colony, Doranda, Ranchi-834002.

Ph.: 0651-2491161, Fax: 0651-2491165,

E-mail: info@jreda.com; Website: www.jreda.com

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e-Procurement Notice

Tender reference no.: 13/JREDA/SHMLS/17-18

Dated: 29.11.2017

1	Name of the work	Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand
2	Estimated cost (Rs.)	Rs. 3,00,00,000/-
3	Completion Period	06 (Six) Months
4	Date of publication of NIT on website: http://jharkhandtenders.gov.in	30.11.2017(Thursday)
5	Date & time of Pre-bid meeting	08.12.2017(Friday) at 1.00 P.M.
6	Last date & time for receipt of online bids	20.12.2017(Wednesday) upto 05:00 PM
7	Submission of original copies of Bid fee & EMD (Offline)	20.12.2017 and 21.12.2017 up to 5.00 P.M.
8	Technical Bid Opening Date	22.12.2017(Friday) at 03:00 PM
9	Name & address of office inviting tender	Director, Jharkhand Renewable Energy Development Agency(JREDA) 3 rd Floor, SLDC Building, Kusai, Doranda, Ranchi- 834002 (Jharkhand)
10	Contact no. of procurement officer	0651-2491163/61
11	Helpline no. of e-procurement	0651-2491163/61

Any change can be seen on website: <http://jharkhandtenders.gov.in> & www.jreda.com

Further details can be seen on website: <http://jharkhandtenders.gov.in> & www.jreda.com

**Sd/-
Director,
JREDA, Ranchi**

Section -1

NIB No: 13/JREDA/SHMLS/17-18

List of Important dates & details of Bids

1.	Name of work	Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.
2	Tender reference no.	13/JREDA/SHMLS/17-18
3	Completion period	06 (Six) Months
4	Mode of submission of tender	Online through www.jharkhandtenders.gov.in
5	Tentative Quantity	Total Quantity: 75 Nos. The quantity mentioned above is tentative and subject to increase or decrease depending on the actual requirement at the time of placing order and resources available. The estimated cost is about Rs. 3.00 Crores
6	Maximum/Minimum lot size	Maximum: 30 Nos. Minimum: 10 Nos. No bidder shall submit bid for quantity less than minimum lot size & more than maximum lot size.
7	Cost of Bid document (Non-refundable)	❖ Rs.10, 000/- (Rupees Ten Thousands only) for General Bidder. ❖ Rs. Nil for MSME of Jharkhand.
8	Earnest Money Deposit	For General Bidder: Rs. 80,000/- for the lot size of 10 Nos. The bidders quoting for higher capacities are required to submit EMD in the same proportion. For SSI/MSME of Jharkhand: Nil.
9	Date of publication of NIT on website: http://jharkhandtenders.gov.in	30.11..2017 (Wednesday)
10	Date & time of Pre-bid meeting	08.12.2017 (Friday) at 1.00 P.M.
11	Period of downloading of bidding documents	Start date: 02.12.2017 Time: 10.00 AM
		End date: 20.12.2017 Time: 05.00 PM
12	Bid online submission	Start date:12.12.2017 Time: 10.00 AM
		End date: 20.12.2017 Time: 05.00 PM
13	Submission of original copies of Bid fee & EMD (Offline)	20.12.2017 and 21.12.2017 up to 5.00 P.M.
14	Technical bid opening date	Date: 22.12.2017 (Friday) Time: 03.00 PM
15	Authority inviting bids	Director, Jharkhand Renewable Energy Development Agency(JREDA)
16	Address	Jharkhand Renewable Energy Development Agency(JREDA) 3 rd Floor, SLDC Building, Kusai, Doranda, Ranchi- 834002. Ph.No: 2491161,Fax No: 0651-2491165 Web site: www.jreda.com E-mail: info@jreda.com

Note: The tender fee and Earnest Money Deposit (EMD) in original must be submitted between all working days from 20.12.2017 to 21.12.2017 by 5.00 PM. If tender fee and EMD are not received before mentioned date and time, tender shall be considered invalid. MSME seeking exemption from Bid fee & EMD, shall submit documentary evidence supporting the exemption.

Place for receiving tender fee & EMD

Jharkhand Renewable Energy Development Agency (JREDA), 3rd Floor, SLDC Building, Kusai, Doranda, Ranchi- 834002.

Instructions to Bidders

Detailed instructions & documents to be furnished for online bidding

1. The guidelines to submit bid online can be downloaded from website <http://.Jharkhandtenders.gov.in>
 2. The interested bidders can download the bid from the website “<http://Jharkhandtenders.gov.in>”.
 3. To participate in bidding process, bidders have to get ‘Digital Signature Certificate (DSC)’ as per Information Technology Act-2000 to participate in online bidding. This certificate will be required for digitally signing the bid. Bidders can get above mention digital signature certificate from any approved vendors (CCA). Bidders, who already possess valid Digital Certificates, need not to procure new Digital Certificate.
 4. The bidders have to submit their bids online in electronic format with digital Signature. The bids without digital signature will not be accepted. No proposal will be accepted in physical form.
 5. Bids will be opened online as per time schedule mentioned in section 1
 6. Bidders should get ready with the scanned copies of cost of documents & EMD as specified in the tender document. Before submission of online bids, bidders must ensure that scanned copy of all the necessary documents have been attached with bid.
 7. Bidder have to produce the original D.D. towards tender fee & EMD in approved form to the authority “Director, Jharkhand Renewable Energy Development Agency, Ranchi” on the date & time as mentioned in the NIT failing which bidder will be disqualified. The details of cost of documents, EMD specified in the tender documents should be the same as submitted online (scanned copies) otherwise tender will summarily be rejected.
 8. Uploaded documents of valid successful bidders will be verified with the original before signing the agreement. The valid successful bidder has to provide the originals to the concerned authority.
 - i. The department will not be responsible for delay in online submission due to any reason.
 9. All the required information for bid must be filled and submitted online. If the bid is not found to be uploaded online in the website (<http://Jharkhandtenders.gov.in>), bid shall be rejected even though the bidder/s have submitted Bid fee & EMD. No hard copy is required to be submitted in the office of JREDA except original Bid fee & EMD.
 10. Other details can be seen in the bidding documents.
- B. Details of documents to be furnished for online bidding
1. Scanned copies of the following documents to be up-loaded in pdf format on the website <http://Jharkhandtenders.gov.in>.
 - i. D. D. towards Tender fee.

- ii. Duly pledged EMD (in case of BG as per Annexure)
- iii. GST certificate.
- iv. PAN Card
- v. Firm's registration certificate/ Registration certificate of MSME of Jharkhand.
- vi. Certificate issued by Industry Dept. or MNRE for system/components manufacturing.
- vii. Audited Balance sheet of last three years with Income Tax Return.
- Viii. IEC/IS certificate of Solar PV module.
- ix. Test certificate of Li Ferro Phosphate battery as per BIS.
 - x. Manufacturer's test certificate of LED & LED luminaire (LM79 & LM80) from a MNRE/NABL accredited test center.

2. Scanned Copies of the Annexure as per the enclosed formats should be uploaded after converting the same to .pdf format.

- i. Annexure-1: Covering letter.
- ii. Annexure-2: Checklist for Technical Bid.
- iii. Annexure-3: Information about the bidding firm.
- iv. Annexure-4: Declaration by the bidder.
- v. Annexure-5: Annual Turn over.
- vi. Annexure-6: Net Worth certificate.
- vii. Annexure-7: Format for power of attorney for signing of bid.
- viii. Annexure-8: Proof of supply/execution of Solar PV LED High Mast Light System/ Solar Power Plant in any SNA/Govt. organization/PSU in the last seven years. Attach copy of orders & satisfactory performance/completion certificate.

3. Duly filled in & digitally signed Price Bid.

4. Uploaded documents of valid successful bidders will be verified with the original before signing the agreement. The valid successful bidder has to provide the originals to the concerned authority on receipt of such letter, which will be sent through registered post.

5. SBD is not to be uploaded by the bidder. The bidder has to give affidavit stating agree / disagree on the conditions in the SBD. The bidders, who disagree on the conditions of SBD, cannot participate in the tender.

Section-3

NIB No: 13/JREDA/SHMLS/16-17

Notice Inviting Bid

Sub: Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.

Preamble:

As part of Solar Photovoltaic Programme, JREDA invites bid for "**Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.**" for short listing of experienced & eligible bidders to whom work shall be allocated for successful execution of the project in a defined time frame. **No bidders shall submit bid for quantity less than minimum lot size and more than maximum lot size.**

(I) The Technical Conditions: The bidder should fulfill the following Technical eligibility conditions:-

1. The bidder should be:
 - (a) MNRE approved Channel Partner/ MNRE approved manufacturer/ MNRE approved PV System integrator

Or

- (b) A registered manufacturing company/Firm/ Corporation in India (including SSI/MSME of Jharkhand) manufacturing at least one of the major components of the Solar PV High Mast Light System. **Authorized dealers companies/firms/ corporations and subcontractors are not eligible to participate.**
2. The bidder should be a functional organization. To substantiate this claim, the bidder should submit the copy of balance sheet for last 3 years. These balance sheets should be duly certified by the Statutory Auditor with his stamp.
3. Registered Micro, Small & Medium Enterprise (MSME) of Jharkhand should submit the attested copy of Registration issued by the Industry Department, Govt. of Jharkhand/ Udyog Adhar.
4. **Experience Requirement:**

For General Bidder: Bidder should have cumulative experience of executing contracts of supply of at least **25% of the quoted quantity** of Solar PV LED High Mast Light System/ Solar Power Plant to any SNA / Govt. Organization / PSU in the last seven years ending up to date of advertisement of this tender. The bidder submitting the bid for higher nos. of SHMLS will require having cumulative work experience equal to **25%** of the total quoted quantity.

For MSME of Jharkhand: Bidder should have cumulative experience of executing contracts of supply of at least **10% of the quoted quantity of Solar PV LED High Mast Light System/ Solar Power Plant** to any SNA / Govt. Organization / PSU in the last seven years ending up to date of advertisement of this tender. The bidder submitting the bid for higher nos. of SHMLS will require having cumulative work experience equal to **10%** of the total quoted quantity.

The copies of work orders and certificate issued by procuring authorities indicating its successful execution and performance must be enclosed as per the Annexure.

5. The offered PV Modules should be as per **IEC61215 edition II / BIS 14286** from an NABL or IECQ accredited laboratory standards having test certificates prescribed by MNRE. The valid test certificate with authorization letter of the manufacturer should be uploaded as annexure. The offered PV Modules should be Crystalline Silicon PV Modules as per IEC 61215 Standards or IS14286 and having test certificates prescribed by MNRE. In addition, the modules must conform to IEC 61730 part I – requirement for construction and part – II requirement for testing, for safety qualification or equivalent IS. The offered modules shall be of standard make, specifications of any reputed brand approved by MNRE having test certificates issued from **MNRE specified** test laboratories.
6. Batteries should fulfil the requirement as per specification given in the Technical Specification of the Bid. Capacity Test Charge/Discharge efficiency Self-Discharge should be as per MNRE requirements and valid test reports with authorization letter of the manufacturer should be uploaded as annexure. The certificate should be in a form of an undertaking letter from the manufacturer complying all the technical specifications of battery. The offered batteries shall be as per BIS and of any reputed brand approved.
7. The Participant should have valid GST/PAN/TAN No.
8. The Bidder should confirm that they have the resources and capability to supply the offered quantity within the scheduled period in the form of an undertaking.

9. **Turnover Requirement:**

For General Bidder: Bidder should have the minimum average Annual Turnover of **25% of project estimated cost** derived from the last three financial years ending on 31.03.2017 on the basis of audited annual accounts for minimum lot size quoted. The bidder submitting the bid for higher nos. of SHMLS will require having average Annual Turnover in same higher proportion (**25%**).

For MSME of Jharkhand: Bidder should have the average Annual Turnover of **10% of project estimated cost** derived from the last three financial years ending on 31.03.2017 on the basis of audited annual accounts for minimum lot size quoted. The bidder submitting the bid for higher nos. of SHMLS will require having average Annual Turnover in same higher proportion (**10%**).

The certificate should be as per the Performa given at **Annexure-5**

10. Net worth Requirement:

For General Bidder: Bidder should have Positive Net Worth of minimum 10% of cost of minimum lot size quoted and thereafter in same proportion for higher quantity as on 31.03.2017 on the basis of audited annual accounts.

For MSME of Jharkhand: Bidder should have Positive Net Worth of minimum 5% of cost of minimum lot size quoted and thereafter in same proportion for higher quantity as on 31.03.2017 on the basis of audited annual accounts.

Net worth certificate should be as per the Performa given at **Annexure-6**

11. Bidders have to download the bid document from website (www.jharkhandtenders.gov.in) and submit the scan copy of the cost of the bid document to be submitted in shape of demand draft of Rs. **10,000/-** (Rupees Ten thousand only) in favour of “Director, JREDA” on any Indian Nationalized Bank/Scheduled Bank, payable at “Ranchi”. The tender fee in original must be submitted from 20.12.2017 to 21.12.2017 by 5.00 PM in the office of JREDA.
12. Bidders should submit in **Part – I (Technical Bid)** the earnest money in the form of Bank Guarantee of requisite value as mentioned in “Section-1 (List of Important dates & details of Bids)”. The Bank Guarantee shall be made in favour of “**Director, JREDA**” payable at Ranchi from any Indian Nationalized bank/Scheduled bank. The bank guarantee shall remain **valid for 12 months**. Only Original Bank Guarantee shall be accepted.

(II) Award of Work and Empanelment Procedure after opening of Financial Bid:

The lowest rate i.e. L1 received would be the appropriate rate for awarding the work. The bidders shall be ranked as L1, L2, L3 and so on based on financial bids.

JREDA will allot the quantum of work to L1 bidder on the basis of bid capacity of the bidder. If required, the remaining work will be then offered to L2 bidder at L1 rate, and so on.

Allocation of the quantity to MSME registered in Jharkhand will be made as per the provisions of section 18.1 (ii) (d) of Jharkhand Industrial Policy 2012 & Jharkhand Procurement Policy 2014. MSME of Jharkhand should be functional & having running production unit in the State and should fulfill all the criteria as fixed in Jharkhand Procurement Policy 2014 and submit the same to JREDA.

Successful bidders shall be required to furnish at the time of Agreement, documentary evidence of the quantity of production of the self manufactured component/s for the last three years along with all original documents uploaded in the tender.

SECTION-4

NIB No: 13/JREDA/SHMLS/17-18

Instructions to Bidders (ITB)

A. General

1. Scope of Bid

- 1.1. The JREDA invites bids for the work as described in these documents and referred to as "the works". The name and identification number of the works is provided in the Notice Inviting Bid.
- 1.2. The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Part (I)- General Conditions of Contract.
- 1.3. Throughout these documents, the terms "bid" and "tender" and their derivatives (bidder/ tenderer, bid/ tender, bidding/ tendering) are synonymous.

2. Source of Funds

- 2.1. The JREDA has decided to undertake the works of “**Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.**” through funds from the Government of Jharkhand, to be implemented through JREDA.

3. Eligible Bidders

- 3.1. This Invitation for Bids is open to all bidders as defined in the Notice Inviting Bid.
- 3.2. Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the works.

4. Qualification of the Bidder

- 4.1. All bidders shall provide in Section 3, Forms of Bid and Qualification information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 4.2. All bidders shall include the following information and documents with their bids in Section 3, Qualification Information unless otherwise stated in the Notice Inviting Bid/ITB.
 - a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business.
 - b) Copy of written power of attorney of the signatory of the Bid to commit the Bidder.
 - c) Total monetary value of the similar nature of the works performed for each of the last seven years;

- d) Experience in works of a similar nature and size for each of the last seven years, and details of works in progress or contractually committed with certificates from the concerned officer or competent authority.
 - e) Evidence of ownership of one of the component of Solar PV High Mast Light System i.e. Solar PV module/PCB/Batteries/Mast.
 - f) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the last three years.
 - g) Authority to seek references from the Bidder's bankers;
 - h) Information regarding any litigation or arbitration during the last seven years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter;
 - i) the proposed methodology and programme of construction, backed with equipment and material planning and deployment, duly supported with broad calculations and Quality Management Plan proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications and within the stipulated period of completion.
- 4.3. Bids from joint venture are not allowed.
- 4.4. Even though the bidders meet the qualifying criteria, they are subject to be disqualified if they have:
- i) made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
 - ii) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures
 - iii) Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to JREDA.

5. One Bid per Bidder

- 5.1. Each Bidder shall submit only one Bid for one work. A Bidder who submits more than one Bid will cause the proposals with the Bidder's participation to be disqualified.

6. Cost of Bidding

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

7. Site Visit

- 7.1. The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarise himself with the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for supply & installation of the Works. The costs of visiting the Site shall be at the Bidder's own

expense. He may contact the person whose contact details are given in the Notice Inviting Bid.

B. Bidding Documents

8. Content of Bidding Documents

- 8.1. The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10 of ITB.
1. Notice Inviting Tender
 2. Instructions to Bidders
 3. Qualification Information
 4. Conditions of Contract
 5. Specifications
 6. Bill of Quantities
 8. Form of Bid
 9. Form of Bank Guarantee.
 10. Annexures
- 8.2. The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms and specifications, bill of quantities, forms in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 23 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

9. Clarification of Bidding Documents and Pre-bid Meeting

- 9.1. A prospective Bidder requiring any clarification of the bidding documents may notify the JREDA in writing at the JREDA's address indicated in the Notice Inviting Tenders. Copies of the JREDA's response will be uploaded in form of corrigendum on our website www.jreda.com.
- 9.2. Pre-bid meeting will be held on **08.12.2017 (Friday) at 01.00 PM** in the Conference Hall of JREDA. The bidder or his authorized representative may attend the meeting.
- 9.3. The purpose of the such a meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage, related to specific tender.
- 9.4. The bidder is requested to submit any questions in writing or by e-mail so as to reach the JREDA not later than two days before the meeting.
- 9.5. Any modifications of the bidding documents listed in Clause 8.1 of ITB, which may become necessary as a result of the pre-bid meeting shall be made by the JREDA exclusively through the issue of an Addendum/Corrigendum pursuant to Clause 10 of ITB on website.
- 9.6. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

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

C. Preparation of Bids

11. Language of Bid

- 11.1. All documents relating to the Bid shall be in the language specified in the Notice Inviting Bid.
- 11.2. Documents Comprising the Bid

I. Technical Bid – (Fee/Pre-Qualification/Technical Cover)

- 11.3. EMD & Tender Fee
 - a) Scanned Copy of Demand draft drawn in favour of “DIRECTOR, JREDA”, payable at Ranchi towards Cost of Tender Fee and Earnest Money Deposit as specified in the Notice Inviting Bid.
- 11.4. Pre-Qualification Details
 - a) Scanned Copy of Certificate for availability of Credit Facility for 10% of Tendered Amount from any Scheduled Commercial Bank.
- 11.5. Technical Details & Declaration
 - a) Proposed work programme (work method, time schedule and financial flow), description, and charts as necessary (Duly to be signed digitally) to comply with the requirement of the Bidding Document.
 - b) Scanned copy of an Affidavit by the Bidder that he/she has accepted the S.B.D.
- 11.6. Technical Details of documents
Scanned copies/Prescribed Formats of Documents to be uploaded in .pdf format file duly digitally signed by the bidder.
 - a) Income Tax clearance certificate/PAN Card
 - b) GST certificate.
 - c) Proof of completion of similar works as notified in NIB during the last 7 years and list of similar works in hand in the prescribed formats in the ITB duly signed by the competent authority of the issuing Department (in format given in ITB)
 - d) Financial Report for the last 3 years (upto 31/3/2017) certified by chartered Accountant.
 - e) Annual Turn over Details certified by Chartered Accountant.
 - f) Net worth certificate certified by Chartered Accountant.

- g) List of current litigant cases in which the bidder is involved (in format given in ITB).
- h) An affidavit for non-engagement of related persons.
- i) Proof of test certificates solar PV module, batteries, LED and LED Luminaire. The test certificate issued before 1st April 2014 will lead to outright rejection of the BID
- j) Details of the bidder as per instruction as per Annexure of Bid should be duly digitally signed.
- k) Undertaking of Bidder that he is able to invest minimum of cash upto 10% as defined in ITB.
- l) Undertaking for validity of bid for 180 days.
- m) Any other documents as required in the clause 4.4 of the ITB.

II. Financial Bid – (Finance Cover)

- 12.1. Duly Quoted & digitally signed Bill of Quantity (BOQ) in the file supplied by JREDA in .xls format shall be uploaded.

NOTE:- All the documents should be digitally signed.

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

Section Particulars

- a) Notice inviting Tender
- b) Instruction to the bidders
- c) Conditions of Contract
- d) Contract Data
- e) Specifications
- f) Drawings if any

13. Bid Prices

- 13.1. The Contract shall be for the whole Works, as described in Clause 1.1 of ITB.
- 13.2. The Bidder shall adopt the Item Rate Method as specified in the Notice Inviting Bid only the same option is allowed to all the Bidders.
- 13.3. All duties, taxes, royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder.
- 13.4. The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment.
- 13.5. Quoted price for LED based SHMLS are complete in all respect as per Technical Specifications inclusive of all Central/State/Local taxes & duties, packing, forwarding, transit insurance, loading & unloading, transportation & other charges etc. for destination at any site in Jharkhand and inclusive of installation, testing, commissioning, performance testing and training.
- 13.6. Tenderers should quote their rates considering wide variation of site conditions, variation in price of different components during the year 2017-18 and keeping the quantum and

quality of work in mind. If JREDA anticipates that rate is abnormally low or high, tender may be rejected.

14. Currencies of Bid

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

15. Bid Validity

15.1. Bids shall remain valid for a period of 180 (One hundred Eighty) days after the deadline date for bid submission specified in Clause 19 of ITB. A bid valid for a shorter period shall be rejected by the JREDA as non-responsive.

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

16. Earnest Money

16.1. The Bidder shall furnish, as part of the Bid, Earnest Money, in the amount specified in the Notice Inviting Bid.

16.2. The Earnest Money shall, at the Bidder's option, be in the form of Bank Guarantee/Demand Draft of a scheduled commercial bank, issued in favour of the name given in the Notice Inviting Bid. The Bank Guarantee shall be valid for 12 months or more after the last date of receipt of bids. Other forms of Earnest Money acceptable to the JREDA are stated in the Notice Inviting Bid.

16.3. Any bid not accompanied by an acceptable Earnest Money, unless exempted in terms given in the Notice Inviting Bid, shall be rejected by the JREDA as nonresponsive.

16.4. The Earnest Money of unsuccessful bidders will be returned within 30 days of the end of the Bid validity period specified in Clause 15.1 of ITB.

16.5. The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.

16.6. The Earnest Money may be forfeited:

- a) If the Bidder withdraws the Bid after bid opening (technical bid) during the period of Bid validity;
- b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - i. sign the Agreement; and/or
 - ii. Furnish the required Performance Security.

17. Alternative Proposals by Bidders

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

D. Submission of Bids

18. Sealing and Marking of Bids

- 18.1. The Bidder shall place the file marked “Technical Bid”

Technical Bid: To be opened on (date and time of Technical Bid opening as per clause 20.1 of ITB.)

The Technical bid file shall only contain Original of DD towards payment of bid fee and DD or BG towards payment of EMD or Bid fee and EMD exemption certificate (for MSME of Jharkhand only).

- 18.2. The file containing the Technical Bid shall a) be addressed to the JREDA at the address provided in the Notice Inviting Bid b) bear the name and identification number of the Contract as defined in clause 1.1 of ITB; and c) provide a warning not to open before the specified time and date for Bid opening as defined in clause 20.1 of ITB.

19. Deadline for Submission of Bids

- 19.1. Complete Bids (including Technical and Financial) must be received by the JREDA at the address specified in the Notice Inviting Bid not later than the date and time indicated in the Notice Inviting Bid.
- 19.2. The JREDA may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10.3 of ITB, in which case all rights and obligations of the JREDA and the bidders previously subject to the original deadline will then be subject to the new deadline.

E. Bid Opening and Evaluation

20. Bid Opening

- 20.1. The JREDA will open the bids received (except those received late). In the event of the specified date for the submission of bids being declared a holiday for JREDA, the Bids will be opened at the appointed time and location on the next working day.
- 20.2. The files containing the technical bid shall be opened. The document marked “cost of bidding document” will be opened first and if the cost of the bidding documents is not there, or incomplete, the remaining bid documents will not be opened, and bid will be rejected.

- 20.3. In all other cases, the amount of Earnest Money, forms and validity shall be announced. Thereafter, the bidders' names and such other details as the JREDA may consider appropriate, will be announced by the JREDA at the opening.
- 20.4. The JREDA will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Clause 20.3 of ITB.
- 20.5. Evaluation of the technical bids with respect to bid security, qualification information and other information furnished in Part I of the bid in pursuant to Clause 12.1 & clause 4.4 of ITB, shall be taken up and completed and a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.
- 20.6. The JREDA shall inform, by email, whose technical bids are found responsive, date, time and place of opening as stated in the Notice Inviting Bid. In the event of the specified date being declared a holiday for the JREDA, the bids will be opened at the appointed time and location on the next working day through they or their representative, may attend the meeting of opening of financial bids.
- 20.7. At the time of the opening of the 'Financial Bid', the names of the bidders whose bids were found responsive in accordance with clause 20.5 of ITB will be announced. The financial bids of only these bidders will be opened. The remaining bids will be returned unopened to the bidders. The responsive bidders' names, the Bid prices, the total amount of each bid, and such other details as the JREDA may consider appropriate will be announced by the JREDA at the time of bid opening. Any Bid price which is not read out and recorded, will not be taken into account in Bid Evaluation
- 20.8. The JREDA shall prepare the minutes of the opening of the Financial Bids.

21. Process to be Confidential

- 21.1. Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the JREDA's processing of bids or award decisions may result in the rejection of his Bid

22. Clarification of Bids and Contacting the JREDA

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

23. Examination of Bids and Determination of Responsiveness

- 23.1. During the detailed evaluation of "Technical Bids", the JREDA will determine whether each Bid (a) meets the eligibility criteria defined in Clauses 3 and 4; (b) has been properly

signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications and drawings.

- 23.2. A substantially responsive "Financial Bid" is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the bidding documents, the JREDA's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 23.3. If a "Financial Bid" is not substantially responsive, it will be rejected by the JREDA, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

24. Corrections of Errors

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

25. Evaluation and Comparison of Bids

- 25.1. The JREDA will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 23 of ITB.
- 25.2. In evaluating the bids, the JREDA will determine for each Bid the evaluated Bid price by adjusting the Bid price by making correction, if any, for errors pursuant to Clause 24 of ITB.
- 25.3. If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the JREDA may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and

schedule proposed. After evaluation of the price analyses, the JREDA may require that the amount of the performance security set forth in Clause 32 of ITB be increased at the expense of the successful Bidder to a level sufficient to protect the JREDA against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder.

- 25.4. After its evaluation, the JREDA may require that the amount of the performance security set forth in Clause 30 be increased at the expense of the successful Bidder to a level sufficient to protect the JREDA against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the JREDA, which shall be final, binding and conclusive on the bidder.

26. Price Preference

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

F. Award of Contract

27. Award Criteria

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

28. JREDA's Right to accept any Bid and to reject any or all Bids

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

29. Notification of Award and Signing of Agreement

- 29.1. The bidder whose Bid has been accepted will be notified of the award by the JREDA prior to expiration of the Bid validity period by cable, email, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the Part I - General Conditions of Contract called the "Letter of Acceptance") will state the sum that the JREDA will pay to the

Contractor in consideration of the execution and completion of the Works (hereinafter and in the Contract called the "Contract Price").

- 29.2. The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 30.
- 29.3. The Agreement will incorporate all agreements between the JREDA and the successful Bidder. It will be signed by the JREDA and the successful Bidder after the performance security is furnished.
- 29.4. Upon the furnishing by the successful Bidder of the Performance Security, the JREDA will promptly notify the other Bidders that their Bids have been unsuccessful.
- 29.5. The successful bidder has to sign the Agreement within 15 days from the date of issue of the Work Order, along with the required Security Deposit.

30. Security Deposit:

- 30.1. Successful General bidder shall submit a security deposit @10% of the allotted work order value in the form of Bank Guarantee valid for one year on or before 15 days from issuing work order. If Bank Guarantee will not be submitted within stipulated period from the date of issue of work order then JREDA shall cancel the work order.
- 30.2. Successful MSME bidders of Jharkhand shall be required to deposit only 10% of security deposit as per Jharkhand Procurement Policy.
- 30.3. The Security Deposit shall be refunded / released to the bidder after expiry of 60 days from the actual date of successful completion.

31. Performance Guarantee:

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

32. Five Years Comprehensive Maintenance Contract (CMC):

- 32.1. The SHMLs system contract price includes the provision of 5 years mandatory Comprehensive Maintenance Contract (CMC). To ensure long term sustainability of the system, the bidder must provide his representatives name, full address, mobile number and photographs to JREDA with one hard copy as well as the names and contact details of all technicians must also be provided. Failure to do shall invite penalty and action.
- 32.2. The Comprehensive Maintenance Contract shall include servicing & replacement guarantee for parts and components (such as battery, electronics, Inverter, PV modules and other hardware) of SHMLs for five years from the date of installation. **PV modules shall be warranted for 25 years.** Battery should be warranted for a minimum life of 5 years. The date of CMC maintenance period shall begin on the date of actual commissioning of SHMLs. It is mandatory for the contractor to carry out CMC regularly and submit report to JREDA quarterly. Failure to submit quarterly CMC reports timely shall invite penalty. Failure to submit quarterly CMC reports timely shall invite penalty of Rs. 1000/- per week after the end of the one month of the ending of the quarter. If the successful bidder is found to be not doing CMC work continuously for two quarters, then bidders performance guarantee will be forfeited, work order shall be cancelled and bidder shall be black listed. **For carrying out effective and smooth maintenance of the Solar High Mast Lighting Systems, reasonable number of service centers must be established by the successful bidder before the commissioning of the systems.**

33. Preventive/Routine Maintenance:

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

34. Breakdown / corrective Maintenance:

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

35. Advances

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

36. Corrupt or Fraudulent Practices

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

Section-5

NIB No: 13/JREDA/SHMLS/17-18

General Terms & Conditions

1. Introduction:

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

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

2. Scope of work:

The Scope of work for Supply, Installation, Testing & Commissioning and 5 years Comprehensive Maintenance Contract (CMC) of LED based High Mast Lighting System in the state of Jharkhand complete set in all respects along with one set of operational instruction cum maintenance manual (both English and Hindi) for each set and delivery on for destination/site basis across the State of Jharkhand as per the direction of JREDA. The list of destinations/consignees will be given to the successful bidder by JREDA before the start of dispatch.

3. Bid documents:

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

4. Price:

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

5. Inspection of the factory and Tests:

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

6. Payment terms and conditions:

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

- (a) **60%** of the Contract Price shall be paid against supply and delivery of goods in full and in good condition as certified by Consignee & JREDA Officials after submission of following documents:
 - i. Original Commercial invoice raised from the state of Jharkhand for the supply made in triplicate (1+2).
 - ii. Copy of duly raised delivery challan / transportation challan /lorry receipt.
 - iii. Duly filled **Annexure-13** should be submitted in three sets (one for Consignee record, one for JREDA Hq. and one for JREDA's field Executive Engineer).
- (b) **30%** of the Contract Price shall be paid against Installation, Testing & Commissioning after submission of following documents:
 - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
 - ii) Duly filled **Annexure-14**.
 - iii) Certificate for minimum seven days of satisfactory performance with photographs of the each installed SHMIs with GPS Co-ordinates in Soft copy(CD).
- (c) Rest **10%** of the Contract Price shall be paid @**2%** of the Contract Price on completion of every one year period of the 5 year CMC period, after submission of following documents:
 - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
 - ii) Submission of quarterly reports of CMC undertaken by the manufacturer **as per Annexure-15**.

7. Dispatch Instructions:

All items/equipments shall be subject to **Pre-Dispatch Inspection (PDI)** by JREDA or its authorized representatives at the manufacturing site before their dispatch. The sample size for PDI shall be in accordance with BIS norms or @ 2% of the quantity offered, whichever is lesser. The manufacturing site must have sufficient testing facilities. The manufacturer will submit test report with regard conformity to technical specifications for the items to be dispatched to work site of

JREDA. However, equipments will be dispatched from the manufacturing site only after the receipt of “**Dispatch Clearance**” from JREDA after acceptance of test report.

Randomly selected Sample/s from each lot offered for PDI, shall be sent to MNRE approved or NABL accredited lab for verification of Specifications and Performance of the System. The cost of such tests shall be borne by JREDA.

No consignment shall be dispatched without the receipt of dispatch clearance from JREDA. No PDI shall be done at any site other than the concerned manufacturing site. Successful bidders have to arrange necessary equipments for testing the materials to be supplied during the pre-dispatch inspection by JREDA at their manufacturers unit. Failure to fulfill the PDI conditions shall lead to cancellation of work order and forfeiture of security deposit.

The items which are being procured through this bid have to be installed on the basis of demand to be received by JREDA.

After finalization of the tender JREDA authority will take decision for issuing work order for the work under scope to the successful bidder then within 45 days, the supplier will have to ensure pre dispatch inspection from JREDA and within next 15 days JREDA will issue Dispatch instruction. Accordingly the work of supply & installation will be completed by the vendor within 60 days period from the date of issue of dispatch instruction. The bidders shall have no claim regarding economy of scale, choice of district/s or choice of region in the state, for the purpose of transportation of items/materials to the demand/work sites.

8. Liquidated Damages for Delay in Completion:

If the supplier fails in the due performance of the contract to deliver any part of the equipment or complete the work within the time fixed under the contract or any extension thereof granted to him by JREDA and/or to fulfill his obligations in time under the contract, he shall be liable to pay to JREDA @0.5% per week maximum up to 10% of work value delayed beyond contract period.

9. Risk & Cost:

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

10. Insurance:

The supplier shall arrange for transit and erection insurance of the materials & equipments for supply & installation of Solar High Mast Lighting System.

11. Assignment/ Sub-letting:

The Manufacturer shall not assign or sublet in whole or part of the work, and its obligations to any third party to perform under the order/contract. However, the manufacturer can procure those materials from any other manufacturer, which are not manufactured by the firm.

In the event the manufacturer contravenes this condition, JREDA reserves the right to reject the equipment/work contract and procure the same from elsewhere at manufacturer's risk and cost. The Manufacturer shall be solely liable for any loss or damage which JREDA may sustain in consequence or arising out of such replacing of the contract work.

12. Completeness of Tender:

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

13. Compliance with Regulations:

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

14. Agreement:

The successful qualified suppliers shall have to enter into an agreement in the office of the Director, JREDA, in prescribed format before commencement of supply.

15. Income Tax / GST:

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

16. Training Program, After Sales Service and Availability of Spare Parts:

- 16.1.** The responsibility of organizing training program for SHMLs will rest on the successful bidder. The training program will be organized in consultation with JREDA/Consignee. The training program will focus on operation and maintenance of SHMLs. Printed leaflet/literature should be made available in Hindi by the Supplier regarding the operation and maintenance of their SHMLs.
- 16.2.** The Supplier shall depute authorized Service Engineer within 7 days from the date of the intimation of fault, and establish sufficient inventory of spares in the State in consultation with JREDA to provide satisfactory and uninterrupted services during the warrantee period.

17. Force Majeure conditions:

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

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

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

18. Cancellation of Work Order:

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

- a) If the contractor/supplier is found defaulter for delayed supply, installation & commissioning or failure to deliver satisfactory performance or supply of substandard materials.
- b) If the contractor/supplier fails to comply with the provision(s) of the contract including the responsibilities to fulfill the 5 years CMC as per the provisions mentioned.
- c) If the Contractor/vendor is involved in any action of moral turpitude.

JREDA reserves the right to allocate the work of work order cancelled as per above mentioned provisions, to other empaneled contractors.

Other terms & conditions enumerated in the NIB will be the integral part of this contract.

19. Jurisdiction of the Court:

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

Section-6

NIB No: 13/JREDA/SHMLS/17-18

Technical Specification

SOLAR HIGH MAST LIGHTING SYSTEM

A stand-alone Solar PV White- LED High Mast Light consist of white LED luminary of maximum 4*30 Watt (LED + Driver) as per configuration along with solar PV modules and battery of given capacity, necessary control electronics-inter connecting wires / cables, module mounting structures etc. to operate the load for dusk to dawn. The broad performance specifications of a White Light Emitting Diode (W-LED) light source based solar street lighting system are given below

BROAD PERFORMANCE PARAMETERS

PV Module	Only indigenous modules shall be used in the project. SPV module aggregate capacity 800 Wp (200 Wp X 4 Nos.) at 16.4 +_ 0.2 Volt under STC. Module Voc at least minimum of 21V.
Battery	Li Ferro Phosphate batteries of capacity 12 Volt, 480 Ah @ C/10, (12 V, 240 Ah x 2Nos. or 12V, 120 Ah x 4 nos.)
Light Source	<ul style="list-style-type: none">• White Light Emitting Diode (W-LED) 4*30 Watt(LED +Driver)• Using LEDs which emits ultraviolet light will not be Permitted• Only Nichia/ Osram/ Philips Lumileds/ Cree/ Seoul/ Everlite make LED's shall be used for light.
Light Out put	White color (color temperature 5500-6500 K). Lumen efficacy of LED- min 140 lumens/Watt. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.
Pole (Minimum 80 Microns)	Octagonal GI Pole, 9M long of thickness min 5MM and Bottom Dia (A/F):210 MM Top Dia (A/F): 90 MM, mounted on a pedestal of 0.9M height with suitable RCC foundation at least 1.5M deep(single column of 900mmX900mmX1500mm)
Raising and Lowering lighting mast	Manual pulley system
Decorative Pedestal	750x750x1000MM
Electronics Efficiency	Minimum 85% total
Autonomy	3 days or Minimum 24 operating hours per permissible Discharge
Average duty cycle	Dusk to dawn

MINIMUM TECHNICAL REQUIREMENTS / STANDARDS

1. DUTY CYCLE

The Solar PV White- LED High Mast Light system should be designed to operate for dusk to

dawn.

2. SPV MODULES

- i. **Only indigenous modules of reputed brand IEC Tested shall only be used in the project.**
Crystalline high power/efficiency cells shall be used in the Solar Photovoltaic module. The power output of the each module shall not be less than 200 Wp at load voltage* 16.4 +- 0.2 Volt under standard test conditions (STC). * Not applicable for MPPT charge controller.
- ii. The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.
- iii. Crystalline high power/efficiency cell shall be used in the Solar Photovoltaic module. The cell efficiency should not be less than 16%.
- iv. PV module must be warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- v. The terminal box on the module shall be IP 65 and designed for long life out door operation in harsh environment should have a provision for opening for replacing the cable, if required.
- vi. The offered module shall be in accordance with the requirements of MNRE.
- vii. Latest edition of IEC 61215 edition II / IS 14286 for Crystalline and shall be certified by MNRE authorized test center. The bidder shall submit appropriate certificates.
- viii. PV modules must quality to IEC 61730 Part 1- requirements for construction & Part 2 – requirements for testing, for safety qualification.
- ix. Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided and if required, blocking diode(s) may also be provided.
- x. Identification and traceability
Each PV module must use a RF identification tag (RFID), which must contain the following information:
 - a) Name of the manufacturer of PV Module
 - b) Name of the Manufacturer of Solar cells
 - c) Month and year of the manufacture (separately for solar cells and module)
 - d) Country of origin (separately for solar cells and module)
 - e) I-V curve for the module
 - f) Peak Wattage, I_m , V_m and FF for the module
 - g) Unique Serial No and Model No of the module
 - h) Date and year of obtaining IEC PV module qualification certificate
 - i) Name of the test lab issuing IEC certificate
 - j) Other relevant information on traceability of solar cells and module as per ISO 9000 series.
 - k) The RFID should be inside the module laminate.

3. BATTERY

Battery shall be Lithium Ferro phosphate with maximum Depth of Discharge 90%, the batteries should conform to the latest BIS /International standards, copy of the same relevant test certificate for the battery should be furnished. The battery should be tested by reputed Indian Central Electro-chemical research laboratory (CECRI) Tamilnadu or authorized MNRE test center.

- i. Capacity of the each battery shall not be less than 12V, 100Ah/200 Ah at C10 rate.
- ii. DOD shall be 75% i.e., at least 75 % of the rated capacity of the battery should be between fully charged & load cut off conditions.
- iii. Battery terminal shall be provided with covers.
- iv. Suitable carrying handle shall be provided.
- v. Bidder shall mention the design cycle life of batteries at 75%, 50% and 25% depth of discharge at ambient temperature up to 45 degree C.
- vi. The batteries shall be designed for operating in ambient temperature of site upto 55 degree C.
- vii. The self-discharge of batteries shall be less than 2 % per month of rated capacity at 27 degree C.

4. Light Source:

- i. The light source will be of white LED type The color temperature of white LEDs used in the system should be in the range of 5500 degree K – 6500 degree K. Use of LEDs which emits ultraviolet light will not be permitted.
- ii. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred. The light output from the white LED light source should be almost constant.
- iii. The lamps should be housed in an assembly suitable for outdoor use and shall comply with IP65. The LED housing should be made of pressure die cast aluminum having sufficient area for heat dissipation and heat resistant toughened clear glass/ high quality poly carbonate fitted with pressurized die cast aluminum frame with SS screws. The temperature of heat sink should not increase more than 30 degree C above ambient temperature even after 48 hrs of continuous operation. This condition should be complied for the dusk to dawn operation of the lamps while battery operating at any voltage between the loads disconnect and charge regulation set point.
- iv. High power LED of minimum 1 watt each capacity capable to withstand maximum 1 amp driving current having lens angle greater than 120 degree shall be used. The LED of make Nichia/Osram/Philips Lumileds/Cree/Seoul/Everlite having LM 79 and LM 80 test report shall only be used.
- v. The LED efficacy should be more than 140 lumen / watt, The total luminaries efficacy should not be less than 100 lumens per watt.(Including all losses) i.e the lumens output of each luminary should not be less than 1800 lumens.
- vi. All LED in circuit must be connected in series only. It must incorporate fail short mechanism in all LEDs
- vii. The LEDs used in the luminary should have life time more than 50,000 hrs.
- viii. The lumen depreciation of LED shall not be more than 30% even after 50,000 burning hours.
- ix. Power consumption of the each LED Luminary / Lighting unit shall not be more than 36 W (including LED Driver power loss).

- x. The lux level over a 16 meter of radius should not be less than 5% at the point mentioned below in the lux level distribution chart.
- xi. Other Parameters :
 - LED DC current regulation – better than 3 %
 - Input – 12 V DC
 - Driver Type- DC-DC (as per IEC 62384)
 - CRI - 70 % Typical
 - Lighting quality- Free from glare and flickering and UV
 - Ambient temp– up to 50 deg
 - DC to DC convertor efficiency >=90 %
- xii. The connecting wires used inside the luminaries, shall be low smoke halogen free, fire retardant e-beam cable and fuse protection shall be provided at input side.
- xiii. Auto resettable reverse polarity protection shall be provided
- xiv. LED lighting unit shall comply with LM -79-08 and LM -80-08 Standards and copy of test certificate should be submitted.
- xv. The make, model number, country of origin and technical characteristics of white LEDs used in the lighting system must be furnished.
- xvi. The luminaries must have light distribution polar curve. The bidder should submit the polar curve of luminaries in LM 79 report.

5. Electronics

MPPT charge controller to maximize energy drawn from the Solar PV array. The MPPT charger shall be microcontroller based. The MPPT should have four stage charging facilities i.e Bulk, Absorption, Float and Equalization. The auto equalization facilities for every (30+_3 days) and provision to verify it during testing. The PV charging efficiency shall not be less than 90% and shall be suitably designed to meet array capacity. The charge controller shall conform to IEC 62093, IEC 60068 as per specifications

- i. Protection against polarity reversal of PV array and battery, Over Current, Short Circuit, Deep Discharge, Input Surge Voltage, Blocking diode protection against battery night time leakage through PV Module
- ii. Electronics should operate 21 volt and 10 volt and its Euro efficiency should be at least 90 %.
- iii. The system should have protection against battery overcharge and deep discharge conditions. The numerical values of the cut off limits of lower voltage should not be less than 11.1 Volt and over voltage cutoff should be 16.5 V
- iv. The system should have protection against Microwave radar sensor auto Dimming system.

- v. Full protection against open circuit, accidental short circuit and reverse polarity should be provided.
- vi. Charge controller shall have automatic dusk-dawn circuit based on SPV module as sensor for switching on/off the high mast light without manual intervention. The sensor must not get triggered by impulse lighting like lightning flashes and firecrackers.
- vii. The self-consumption of the charge controller shall not be more than 20 mA at rated voltage and rated current.
- viii. Adequate protection shall also be incorporated under no-load conditions (i.e. when the system is ON & the load (LED Lamp is removed)
- ix. The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.
- x. All capacitors shall be rated for max. temp of 105° C.
- xi. Resistances shall preferably be made of metal film of adequate rating.
- xii. Device shall have adequate thermal margin should be at least 25 degree below the allowable junction temperature while operating at an ambient temperature of 55 degree C and full load.
- xiii. Fibre glass epoxy of grade FR 4 or superior shall be used for PCB boards.

6. Technical Requirement/Standards

Item / System	Applicable BIS /Equivalent IEC Standard Or MNRE Specifications	
	Standard Description	Standard Number
Solar PV Systems	Crystalline Silicon Terrestrial PV Modules	IEC 61215 / IS14286 Test Certificates / Reports from IECQ / NABL accredited laboratory for relevant IEC / equivalent BIS standard.
Electronics		EN50530
Charge Controller/MPPT Units and Protections		IEC IEC 62093 Equivalent BIS Std.

Storage Batteries	General Requirements & Methods of Testing	Latest BIS standard
Cables	General Test and Measuring Method PVC insulated cables for working voltage up to and including 1100 V UV resistant for outdoor Installation	IEC 60189 IS 694/ IS 1554 IS/IEC 69947
Junction Boxes /Enclosures for Inverters/Charge Controllers/Luminaries	General Requirements	IEC 62208 IP 65
LED	LED performance Luminary performance Driver safety	LM -80-08 LM 79-08 IEC62384
Protection	Over charge Deep discharge protection for battery Reverse Polarity for panel and battery	
Dimming	Microwave radar sensor auto Dimming	

6.1. MECHANICAL HARDWARE

- (i) A galvanized metallic frame structure to be fixed on the pole to hold the SPV module(s). The frame structure should be fixed at 30 degree from horizontal facing true south.
- (ii) The pole should be hot deep Galvanized Iron Octagonal pole in single length for 9.0 mtr. Height as per specification as under:
 - a) The Octagonal poles shall be Hot deep galvanized to min 80 microns. The material of pole shall be as per specification of BS EN 100025, ISO 1461.
 - b) The size of the pole shall be min 90 mm (A/F) at Top side, 210 mm (A/F) at bottom side with thickness of 5 mm minimum.
 - c) The base plate of pole shall be of size 300 X 300 X 16 mm duly welded to pole.
 - d) Pole should have the arrangement at top for mounting of Solar panel of design capacity with mounting structure at an angle of latitude $\pm 2^0$ degree.
 - e) The four LED luminaries shall be mounted on this pole at height of 6.5 meter from pole bottom.
 - f) The battery either two or four shall also be mounted on this pole at suitable height hence

provision should be made accordingly.

- g) The pole shall be mounted on suitable RCC foundation at least 1.5 meter deep and 0.5 meter above ground with 4 bolt of min 20 mm size
- h) The Nut -Bolts in battery box and panel structures should be proper riveted to ensure the theft.
- i) The design and foundation details of the pole shall be got approved from JREDA before execution of work.

(iii) Battery box:

Two vented metallic box of 20 SWG thick made of pre coated galvanized ms sheet with 60 microns thickness for housing the storage battery outdoors should be provided with proper lock and key. The boxes should be inscribed with JREDA written on at least two faces. The size of box should be as per battery size (including vent plug/level indicator) providing minimum clearance of 25 mm on all sides. The battery box is to be properly rest/mounted on pole at 03 meters of height from ground level. Louvers for proper ventilation should be provided on one side and back of the battery box. No vent shall be providing on top of battery box. Box should be provided with proper locking arrangement. The edges of box should be turned properly to give smooth edge and good strength. Two wooden battens should be fixed inside the battery box to avoid the electrical contract between battery and box. Components and hardware shall be vandal and theft resistant. All parts shall be corrosion- resistant

(iv) Electric cable

The electric cable used shall be twin core PVC insulated water and UV resistance copper cable of minimum size 1.5mm. Cable shall meet IS 1554 / 694 Part 1:1988 & shall be of 650 V/ 1.1 kV.

6.2. OTHER FEATURES

A toll free number (i.e. 1800 180 0005) of IVRS of JREDA and 14 digit UID number of minimum computer font size 72 or 13 mm (issued/provided by JREDA) is to be embossed/ punch on pole between 1-1.5 meter above from ground level and in front of battery box by contractor/ bidder, which in case of non-working/ operational problems etc of system will be dialed by the beneficiary etc to lodge a complaint in respect of system problems. The IVRS will divert the complaint to Contractor/ bidder through E mail, SMS etc. The contractor/ bidder will have to rectify the same to make/ restore the system to working position within 72 hours in the warrantee period of 5 years, failing which the system may be get rectified on contractor/ bidder cost and the cost will be recovered by contractor/ bidders pending claims

what so ever and appropriate action as per non compliance etc of agreement will be considered/taken.

6.3. INSTALLATION OF SYSTEM:

The system should be properly installed at site. The SPV module mounting structure along with telescopic octagonal pole should be properly grouted depending upon the location and requirement of the site. The grouting should be such that it should withstand the maximum wind speed /storm of 150 kmph. The pole should be rest on a suitable foundation. (RCC Foundation size 900 mm x900 mm x 1500 mm deep and 900 mm above the ground level. must have 4 nos. foundation bolts of 1000 mm & 24mm dia.) Adequate space should be provided behind the PV module/array for allowing un-obstructed air flow for passive cooling. Cables of appropriate size should be used to keep electrical losses to a bare minimum. Care should be taken to ensure that the battery is placed with appropriate leveling on a structurally sound surface. The control electronics should not be installed directly above the battery. All wiring should be in a proper conduit or capping case. Wire should not be hanging loose. Any minor items which are not specifically included in the scope of supply but required for proper installation and efficient operation of the SPV systems is to be provided by the manufacturer as per standards.

6.4. WARRANTY

The mechanical structures, electrical works including power conditioners/inverters/charge controllers/ maximum power point tracker units/distribution boards/digital meters/ switchgear/ storage batteries, etc. and overall workmanship of the SPV power plants/ systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years.

6.5. Traceability of the product to be supplied

In order to prevent the misuse of the product such as unauthorized sale or diversion to the open market, the following incorporation shall be made in the product.

- (i) Engraving (or) Screen printing of JREDA at a suitable place on the main components viz., SPV Panel, Battery, LED Lighting Units to be used in the installation of the solar high mast lighting systems.
- (ii) The unique system ID number as provided by JREDA shall be embossed or punch or permanently riveted on each pole and battery box of the system.

Annexure-1: Format for Covering Letter

NIB No: 13/JREDA/SHMLS/17-18

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

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi - 834002.

Sub: Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.

We are hereby submitting our offer in full compliance with the terms and condition of the above NIB No. We have submitted the requisite amount of “Earnest Money” in the form of Bank Guarantee, valid for twelve months.

The tender is uploaded on www.jharkhandtenders.gov.in as per the requirement of the website separately Technical Bid & Financial Bid.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

Annexure-2: Check List for Technical bid

NIB No: 13/JREDA/SHMLS/17-18

S. No.	Particulars	Uploaded Yes / No	Page No.
1	Covering Letter as per Annexure-1 .		
2	Information about the Bidder as per Annexure-3 .		
3	The bidder is registered PV System Integrator or Manufacturing company of SPV cells or PV Modules or Battery or PV System Electronics confirming to relevant National/International Standards (Attach relevant certificates of Industry Department or MNRE).		
4	To indicate the functionality of the firm attach the balance sheet of last three years ending 31.03.2017 of the firm duly certified by statutory Auditor.		
5	Registration certificate of MSME of Jharkhand State (Enclose certificate issued by Industry Department, Govt. of Jharkhand).		
6	IEC/IS certificates for Solar PV Module (Attach relevant certificate).		
7	Test certificate for LED & LED Luminaire from the authorize test centers of MNRE/ NABL		
8	Certificate of Battery (Attach valid certificate as per BIS).		
9	A copy of valid VAT/ TIN registration certificate		
10	Declaration by Bidder as per Annexure-4 .		
11	Average Annual Turnover for last three years ending 31.03.2017 (Attach average annual turnover certificate as per Annexure-5)		
12	Net worth as on 31.03.2017. (Attach proof & Net worth certificate as per Annexure-6)		
13	Details of tender document fee (Bank Draft No. and Date)		
14	The proof of supply of high mast lighting system/ Solar Power Plant in any SNA/Govt. organization/PSU in the last seven years as per Annexure-8 to indicate the quantity already supplied. Attach copy of the order and certificate indicating its successful execution		
15	Details of Earnest money Deposit (Bank Guarantee/DD Number & Date)		
18	Authority Letter for Signing Bid Document & Attending Bid Opening Meeting as per Annexure-7		

**** Please number the pages of the uploaded documents and write it in the box.***

Please ensure:

- i) That all information is provided strictly in the order mentioned in the check list mentioned above.
- ii) Bidders are advised to strictly confirm compliance to bid conditions and not to stipulate any deviation/conditions in their offer. Subsequent to bid submission, JREDA may or may not seek confirmations/clarifications and any offer(s) not in line with Bid conditions shall be liable for rejection.

- iii) Any clarification/confirmation bidder may require shall be obtained from JREDA before submission of the bid. Bidder shall submit complete bidding document including subsequent amendment, modification and revision, duly signed and stamped as a token of having read, understood and accepted all the terms and condition mentioned therein.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

Annexure-3: Information about the Bidding Firm

NIB No: 13/JREDA/SHMLS/17-18

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

SL. No.	Particulars	
1.	Name of the Bidder	
2.	Address of Bidder with Telephone, Fax, email	
3.	Address of the Registered Office	
4.	Address of the works	
5.	GPS Co-ordinate of Registered Office	
6.	GPS Co-ordinate of Factory Campus	
7.	Name & Designation of Authorized Signatory for Correspondence (Attach Power of Attorney as per Annexure-7)	
8.	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Ltd. Co./Public Sector)	
9.	Permanent Account Number (PAN)/TIN (Attach proof)	
10.	Firm's Registration Number (Attach proof)	
11.	GST Number (Attach proof)	
12.	Specify the Item Originally Manufactured by the Bidder (SPV module/Electronics/Battery/LED/Mast)	
13.	Registration Number of the firm/co. (Copy of Registration Certificate issued by Industry Department)	
14.	Details of in-house testing facility (Attach Proof)	
15.	Office/ Dealer and Service network in Jharkhand with TIN No.(Give details)	
16.	Quoted quantity	
17.	Particulars of Earnest Money	
18.	Place where Materials will be Manufactured	
19.	Place where Materials will be Available for Inspection	
20.	Other details and remarks, if any	

Yours faithfully,

(Signature of Authorized Signatory)

Name :

Designation :

Company seal :

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

Annexure-4: Declaration by the Bidder

NIB No: 13/JREDA/SHMLS/17-18

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

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

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

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

Annexure-5:Format For Financial Requirement – Annual Turnover

NIB No: 13/JREDA/SHMLS/17-18

[On the letterhead of Bidding Company]

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi - 834002

Dear Sir,

Sub: Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.

Sir,

**We certify that the Bidding Company had an average Annual Turnover of Rs. -----
----- based on audited annual accounts of the last three years ending 31.03.2017.**

*Authorised Signatory
Statutory Auditor*

(Power of Attorney holder)

(Stamp & Signature)

Date:

Annexure-6: Format for Financial Requirement - Net Worth Certificate

NIB No: 13/JREDA/SHMLS/17-18

[On the letterhead of Bidding Company]

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi - 834002

Dear Sir,

Sub: Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.

Sir,

This is to certify that Net worth of _____ {insert the name of Bidding Company}, as on **31st March 2017** is Rs _____. The details are appended below.

Particulars	Amount (In Rs.)
Equity Share Capital	
Add: Reserves	
Subtract: Revaluation Reserve	
Subtract: Intangible Assets	
Subtract: Miscellaneous Expenditure to the extent not written off and carried forward losses	
Net Worth as on 31 st March 2017	

Authorised Signatory

Statutory Auditor

(Power of Attorney holder)

(Stamp & Signature)

Annexure -7: Format of Power of Attorney for Signing Bid

NIB No: 13/JREDA/SHMLS/17-18

POWER OF ATTORNEY

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

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

as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for **NIB No: 13/JREDA/SHMLS/17-18**, including signing and submission of all documents and providing information / Bids to Jharkhand Renewable Energy Development Agency, representing us in all matters before [Insert Name], and generally dealing with Jharkhand Renewable Energy Development Agency in all matters in connection with our bid for the said Project.

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

For

_____Signature (Name, Designation and Seal)

Accepted by

..... (Signature) (Name, Designation and Seal)

(Name, Title and Address of the Attorney)

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

Annexure-8: Details of Orders Received and Executed in Last 7 Years

NIB No: 13/JREDA/SHMLS/17-18

Details of Orders Received & Executed by the Manufacturer/Supplier for Supply of Solar LED High Mast Lighting System (SHMLS)/ Solar Power Plant to SNA/ Govt. Organization during Last Seven Years.

SL. No.	Name of Agency/ Organization	Purchase Order No., Date & Ordered Qty.	Name of Model	Delivery Schedule	Date of Full Supply with letter no. & date of the performance certificate	Page number of the Work order/ purchase order submitted	Page number of the performance certificate submitted

Yours faithfully,

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

Note:

- (a) Attach Photocopies of Purchase Orders
- (b) Attach Photocopies of Certificate of Satisfactory Performance Issued by Concerned Nodal Agency/PSU/ Govt. Organization
- (c) Separate sheet may be used for giving detailed information in seriatim duly signed with page number. Proof of work order/purchase order and corresponding performance certificate should be submitted/enclosed in the bid. Non submission of the work orders and corresponding performance certificate will be treated as no experience.

Annexure-9: Price Bid

NIB No: 13/JREDA/SHMLS/17-18

Sub: Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.

S. No.	Description	Max. Quantity	Offered Quantity	Offered Price (in Rs.)	
				In Figure	In Words
1	2	3	4	5	6
1	Solar PV Module, 4X 200 Wp	30			
2	Battery, 12V, 480 Ah	30			
3	White Light Emitting Diode (W-LED) 4*36 Watt(LED +Driver)	30			
4	Pole with battery box	30			
5	Installation of the system including fixing of pole in the ground.	30			
6	Any other cost/ charges.	30			
7	CMC (10% of the total cost of system)	30			
Total					

- 1 Above quoted price for SHMLS are complete in all respect as per Technical Specifications inclusive of all Central/State/Local taxes & duties, packing, forwarding, transit insurance, loading & unloading, transportation & other charges etc. FOR destination at any site in Jharkhand and inclusive of installation, testing, commissioning, performance testing and training.
- 2 Certified that rates quoted for SHMLS are as per specifications, terms & conditions mentioned in the bid document.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

(This bid Performa must be submitted duly signed in case separate sheet is submitted)

Annexure-10: Format for Submitting Bank Guarantee for Earnest Money Deposit

NIB No: 13/JREDA/SHMLS/17-18

(To be submitted in Rs. 100/- Non-Judicial Stamp Paper to be purchased in the name of the issuing bank)

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi - 834002.

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

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

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

We (Bank) hereby
agree and undertake to pay you on demand the said amount of Rs.
..... (Rupees only) without any
protest or demur in the event the Supplier/Tenderer after submission of his tender, resiles from or
withdraws his offer or modifies the terms and conditions thereof in a manner not acceptable to you or
expresses his unwillingness to accept the order placed and/or letter of intent issued on the
Supplier/Tenderer for the work under "Notice Inviting Bid Ref. No.:" **NIB No:**
13/JREDA/SHMLS/17-18

Your decision as to whether the Supplier/Tenderer has resiled from or has withdrawn his offer or has
modified the terms and conditions thereof in a manner not acceptable to you or has expressed his

unwillingness to accept the order placed and/or Letter of Intent issued by you on the Supplier/Tenderer for the work under “Notice Inviting Bid Ref. No. : **NIB No: 13/JREDA/SHMLS/17-18**

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

Signed and Delivered

For and on behalf of Bank.

(Banker's Name)

Name of Bank Manager:

Address

.....

Annexure-11: Contact Person for the NIB

NIB No: 13/JREDA/SHMLS/17-18

[On the letterhead of Bidding Company]

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

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

Annexure-12: Format for Quarterly O&M and CMC Report

NIB No: 13/JREDA/SHMLS/17-18

[On the letterhead of Bidding Company]

To,

The Director,
Jharkhand Renewable Energy Development Agency
3rd Floor, S.L.D.C. Building,
Kusai Colony, Doranda,
Ranchi – 834002.

Dear Sir,

Sub: Design, Supply, Installation, Testing & Commissioning of 75 nos. LED Based Solar High Mast Lighting System including 5 years Comprehensive Maintenance Contract (CMC) at Public places & Government Campuses in the state of Jharkhand.

Sir,

Date of Installation.....

JREDA Dispatch Order No..... Dated.....

Place of Supply.....

Name of Technicians:.....

S. N.	Place of Installed System	System Details	Date of Site Visit/CM C	Fault observation	Fault repaired	Status of the system
		Module No.				
		Battery No.				
		Charge Controller No.				
		Luminaire				

(Signature of Consignee)

Name:

Designation:

Seal:

Signature of JREDA representative

Signature of Agency with Seal