

Bid Specifications
For
Solar Street Lighting System
(LED & CFL Based)
Under
Solar Photovoltaic Programme

For Financial Year 2010-2011

Sponsored by
Ministry of New and Renewable Energy
Government of India
&
Government of Jharkhand



Jharkhand Renewable Energy Development Agency (JREDA)

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1. Bid Details

SI	Description	Details
1.	Notice Inviting Bid (NIB) No.	JREDA/SPV/01/SSLS (LED and/or CFL) /2010-11 dt. 04.08.2010
2.	Scope of work	<p>Bids are invited from reputed Manufacturers of India for Manufacturing, supply, installation, testing & commissioning including 5 years Comprehensive Maintenance Contract (CMC) of Indigenous LED & CFL Based Solar Street Lighting Systems (SSLs) under Solar Photovoltaic Program for Jharkhand Renewable Energy Development Agency (JREDA) on turnkey basis during 2010-11. The quantity required is 666 Nos. LED based and 4100 Nos. CFL based Solar Street Lighting Systems (SSLs).</p> <p>The quantity mentioned above is tentative & is subject to increase or decrease depending on the actual requirement at the time of placing order and resources available</p>
3.	Place of issue & submission of bid documents and address for communication	<p>Jharkhand Renewable Energy Development Agency (JREDA) Plot No. 328/B, Road No. 4, Ashok Nagar, Ranchi, PIN 834 002, Jharkhand. Phone No. : 0651-2246970; Fax No. : 0651-2240665 Website : www.jreda.com , E-mail : info@jreda.com</p>
4.	Period of sale of bid document	<p>Date : From 4th August 2010 Time : From 10:30 A.M. to 5:00 P.M. on all working days</p>
5.	Last date & time of submission of bids	<p>Date : 26th August 2010 Time : till 12:00 Noon</p>
6.	Date & time of opening of Part - I (Technical Bids)	<p>Date : 26th August 2010 Time : at 12.30 P.M.</p>
7.	Date & time of opening of Part- II (Financial Bids)	Technically qualified bidders will be communicated the date & time of opening of Part-II (Financial Bids) by JREDA
8.	Cost of bid document (Non-refundable)	<ul style="list-style-type: none"> ➤ For General Category : Rupees Ten Thousand ➤ For SSI units registered in Jharkhand State : Rupees Five Thousand ➤ For SSI units registered with Govt. of Jharkhand & NSIC : Nil
9.	Earnest Money (Refundable)	<ul style="list-style-type: none"> ➤ For General Category: Rs.4,00,000/-(Rupees Four Lacs) & Rs.2,00,000/-(Rupees Two Lacs) for minimum quantity of 200 nos. and 100 nos. for CFL based and LED based SSLs respectively and Rs.1,00,000 (Rupees One Lakh) & Rs.50,000 (Rupees Fifty Thousand) for every additional quantity of 100 nos. of CFL based and 50 nos. LED based SSLs quoted for supply. ➤ For SSI units registered in Jharkhand State: Rs.2,00,000/-(Rupees Two Lacs) & Rs.1,00,000/-(Rupees One Lac) for minimum quantity of 200 nos. and 100 nos. for CFL based and LED based SSLs respectively and Rs.50,000 (Rupees Fifty Thousand) & Rs.25,000 (Rupees Twenty Five Thousand) for every additional quantity of 100 nos. of CFL based and 50 nos. LED based SSLs quoted for supply. <p>For SSI units registered with Govt. of Jharkhand & NSIC: Nil</p>

10.	Minimum lot size	<p>The minimum quantity quoted should be 200 nos. for CFL based and 100 nos. for LED based SSLs.</p> <p>Bidders may also submit their offer for additional quantity in multiples of 100 nos. for CFL based and 50 nos. for LED based SSLs respectively.</p> <p>Bidders may quote for either CFL based SSLs or LED based SSLs or Both.</p> <p>For SSI Units, the quoted quantity should not be more than their annual production capacity.</p>
11.	Time of completion	<p>Within Three (3) months from the date of order.</p>
12.	Validity of offer	<p>The offer shall remain valid up to 180 days from the due date of submission of offer.</p>
13.	Validity of earnest money	<p>The earnest money shall be submitted by the bidder in the form of bank guarantee from any Nationalized/Scheduled bank. This bank guarantee shall remain valid for 12 months from the last date of submission of bids.</p>

2. Notice Inviting Bid

NIB No. : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11

Date : 04.08.2010

To,

M/s

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Sub : Manufacturing, Supply, Installation, Testing & Commissioning, including 5 Years Comprehensive Maintenance Contract (CMC) of Indigenous LED Based and/or CFL Based Solar Street Lighting Systems (SSLs) under Solar Photovoltaic Program for Jharkhand Renewable Energy Development Agency on Turnkey basis during the Year 2010-11

Dear Sir/Madam,

Jharkhand Renewable Energy Development Agency (JREDA), Ranchi has pleasure in inviting offers from eligible Indian bidders for the above work with your best binding price offer as per our specifications and terms & conditions mentioned in the bid document. Salient features of the bid document are given below:

1. Bid Document

1.1 This bid document comprises of total 16 chapters. In addition, any other documents/ instructions/amendments/revisions issued by JREDA to the bidder till the due date of opening of the bids shall also be deemed to be integral part of the bid document. Failure to furnish all the information as per the bid document in every respect will be at the bidder's risk.

2. Cost of Bid Document

2.1 Bid document can be purchased from JREDA office by producing a Demand Draft drawn in favour of "Director, JREDA" on any Indian Nationalized Bank/Scheduled Bank, payable at "Ranchi" of requisite value, as applicable, during the time and period mentioned in chapter 1 (Bid Details).

2.2 Bidders can also download the bid document from JREDA website (www.jreda.com) and submit the cost of the bid document of requisite value, as applicable along with Part – I (Technical Bid).

2.3 Bid applications without the cost of bid document will be rejected.

3. Earnest Money

- 3.1 General bidder & SSI Unit registered with Govt. of Jharkhand shall submit in Part – I (Technical Bid) the earnest money in the form of bank guarantee of requisite value as mentioned in chapter 1 (Bid Details). The format for the bank guarantee is given in chapter 11 (Proforma - 6). The bank guarantee shall be made in favour of “Director, JREDA” payable at Ranchi from any Indian Nationalized bank/Scheduled bank.
- 3.2 This bank guarantee shall remain valid for 12 months from the last date of submission of bids.
- 3.3 Bidders seeking concession/exemption from submission of earnest money, will have to submit an attested photocopy of relevant SSI unit certificate issued from the Govt of Jharkhand and from NSIC (if applicable), in Part – I of the bid application.
- 3.4 Bidders failing to submit earnest money or submitting relevant SSI & NSIC registration certificates from the Govt of Jharkhand and from NSIC (as the case may be), will be rejected.
- 3.5 The request for adjustment of earlier dues in place of earnest money will not be entertained.
- 3.6 The earnest money shall be returned to all unsuccessful bidders, **within thirty days** from the date of placement of LOI/LOA to the successful bidder(s).
- 3.7 The earnest money shall be forfeited if –
 - a. Any bidder withdraws his bid or resiles from his offer during the validity period.
 - b. The successful bidder fails to furnish his Acceptance of the Order within fifteen days of placement of LOI/LOA by JREDA.
 - c. The bidder fails to successfully complete the work within the stipulated time frame. Delay in completion due to extreme and unavoidable situations will have to get approved by Director, JREDA. This approval will also have a cut-off date by which the entire work will have to be completed.

4. Security Deposit / Performance Guarantee

- 4.1 Successful general bidders shall submit a security deposit 10 % in the form of bank guarantee of the allotted work order value on or before 15 days from issuing work order.
- 4.2 Successful bidders registered as SSI unit with Govt. of Jharkhand shall submit a security deposit 5 % in the form of bank guarantee of the allotted work order value on or before 15 days from issuing work order.
- 4.3 Successful bidders registered as SSI unit with Govt. of Jharkhand as well as with NSIC shall submit a security deposit of 20 % of 10 % in the form of bank guarantee of the allotted work order value on or before 15 days from issuing work order.
The Security Deposit shall be refunded after expiry of 90 days from the actual date of installation & commissioning.

5. Submission of Bids

- 5.1 Bidders are advised to submit their bids strictly based on the specifications, terms and conditions contained in the bid document and subsequent revisions/amendments, if any.
- 5.2 The bid shall be prepared and submitted by typing or printing in English with indelible black ink on white paper in consecutively numbered pages duly signed by the authorized signatory with company seal affixed on each page. Any part of the bid, which is not specifically signed by the authorized signatory and not affixed with company seal, shall not be considered for the purpose of evaluation.
- 5.3 Original copy of bid document, amendments/revisions to bid document, including minutes of meeting(s), issued by JREDA, if any, shall be signed and submitted along with the bid.
- 5.4 All the Proformas must be on the bidder's official letterhead. Any change in wording of the Performa will lead to rejection of the bid application.
- 5.5 The offer shall contain no erasures or overwriting except as necessary to correct errors made by bidder. Such corrections, if any, shall be initialed by the person signing the offer.
- 5.6 **Original copy of Bid Document should be submitted in Hard Bond or Spiral Binding.**

6. Mode of Submission of Bids

- 6.1 The Part – I (Technical Bid) and the Part – II (Financial Bid) should be sealed in separate envelopes and both these envelopes should be sealed in a third envelope. The Part – II (Financial Bid) of only such organizations would be opened who qualify in the Part – I (Technical bid).
- 6.2 The Part – I (Technical Bid) should be sealed in an envelope super scribed (i) **"NIB No : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11"**, (ii) "Part – I (Technical Bid)", (iii) Name and address of the contact person of the bidding firm, and (iv) should be addressed to Director, JREDA. This envelope should contain the following :
 - (i) Cost of bid document (for the bidders who have downloaded the bid document from JREDA web site) or copy of demand draft/money receipt if purchased from JREDA office.
 - (ii) Original earnest money in the form of bank guarantee of requisite value (in Proforma – 6).
 - (iii) Copy of registration certificate of the firm.
 - (iv) For availing concession/exemption in submission of cost of bid document and earnest money by SSI Unit registered in Jharkhand, bidder should submit attested copy of relevant SSI registration certificate from Govt of Jharkhand and from NSIC.
 - (v) Properly filled, signed & stamped Proforma - 1, Proforma – 2, Proforma – 3, Proforma – 4 and Proforma – 5.
 - (vi) Letter of acceptance to furnish the information in Proforma – 7, Proforma – 8, if the bidder is declared successful bidder and is given LOI/LOA by JREDA.
- 6.3 Part – I (Technical Bid) should not contain price of any item. Such cases, even if found any where, shall not be given any cognizance.

- 6.4 Part – I (Technical Bid) should be submitted in original plus 1 copy (1+1)
- 6.5 The Part – II (Financial Bid) should be sealed in an envelope super scribed (i) “NIB No. :JREDA/SPV/01/SSLS (LED and/or CFL)/2010-11”, (ii) “Part – II (Financial Bid)”, (iii) Name and address of the contact person of the bidding firm, and (iv) Should be addressed to Director, JREDA. This envelope should contain the following:
- (i) It should contain only Performa - 10 duly filled-up in both figures and words and signed with stamp by authorized signatory of the bidder.
 - (ii) In case of any contradictions between the prices mentioned in figures and words, the prices mentioned in words shall be considered final. Also, in case of any arithmetical error in regard to the total amount and individual rates, the individual rates shall be taken as final and the total amount shall be adjusted accordingly.
- 6.6 Part – II (Financial Bid) should be submitted in original only (1+0).
- 6.7 Both, Part – I and Part – II of the bid document should be sealed in a third envelope. The third envelope should be sealed and super scribed (i) “NIB No. : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11”, (ii) "Offer for Supply & CMC of SSLs under Solar Photovoltaic Program"., (iii) Name and address of the contact person of the bidding firm, and (iv) Should be addressed to Director, JREDA.

6.0 Scope of Work

- 6.1 The scope of work shall be as indicated in the Bid Details.
- 6.2 JREDA reserve absolute rights to distribute the total number of SSLs required to be supplied under the NIB amongst any number of bidders, in the way it deems fit.
- 6.3 JREDA reserves the right to amend the scope of work, accept or reject any or all the offers/bids, in part or in full or cancel/withdraw the invitation for bids without assigning any reasons whatsoever and in such case, the bidder/intending bidder shall have no claim arising out of such action.
- 6.4 The Bidder shall carefully check the specifications and shall satisfy himself regarding the technical requirement and completeness of the equipment/system.
- 6.5 Bidder may submit their offer for minimum lot size defined or additional quantities.

7.0 Price

- 7.1 The Bidder shall quote price as per Proforma - 10. Price quoted shall be firm & binding and shall not be subject to any variation whatsoever, on any account except for statutory variation on taxes & duties during contractual completion period.
- 7.2 The price should be inclusive of all taxes, duties, levies, etc. as on date.

8.0 Terms of Payment

- 8.1 Subject to any deductions, which JREDA may be authorized to make under the terms of the order, the contract price shall be payable as per general clauses of contract enclosed.

9.0 Authority of Person Signing the Documents

- 9.1 Authorization letter as per Proforma – 2 with the seal of the company for the person signing the bid document or attending the bid opening meeting should be furnished.
- 9.2 A person signing the bid document or any document forming part of the bid document shall be deemed to warrant that he has authority to bind such offer/ document and if on enquiry it appears that the person signing had no authority to do so, JREDA may, without prejudice to other civil and criminal remedies, cancel the bid/contract and hold the signatory liable for all costs and damages.

10.0 No Claim or Compensation for Submission of Tender

- 10.1 The bidder whose bid is not accepted shall not be entitled to claim any costs, charges, expenses and incidental incurred by him through or in connection with his submission of bid, even though JREDA may decide to withdraw the notice inviting bid.

11.0 Eligibility and Qualification Criteria

- 11.1 The bidder shall meet the following requirements :

For General / SSI Units registered with Govt. of Jharkhand/SSI Units registered with Govt. of Jharkhand and NSIC Bidders

- (i) The bidder should be a reputed Manufacturer of SSLs who manufactures at least one of the major sub systems (namely, PV Module or Storage Battery or Electronics) used in the SSLs.
- (ii) The bidder should have adequate facilities for testing of SSLs.
- (iii) The bidder shall furnish registration certificate clearly indicating that they are manufacturers of SSLs including PV Module/Storage Battery/Electronics as applicable.
- (iv) The bidder shall submit list of testing facilities available with it along with photographs of the testing facilities.
- (v) The bidder must be in possession of valid test report for the SSLs from any of the following test centers :
 - Solar Energy Centre Gwalpahari – Gurgaon, Haryana (SEC)
 - Electronics Regional Test Laboratory (East) Bidhan Nagar, Kolkata (ERTL)
 - Central Power Research Institute, Bangalore (CPRI)
 - The test certificates should conform that SSLs are as per MNRE specifications 2009-10 for CFL based and 2008-09 for LED based, which is already available on MNRE website. Test Certificates issued on or after the publication of latest MNRE specifications would be considered valid.
- (vi) All test centers should quantify all the measured parameters with appropriate remarks. At the end of the report test center should provide a note on qualification or disqualifications of the sample with adequate reasons.

- (vii) The bidder should have supplied solar photovoltaic systems of the value of at least Rupees Two Crores to any State Nodal Agency/ Govt. Organization during any one of the past three financial years (i.e. 2007-08, 2008-09, and 2009-10) and supplies against such work order should have completed satisfactorily as certified by the State Nodal Agency/ Govt. Organization concerned.
- (viii) The bidder shall submit self attested photocopies of purchase orders/contracts from the State Nodal Agencies / Government organization concerned. Non-submission of above document may result in rejection of bid.
- (ix) The bidder shall submit attested certificate of satisfactory completion of work by a Gazetted officer/State Nodal Agencies for which the bidder has done work and mentioned in this bid document. Non-submission of above document may result in rejection of bid.
- (x) The bidder should have supplied, installed and commissioned minimum 200 nos. SSLs to any State Nodal Agency/ Government organization and which should have worked satisfactorily for a minimum period of 1 year as on the date of submission of bid.
- (xi) The bidder should have registered office in Jharkhand as per JVAT Act. - 2005 and should have local service setup for smooth running of CMC.

12.0 Validity of Offer

- 12.1 Unless otherwise specified, the bidder shall keep his tender valid initially for a period of 180 days from the due date of submission of the offer.

13.0 Other Terms & Conditions

- 13.1 For availing any concession in the cost of bid document or earnest money, the SSI Unit bidder shall have to furnish attested copies of valid SSI registration certificate (all pages) issued by the Govt. of Jharkhand and/or from NSIC clearly indicating validity & monetary limit, as applicable.
- 13.2 For availing any concession in the cost of bid document or earnest money, the SSI Unit bidder shall have to furnish a certificate issued on or after 1st April 2008 from Department of Industries, Govt. of Jharkhand and/or NSIC, Regional Office, Jamshedpur, as applicable, that the unit is functional mentioning the installed capacity of the unit to produce solar device per annum. The annual production capacity certified above shall be considered while placing the order.
- 13.3 Insertion, post-script, addition and alteration shall not be recognized unless confirmed by bidder's signature and stamp.
- 13.4 Incomplete tender or tenders not submitted as per requirement as indicated in the NIB are likely to be rejected.

- 13.5 Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation.
- 13.6 If at any time any of the documents/information submitted by the bidder is found to be incorrect, false or untruthful, the bid and/or the resultant order may be summarily rejected /cancelled at the risk of the bidder.
- 13.7 Failure to furnish all information and documentary evidence as stipulated in the bid document or submission of an offer that is not substantially responsive to the bid document in all respects shall be summarily rejected.
- 13.8 All bids will be received in duly sealed cover within the due date and time. Bids received after the due date and time is liable for outright rejection.
- 13.9 JREDA reserves the right to reject part or whole of the bid/order without assigning any reason thereof postpone the date of receipt and opening of the bids or cancel the bid without bearing any liability, whatsoever, consequent upon such decision.
- 13.10 No postal transaction shall be entertained for obtaining bid documents.
- 13.11 Issuance of bid documents shall not construe that the bidders would be automatically considered qualified.
- 13.12 Attestation of various documents enclosed along with the offer must be done by a Gazetted Officer or Notary Public.
- 13.13 Bid documents are not transferable.

3. General Terms & Conditions

1.0 Scope of Work

- 1.1 The Scope of work for LED and/or CFL Solar Street Lighting System (SSLS) includes Manufacturing, shop testing, packing & forwarding, transportation, transit insurance, supply, installation, testing & commissioning including 5 years Comprehensive Maintenance Contract (CMC) of SSLS complete 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 (door delivery) basis across the State of Jharkhand including, demonstration of performance and training at all sites located within 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.

2.0 Opening and Evaluation of Bids

- 2.1 The Part – I (Technical Bids) and Part – II (Financial Bids) will be opened on the date and time mentioned in the Bid Details in the office of the Director, JREDA at Plot No. 328/B, Road No. 4, Ashok Nagar, Ranchi in the presence of bidders or their authorized representatives who choose to attend the meeting. The representative should produce authorization letter to attend the bid opening meeting in the Proforma - 2. The representative who does not produce such authorization will not be allowed to attend the bid opening meeting.
- 2.2 JREDA, if required, may at its discretion obtain clarifications on offers by requesting clarifications from any or all the bidders at any time prior to Part – II (Financial Bid) opening. Such request for clarification and the response shall be in writing.
- 2.3 JREDA shall examine whether the bid is complete in all respects and conform to the stipulated requirement of the technical specifications and tests reports. The bid having material deviation shall be rejected as being non-responsive.
- 2.4 The Part –II(Financial Bid) of only those bidders, whose Part – I (Technical Bid) are found acceptable after evaluation, will be opened and evaluated. In case of deviation in the date and time of opening of the Part – II (Financial Bid) from what is given in the Bid Detail, the date & time for opening of the Part – II (Financial Bid) will be uploaded on JREDA website. Bidders are requested to visit the website (www.jreda.com) regularly and keep themselves informed.
- 2.5 The Part – II (Financial Bid) will be opened in the office of Director, JREDA at Plot No. 328/B, Road No. 4, Ashok Nagar, Ranchi 834002, in the presence of eligible bidders or their authorized representative. The authorized representative will be allowed to attend the price bid opening on production of authorization letter.
- 2.6 The prices shall be evaluated for LED based & CFL based Solar Street Lighting System (SSLS) on the Landed Price (P) (inclusive of all taxes, duties, freight, insurance, etc) for SSLSs and CMC.

- 2.7 The bidders shall be ranked L1, L2, L3as per the Landed Price (P). The Purchase Committee of JREDA will have the discretion to divide the quantity to be supplied among any number of technically qualified bidders at L1 rate. The work order will be issued subject to the acceptance of the bidders to supply at L1 rate.
- 2.8 The rate quoted by the manufacturer located outside the state of Jharkhand shall have to include VAT as applicable in Jharkhand.
- 2.9 JREDA, if required, may at its discretion extend the scheduled date of opening of Part – II (Financial Bid).
- 3.0 Award of Contract/Work Order**
- 3.1 The contract/work order shall be awarded to the bidder whose Part – I (Technical Bid) was acceptable and who is selected by the Purchase Committee of JREDA to undertake the work at L1 rate.
- 4.0 Quantity of Supply**
- 4.1 The quantity required as given in the Bid Details of Notice Inviting Bid is tentative and is subject to increase or decrease depending upon the actual requirement at the time of placing order and resources available.
- 4.2 Bidders may submit their offer for minimum lot size and additional quantities as defined in the Bid Details.
- 4.3 In case any bidder offers less than the minimum lot size their offer will be rejected.
- 5.0 Effective Date of Contract**
- 5.1 The effective date of commencement of execution of the order by the selected contractor shall be the date of issue of the LOI/LOA/Purchase Order whichever is earlier.
- 6.0 Contract Price**
- 6.1 The total contract price & rates of SSLs and 5 years CMC in full and complete set including SPV module, control electronics, battery, mechanical components, etc. should be quoted in Proforma -10. The price shall be for the total scope as defined in this document.
- 6.2 The contract price for supply of items in full & good condition at FOR Site/Stores site (door delivery basis) to various consignees across the State of Jharkhand, include transit insurance. Contract Price also includes all charges towards packing & forwarding, inspection, insurance and freight including door delivery charges. Contract Price is also inclusive of excise duty, central sales tax, Jharkhand VAT on the finished items, turnover tax (TOT)/octroi, professional tax, entry tax, etc. as applicable for the supplies.
- 6.3 During the period of the contract, JREDA may order addition/deletion in quantities which the bidder shall comply. The adjustment in Contract Price shall be made at the same unit rate as per Price Schedule (Proforma – 10).

7.0 Terms of Payment

7.1 Subject to any deductions which JREDA may be authorised to make under the terms of the order, the Contract Price shall be payable as given below :

(a) 80% of the Contract Price for each bill shall be paid against delivery of goods in full and in good condition.

(b) 10% of the Contract Price for each bill shall be paid against installation, testing & commissioning after submission of following documents.

1. Certificate of delivery of the number of SSLs received by the consignee as specified in Proforma – 8.
2. Location-wise detail of the module, battery & charge controller utilization report of SSLs installed under the SPV Program as specified in Proforma-9
3. Commercial invoice of the supply made in triplicate.
4. Copy of receipted delivery challan/transportation challan/lorry receipt.
5. All payments shall be released by JREDA within 30 days that shall be reckoned from the date of receipt of all the documents in complete as stipulated against each payment. Only submission of delivery challan/transportation challan/lorry receipt will not be sufficient for the release of payment by JREDA.
6. All payments shall be released by JREDA through account payee cheque issued in favour of the Supplier and payable at Ranchi.
7. All the payments shall be paid in the name of only successful bidder not to anyone else.

(c) Rest 10% of the Contract Price for each bill shall be paid in Five Years (2% per year) against Satisfactory performance of the systems after submission of quarterly report of CMC undertaken by the manufacturer

8.0 Income Tax

8.1 Without prejudice to the obligations of the Supplier under law, any Income Tax, which JREDA may be required to deduct by law/statute, shall be deducted at source and shall be paid to the Income Tax authorities on account of the Supplier. JREDA shall provide the Supplier a certificate for such deduction of tax.

9.0 Statutory Variations in Taxes and Duties

9.1 The adjustment in the Contract Price towards imposition of new taxes or abrogation of existing taxes due to statutory variation shall be applicable only if the new tax is enacted or existing tax is abrogated within contractual delivery/execution period. For any upward variation due to enactment of new tax or abrogation of existing tax after contractual delivery/execution period, adjustment in the Contract Price shall not apply, although for any downward variation, JREDA shall make necessary adjustment in the rate of the items.

9.2 The Supplier shall bear and pay all liabilities in respect of statutory variations in taxes and duties and imposition of new taxes and duties that may be imposed after the contractual delivery/execution dates, as originally stipulated, in case the delivery dates are extended due to reasons attributable to Supplier.

10.0 Agreement

10.1 The Suppliers have to enter into an agreement within two weeks, in the office of the Director, JREDA in prescribed format before commencement of supply/services.

11.0 Inspection of the Factory and Tests

11.1 JREDA reserves the right to inspect the manufacturer's works/factory to ascertain the capability/availability of necessary equipment & infrastructure required for manufacture of the item offered before opening of the Part-II (Financial Bid) of the bidders.

11.2 JREDA shall have access and right to inspect the work or any part thereof at any stage.

11.3 JREDA shall have the right to inspect and test the goods to confirm their conformity to the technical specifications after delivery of goods to consignee.

11.4 Successful bidder shall inform JREDA at least 25 days in advance of schedule dispatch.

12.0 Dispatch Instructions

12.1 All items/equipments shall be subjected to pre-dispatch inspection by JREDA or its authorized representative(s) as per relative standards/provisions approved by JREDA before dispatch of items.

12.2 The equipment shall be dispatched as per the detailed "Dispatch Instructions" which will be required to be followed strictly at the time of dispatch. However, equipment shall be dispatched only after receipt of "Dispatch Clearance" from JREDA after inspection and acceptance of the equipment is over. No consignment shall be dispatched without receipt of dispatch clearance from JREDA.

13.0 Road Permit

13.1 Road permits shall be issued from the bidders Registered Office or Manufacturing Unit (as indicated by the bidder in the bid) to FOR in Jharkhand. Request for road permit from the place other than above will not be entertained.

14.0 Transit Insurance

14.1 Transit Insurance shall be arranged by the Supplier for his total supplies. In case of any damage/loss/pilferage/non-delivery during transit, the Supplier shall lodge the claim and settle the claim with the insurance agency. The Supplier shall also arrange replacement of the damaged, lost/pilfered items expeditiously pending settlement of commercial implications with insurance agency, if any, so as not to hamper the working of the system. The resultant loss if any due to failure of Supplier/Sub-supplier to comply with the above shall be to the account of the Supplier.

15.0 Training Program, After Sales Service and Availability of Spare Parts

15.1 The responsibility of organizing training program for SSLs 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 SSLs. Printed leaflet/literature should be made available in Hindi by the Supplier regarding the operation and maintenance of their SSLs.

15.2 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 guarantee period.

16.0 Completion Schedule

16.1 The delivery of goods at FOR destination in full as per the terms and conditions of the contract/order shall be completed within **Three (3) months** from the date of issue of the LOI or LOA whichever is earlier.

17.0 Guarantee Period

17.1 The manufacturer must provide guarantee which include servicing & replacement guarantee for parts and components (such as battery, electronics, lamps etc) of Solar Street Lighting Systems for 5 (five) years. For PV modules, the replacement guarantee is for 15 (Fifteen) years from the date of commissioning the SSLs at site & demonstration of performance to the consignee/JREDA.

17.2 The guarantee card to be supplied with the system must contain the details of the system supplied as given in the Proforma - 7. The manufacturers can also provide additional information about the system and condition of guarantee as necessary.

17.3 Supplier shall without prejudice to any other clauses of the order repair/replace the defective parts and restore the system to satisfactory working/performance within 7 days of intimation of fault without any additional cost to JREDA within the period of guarantee.

18.0 Assignment/Sub Letting/Pre Bidding Tie Up

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

18.2 In the event the Supplier contravenes this condition, JREDA reserves the right to reject the equipment/work sub-contracted and procure the same from elsewhere at Supplier's risk and cost. The Supplier 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.

18.3 In case, the installation & commissioning and CMC is planned to be carried out in collaboration with other party, the bidder has to sign MoU with the party on a Non-judicial stamp paper of value not less than Rs. 100/- and submit a copy of the MoU along with the bid. The MoU shall clearly indicate division of scope of work between the prime bidder and his sub-vendor. However, the total responsibility of work will remain with the prime bidder.

19.0 Liquidated Damages for Delay in Completion

- 19.1 The completion period for the assignment must carefully be worked out and all resource & work planning is to be done accordingly with flexibility for adjustments.
- 19.2 If the Supplier fails in the due performance of the contract to deliver and commission any part of the equipment or complete the work within the scheduled date for any reason other than due to Force Majeure conditions or any extension thereof granted to him by JREDA, he shall be liable to pay to JREDA as pre-agreed liquidated damages but not by way of penalty on account of delayed successful commissioning, a sum equal to ½% of total contract value per week of such delay, or part thereof, subject to maximum of 5% of the Total Contract Value.
- 19.3 The liquidated damages for delayed completion shall be recovered from the Supplier's Bill/Bank Guarantee deposited as earnest money.
- 19.4 Deductions/payment of liquidated damages shall in no way relieve the Supplier from his contractual responsibility to complete the works.

20.0 Cancellation of Order

- 20.1 JREDA will be at liberty to terminate in part or full the awarded contract without prejudicing its rights and affecting the obligations of the Contractor by giving seven (7) days notice in writing in the following events :
- (a) If the Supplier is found defaulter for delayed supply or failure to deliver satisfactory performance or supply of substandard materials pursuant to NIB conditions.
 - (b) If the Supplier/Vendor fails to comply with the provision(s) of the contract including the responsibilities to fulfill the 5 years comprehensive maintenance contract as per the provisions mentioned in this bid document.
 - (c) If the Supplier/Vendor is involved in any action of moral turpitude.

21.0 Arbitration

- 21.1 All disputes or differences, whatsoever, arising between the parties out of or in relation to the construction, meaning and operation or effect of this contract or breach thereof shall be settled amicably.
- 21.2 If, however, the parties are not able to resolve them amicably, the same shall be settled by arbitration in accordance with the Rules of Arbitration of the Indian Council of Arbitration and Conciliation & Arbitration Act 1996 and the award in pursuance thereof shall be binding on the parties.
- 21.3 The venue of arbitration proceeding shall be within Jurisdiction of Court of Law at Ranchi only.
- 21.4 Work under this contract shall be continued by the Supplier during the arbitration proceedings, unless otherwise directed in writing by JREDA or unless matter is such that the work cannot possibly be continued until the decision of the Arbitrator is obtained.

22.0 Force Majeure

- 22.1 Should at any time during the continuance of the contract the performance in whole or in part of any obligations by either party under this contract be held up by reasons of any war, hostility, acts of foreign enemy, civil commotion, sabotage, fires, floods, earthquakes, explosions, epidemics, cyclones, quarantine restrictions, Governmental regulations, law & order and other proclamation etc. (hereinafter referred to as "Events") then, provided notice of the happening of any such eventuality is given by either party to the other within 10 days from the date of occurrence thereof neither party shall, by reasons of such eventuality, be entitled to terminate this contract, nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and the work under this contract shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exist.
- 22.2 Should one or both the parties be prevented from fulfilling their contractual obligations by a state of force majeure, lasting continuously for a period of at least four (4) weeks, the two parties should consult each other regarding the further implementation of the contract with the provision that if no mutually satisfactory arrangement is arrived at within a period of 2 weeks from the expiry of 4 weeks referred to above, the contract shall be deemed to have expired at the end of the aforesaid 2 months. Such expiry of the contract will not relieve the parties from the obligations to reach agreement regarding winding up and financial settlement of the contract.
- 22.3 The above mentioned force majeure events shall not include constraints, which could prudently be foreseen like shortage of power, non-availability of raw materials, difficulties in making transport arrangement, break down of machines, strikes, lock outs, etc.
- 22.4 The above-mentioned force majeure conditions/clause shall also apply in the works of sub-contractors/suppliers of the contractor.
- 22.5 However, the Supplier shall not be liable for liquidated damages or termination/cancellation of order/contract if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of force majeure.

4. Technical Specification

(A) Solar Street Lighting System (LED Based)

1.0 Definition

1.1 Light Emitting Diode (LED) is a p-n junction device which emits light when forward electric current passes through it. A LED based solar street lighting system aims at providing solar electricity for operating LED lights for specified hours of operation per day. The broad performance specifications of a White Light Emitting Diode (W-LED) light source based solar street lighting system are given below.

2.0 Technical Specification

2.1 The White LED Based solar street lighting shall be of indigenous make and should conform to the following specifications:

BROAD PERFORMANCE PARAMETERS

Light Source	White Light Emitting Diode (W-LED)
Light Out put	White colour (colour temperature 5500°-6500° K) minimum 15 LUX when measured at the periphery of 4 meter diameter from a height of 4 meter. The illumination should be uniform without dark bands or abrupt variations, and soothing to the eye. Higher light output will be preferred.
Mounting of light	Minimum 4 metre pole Mounted
PV Module	45 Wp under STC, measured at 16.4 V at load. Module Voc minimum of 21V
Battery	Tubular Lead acid or gel type VRLA, 12 V- 40 AH @ C/10, Max DoD 75%
Electronics	Min 85% total efficiency
Average duty cycle	Dusk to dawn
Autonomy	3 days (Minimum 42 operating hours per permissible discharge)

3.0 Duty Cycle

3.1 The LED solar street lighting system should be designed to operate for dusk to dawn, under average daily insolation of 5.5 kWh /sq.m. on a horizontal surface.

4.0 LIGHT SOURCE

4.1 The light source will be of white LED type. Single lamp or multiple lamps can be used. Wider view angles of a minimum of 120° or more. **The luminous performance of individual LED used should not be less than 90 lumen/watt when measured luminaire as whole.** The colour temperature of white LEDs used in the system should be in the range of 5500° K – 6500° K. Use of LEDs which emits ultraviolet light will not be permitted.

4.2 The light output from the white LED light source should be constant through out the duty cycle.

4.3 The lamps should be housed in an assembly suitable for outdoor use. **The temperature of LED should not increase more than 15° above ambient temperature. This condition should be compiled even after two hours of operation at its maximum operation voltage(i.e. just before over-voltage cut-off).**

4.4 The make, model number, country of origin and technical characteristics of white LEDs used in the lighting system must be furnished to the test centers and to the buyers. In absence of this data the solar street lighting system will not be tested by the test center.

5.0 Battery

5.1 Tubular Lead acid or gel type VRLA battery should conform to latest BIS standards. A copy of the test certificate for the battery (including its make, country of origin and model number) used in the system should be provided to the test center.

5.2 At least 75 % of the rated capacity of the battery should be between fully charged & load cut-off conditions

5.3 The battery will have a minimum rating of 12V, 40Ah (at C/10) discharge rate.

6.0 Electronics

6.1 The total electronic efficiency of DC-Dc converter should be at least 85 %

6.2 Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery through out the year

6.3 The light output should remain constant with variations in the battery voltages.

7.0 PV Module (s)

7.1 **The PV module (s) shall contain mono/multi-crystalline silicon solar cells with IEC 61215(revised) certification or equivalent National or International Standards. The manufacturer should have the required certification for at least one of their regular modules. Further, the manufacturer should certify that the submitted module is also manufactured using same design and process.**

7.2 The operating voltage corresponding to the power output mentioned above should be 16.4 V. The I-V curve of the sample module should be submitted to the test center at the time of system qualification testing.

7.3 The open circuit voltage of the PV modules under STC should be at least 21.0 Volts.

7.4 The terminal box on the module should have a provision for opening for replacing the cable, if required.

7.5 A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side.

- i. Name of the Manufacturer or distinctive logo.
- ii. Model or Type Number
- iii. Serial Number
- iv. Year of Make

- 7.6 Models of reputed make shall be offered.
- 7.7 Monogram of JREDA along with following details translated into Hindi language in Devnagari script shall be screen printed in indelible ink or paint on the back side of each PV module :
- Solar Photo Voltaic Program 2010-11
 - Not for sale or transfer
 - Statutory action would be taken by JREDA, if it found sold or transferred under different Sections of IPC.
- 7.8 Frame of PV module shall be painted with Dark Brown colour.
- 7.9 A strip containing the following details should be mentioned in Hindi and pasted in permanent manner at the back of the module :
- Cost of the System
 - Government subsidy on the system
 - Beneficiary's contribution for the system

8.0 Electronic Protection

- 8.1 The system should have protection against battery overcharge and deep discharge conditions. The numerical values of the cut off limits must be specified, while submitting the samples for the testing purposes.
- 8.2 Fuses should be provided to protect against short circuit conditions.
- 8.3 A blocking diode should be provided as part of the electronics, to prevent reverse flow of current through the PV module(s), in case such a diode is not provided with the PV module.
- 8.4 Full protection against open circuit, accidental short circuit and reverse polarity should be provided.
- 8.5 Electronics should operate at 12 V and **should have temperature** compensation for proper charging of the battery through out the year.

9.0 Mechanical Components

- 9.1 Metallic frame structure (with corrosion resistance paint) to be fixed on the pole to hold the SPV module(s). The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that it can be installed at the specified tilt angle.
- 9.2 It should be possible to mount the light source on a metallic arm attached to the pole. The metallic arm for holding the light assembly should be extended at least 1.5 meters from the pole and set at a suitable angle to maximize uniform illumination of desired level over the specified area.
- 9.3 A vented metallic / plastic box with acid proof corrosion resistance paint for housing the storage battery outdoors should be provided.

10.0 Other Features

- 10.1 The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red light to indicate deep discharge condition of the battery. The green LED should glow only when the battery is actually being charged.
- 10.2 The ON/OFF switch used in the SSLS must be suitable for use in DC circuit and be reliable with long life. A cable (2core×1.5 Sq. mm.) of suitable length should be provided for inter connection between module and SSLS.
- 10.3 The following details should be marked indelibly on the body of SSLS.
 - i. Name of the Manufacturer or distinctive logo.
 - ii. Model or Type Number
 - iii. Serial Number
 - iv. Year of Make
- 10.4 Components and parts used in LED Solar Street Light Systems should confirm to the latest BIS specification, whichever such specifications are available and applicable.

11.0 Documentation

- 11.1 An operation, instruction, maintenance manual in English & in the local language should be provided with the Solar Street Light System. The following minimum details must be provided in the manual :
 - (i) About Photovoltaic
 - (ii) About Solar Street Light System – its components and expected performance
 - (iii) About PV Module. In case of imported modules it is mandatory to provide a copy of the international product qualification certificate to the test centre
 - (iv) About White LED Lights. The make, model number, country of origin and technical characteristics of LEDs should be stated in the product data sheet and furnished to the test centers
 - (v) About Battery and electronics used
 - (vi) Clear instructions about Mounting of PV Module(s)
 - (vii) About Electronics
 - (viii) About Charging and Significance of Indicators.
 - (ix) DO's and DON'Ts
 - (x) Clear instructions on Regular Maintenance and Trouble Shooting of LED Solar Street Light System
 - (xi) Name and address of the person or service center to be contacted in case of failure or complaint.

(B) Solar Street Lighting System (CFL Based)

1.0 Definition

1.1 A stand alone Solar Photovoltaic Street Lighting System comprises a compact fluorescent lamp, lead acid battery, PV module(s), control electronics, inter- connecting wires/cables, module mounting hardware, battery box, Operation, instruction and maintenance manual.

2.0 Technical Specification

2.1 The solar street lighting shall be of indigenous make and should conform to the following specifications:

Type of SSLS	Components	Specification
(One Light)	PV Module	1 x 74 Wp or 2 x 37 Wp under STC
	Lamp	1 x CFL (11 W), 4 Pin
	Battery	1 x 12 V, 75 AH, Tubular Plate, low maintenance type Lead Acid Battery
	Other Components	Control Electronics, Module mounting hardware, Battery box, Inter connecting wires/cables, Switches, Operation, Instruction and Maintenance Manual

3.0 Duty Cycle

3.1 The system shall be designed to automatically switch ON at dusk, operate throughout the night and automatically switch OFF at dawn, under average daily insolation of 5.5 kWh/Sq. m on a horizontal surface.

4.0 Lamps

4.1 The lamp will be of compact fluorescent (CFL) of 11 W, 4-Pin type, with adequate pre-heating circuit.

4.2 The light output from the lamp should be around 850±5% lumens. No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON followed by four minutes OFF is one cycle).

4.3 The lamp should be housed in a weather proof assembly suitable for outdoor use, with a reflector on its back. While fixing the assembly, the lamp should be held preferably in a base up configuration.

5.0 Battery

5.1 The battery shall be of flooded electrolyte type, positive tubular plate, low maintenance lead acid battery or gel type VRLA conforming to relevant BIS standard.

5.2 The battery will have a minimum rating of 12V, 75Ah (at C/10) discharge rate.

5.3 75% of the rated capacity of the battery should be between fully charged and load cut off conditions.

6.0 Electronics

- 6.1 The inverter should be of quasi sine wave/sine wave type with a frequency in the range of 20-30KHz. Half-wave operation is not acceptable.
- 6.2 The total electronic efficiency should not be less than 80%.
- 6.3 No blackening or reduction in the lumen output by more than 10% should be observed after 1000 ON/OFF cycles (two minutes ON followed by four minutes OFF is one cycle).
- 6.4 The idle current consumption should not be more than 10mA
- 6.5 Electronics should operate at 12 V and should have temperature compensation for proper charging of the battery throughout the year.
- 6.6 Necessary lengths of wires/cables and fuses should be provided.
- 6.7 The PV Module itself will be used to sense the ambient light level for switching ON and OFF the lamp.

7.0 PV Module(s)

- 7.1 The PV Module(s) shall contain mono/multi-crystalline silicon solar cells.
- 7.2 The power output of the module(s) under STC should be a minimum of 74 W. Either two modules of minimum 37 W output each or one module of 74 W output should be used.
- 7.3 The operating voltage corresponding to power output mentioned above should be 16.4 V.
- 7.4 The open circuit voltage of the PV module(s) under STC shall be at least 21.0 V.
- 7.5 The terminal box on the module should have a provision for opening for replacing the cable, if required.
- 7.6 A strip containing the following details should be laminated inside the module so as to be clearly visible from the front side.
 - v. Name of the Manufacturer or distinctive logo.
 - vi. Model or Type Number
 - vii. Serial Number
 - viii. Year of Make
- 7.7 Models of reputed make shall be offered.
- 7.8 Monogram of JREDA along with following details translated into Hindi language in Devnagari script shall be screen printed in indelible ink or paint on the back side of each PV module :
 - Solar Photo Voltaic Program 2010-11
 - Not for sale or transfer
 - Statutory action would be taken by JREDA, if it found sold or transferred under different Sections of IPC.
- 7.9 Frame of PV module shall be painted with Dark Brown colour.

7.10 A strip containing the following details should be mentioned in Hindi and pasted in permanent manner at the back of the module :

- Cost of the System
- Government subsidy on the system
- Beneficiary's contribution for the system

8.0 Electronic Protection

8.1 Adequate protection is to be incorporated under no load conditions e.g. when the lamp is removed and the System is switched ON.

8.2 Battery cut offs & reconnects should be provided to protect it against overcharge and deep discharge condition.

8.3 Fuses should be provided to protect against short circuit conditions.

8.4 A blocking diode, should be provided as part of the electronics to prevent reverse flow of current through the PV module(s), in case a diode is not provided with the module(s).

8.5 Full protection against open circuit, accidental short circuit and reverse polarity should be provided.

9.0 Mechanical Components

9.1 Metallic frame structure (with corrosion resistance paint) to be fixed on the pole to hold the SPV module(s). The frame structure should have provision to adjust its angle of inclination to the horizontal between 0 and 45, so that it can be installed at the specified tilt angle.

9.2 The pole should be made of mild steel pipe with a height of 4 meters above ground level, after grouting and final installation. The pole should have the provision to hold the weather proof lamp housing. It should be painted with a corrosion resistant paint.

9.3 The Battery Box should be vented metallic box with acid proof and corrosion resistant painted for outdoor use as per relevant BIS standard for housing the storage battery.

10.0 Other Features

10.1 Two LED indicators one for a green light to indicate charging in progress and another red LED to indicate deep discharge conditions of the battery should be provided. The green LED should glow only when the battery is actually being charged.

10.2 The ON/OFF switch used in the SSSL must be suitable for use in DC circuit and be reliable with long life. A cable of suitable length should be provided for inter- connection between module and SSSL.

10.3 The following details should be marked indelibly on the body of SSSL.

- v. Name of the Manufacturer or distinctive logo.
- vi. Model Type or Number
- vii. Serial Number
- viii. Year of Make

10.4 Components and parts used in Solar Street Light Systems should confirm to the latest BIS specification, wherever such specifications are available and applicable.

11.0 Documentation

11.1 An operation, instruction, maintenance manual in English & in the local language should be provided with the Solar Street Light System. The following minimum details must be provided in the manual :

- (i) About Photovoltaic
- (ii) About Solar Street Light System – its components and expected performance
- (iii) About PV Module
- (iv) About CFL
- (v) About Battery
- (vi) Clear instructions about Mounting of PV Module(s)
- (vii) About Electronics
- (viii) About Charging and Significance of Indicators.
- (ix) DO's and DONT's
- (x) Clear instructions on Regular Maintenance and Trouble Shooting of Solar Street Light System
- (xi) Name and address of the person or service center to be contacted in case of failure or complaint.

11.2 Any minor equipment and material which may not be specifically mentioned in this specification but are required to make the system complete in every respect in accordance with technical specification and guaranteed performance of the equipment shall be deemed to have been covered under the scope of this specification and shall be provided by the Supplier within the quoted price.

11.3 The Supplier shall satisfy JREDA that the Supplier possesses the necessary technical experience and has at his disposal suitable facilities and staff to ensure that the contract shall be executed with the best quality material and workmanship within the stipulated time. Necessary particulars in this regard shall be furnished with the Tender.

11.4 The equipment supplied shall be new and best of their kind and of latest technology on the date. All materials and equipment shall comply with the MNRE Specifications and Standard.

11.5 The equipment shall be designed to have maximum reliability and ease of operation and maintenance as primary consideration. The equipment offered shall be of a family having basic design and which have already been supplied and have operated efficiently and reliably elsewhere at least one year under similar climatic and operating condition. Operation feedback for such equipment already supplied shall be attached with the offer.

11.6 All equipments supplied shall be guaranteed for quality workmanship and compliance with the specified requirements for integrated performance to deliver rated output.

12.0 Quality & Warranty

12.1 Components and parts used in White LED and/or CFL based solar street lighting systems should conform to the latest BIS / international specifications, wherever such specifications are available and applicable. A copy of the test report / certificate stating conformity of BIS /international standards must be submitted to the test centre.

12.2 The PV module(s) will be warranted for a minimum period of 15 years from the date of supply and the complete White LED and/or CFL based solar street lighting system including the battery will be warranted for a period of at least 5 years from the date of supply.

12.3 The original manufacturers of white LED based and/or CFL based solar street lighting system are required to provide a detailed report on the test performance and the actually measured values of PV module,electronics, LEDs, CFL, battery and other related parameters, as per MNRE specifications. Mere mention of compliance to MNRE specifications is not acceptable and such samples may not be tested by the Test center. The test center will refer to the measured values provided by the manufacturer in the test report issued by the test center.

5. Five Years Comprehensive Maintenance Contract (CMC)

1.0 The Comprehensive Maintenance Contract (CMC)

- 1.1 The Comprehensive Maintenance Contract shall include servicing & replacement guarantee for parts and components (such as battery, electronics, CFL/LED luminaries, etc) of Solar Street Lighting Systems for 5 years from the date of installation. For PV modules, the replacement guarantee is for 15 years.
- 1.2 The maintenance service provided shall ensure proper functioning of the SPV system as a whole. All preventive/routine maintenance and breakdown/corrective maintenance required for ensuring maximum uptime shall have to be provided by the Supplier. Accordingly, the Comprehensive Maintenance Contract (CMC) shall have two distinct components as described below.

2.0 Preventive/Routine Maintenance

- 1.0 This shall be done by the company at least once in a 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, changing of tilt angle of module mounting structure, cleaning & greasing of battery terminals and any other activity that may be required for proper functioning of the SPV system as a whole.

3.0 Breakdown/Corrective Maintenance

- 3.1 Whenever a complaint is lodged by the user, the bidder shall attend to the same within a reasonable period of time (7 days) and in any case the breakdown shall be corrected within a period not exceeding ten days from the date of complaint.
- 3.2 The bidder shall maintain the following facilities at the local Service Centre for ensuring highest level of services to the end user
1. Adequately trained manpower, specifically trained by the bidder for carrying out the service activities.
 2. Adequate provisions for record keeping, which shall inter-alia, include the following :
 - (a) Details of system supplied within the command area of the service station including full name and address of end user, system and sub-system serial numbers and records of routine maintenance carried out (duly signed by the end user). These records shall include voltage, current, specific gravity, indicator charge, CFL full glow, charge controller operation, electronics, etc.
 - (b) History record sheets of maintenance done.
 3. Adequate spares for ensuring least down time of an individual system.
 4. The Service Center shall send summary service reports to JREDA on half yearly basis. These reports shall include the following information :
 - (a) Number of systems covered by the Service Center
 - (b) Number of systems working satisfactorily on the reporting date
 - (c) Number of complaints received during the period of reporting
 - (d) Number of complaints attend during the period of reporting
 - (e) Major cause of failure, as observed
 - (f) Major replacement made during the reporting period

Separate report shall be submitted for each type of systems manufacture wise in case the service center caters to the requirement of more than one manufacture

- 3.3 The records maintained at the Service Center shall be available time to time to JREDA.
- 3.4 The date of CMC maintenance period shall begin on the date of actual commissioning of the SPV systems.
- 3.5 Bidder shall furnish details of infrastructure that are presently available for establishing of Service Centers.

- 3.6 The quality/level of service provided by the bidder would form the basis for determining eligibility of the bidder to participate in the subsequent programs of JREDA.

6. Proforma – 1

Forwarding Letter

NIB No.: JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11

Date : 00.00.2010

To,
The Director
Jharkhand Renewable Energy Development Agency (JREDA)
Plot No. 328/B, Road No. 4, Ashok Nagar,
Ranchi – 834002.

Sub : Offer In Response to Notice Inviting Bid No. JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11 for Manufacturing, Supply, Installation, Testing & Commissioning Including 5 Years Comprehensive Maintenance Contract (CMC) of SSLs (LED and/or CFL) Under Solar Photovoltaic Program

Sir,

With reference to the above we are submitting this offer after having fully read and understood the nature of the work and having carefully noted all the specifications, terms & conditions laid down in the bid document. This offer is hereby submitted in two different envelopes sealed inside a third envelope duly marked and sealed as indicated below :

Part – I (Technical Proposal) : Submitted in original plus one copy (1+1)

Part – II (Financial Proposal) : Submitted in one original copy only (1+0)

We also confirm that:

1. We are an Indian company/firm.
2. The components of SPV systems shall be indigenously manufactured.
3. We have never been debarred from executing similar type of work by any Central/ State/Public Sector Undertaking/Department/Nodal Agency.
4. The Bid Document is purchased from JREDA office/downloaded from JREDA website (strike whichever is not applicable) and necessary document in support is enclosed.
5. We shall execute the offer/work order as per specifications, terms & conditions of the Bid Documents on award of work.

6. Our offer shall remain valid for placement of purchase orders up to 180 days from the due date of submission of offer.
7. If at any time, any of the declarations submitted by us is found to be false, our offer or order is liable to rejection.

Yours faithfully,

(Signature of Authorized Signatory)

Name :

Designation :

Company Seal :

7. Proforma – 2

Authority Letter for Signing Bid Document & Attending Bid Opening Meeting
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NIB No.: JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11

Date : 00.00.2010

To,
The Director
Jharkhand Renewable Energy Development Agency (JREDA)
Plot No. 328/B, Road No. 4, Ashok Nagar,
Ranchi – 834002.

Sub : Authority Letter for Signing Bid Document & Attending Bid Opening Meeting

I hereby authorize (Name & Designation) to sign the Bid Document and attend the Bid Opening Meeting to be held on at JREDA on behalf of our company.

He is also authorized to provide clarifications/confirmations, if any, and such clarifications/confirmations shall be binding on the company. The specimen signature of is attested below.

.....

(Specimen Signature)

Name :

Designation :

.....

(Signature of Authorized Signatory)

Name :

Designation :

Company Seal :

Yours faithfully,

(Signature of Authorized Signatory)

Name :

Designation :

Note :

1. To be submitted by bidders on official letter head of the company.
2. Authorization can be for more than one persons

8. Proforma – 3

Information about the Bidding Firm

NIB No.: JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11

Date : 00.00.2010

Sl.	Particulars	
1.	Name of the Bidder	
2.	Address of Bidder	
3.	Telephone No.	
4.	Fax No.	
5.	E-mail Address	
6.	GPS Co-ordinate of Registered Office	
7.	GPS Co-ordinate of Factory Campus	
8.	Name & Designation of Authorized Signatory for Correspondence	
9.	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Ltd. Co./Public Sector)	
10.	Permanent Account Number (PAN)/TIN	
11.	Firm's Registration Number	
12.	EPF Registration No. (if applicable)	
13.	Sales Tax/Value Added Tax Registration Number	
14.	Specify the Item Originally Manufactured	
15.	Year of Starting of Manufacturing of PV Component(s)	

16.	International Certification Awarded (if any)			
17.	Installed Capacity for Solar Products/Components			
18.	Production and Sale of Solar Components in the Last Three Years (in nos. of units)		Production	Sales
		2007-08		
		2008-09		
		2009-10		
19.	Total Production and Sale of PV Products During the Last Three Years (in Rupees)	2007-08	Production	Sales
		2008-09		
		2009-10		
20.	Name of Material and Model Type Offered			
21.	Name of Manufacturer of SSLSs with Full Address			
	1.	SPV SSLSs (CFL and/or LED)		
	2.	PV Module		
	3.	Control Electronics/Charge Controller		
	4.	Battery		
22.	Particulars of Earnest Money			
23.	Quantity Quoted for this Bid			
	1	LED based SSLSs		
	2	CFL based SSLSs		
24.	Whether manufacturer is permanently registered as an SSI Unit of Jharkhand and/or with NSIC Unit for SPV system			
25.	Place where Materials will be Manufactured			

26.	Place where Materials will be Available for Inspection	
27.	Whether the Bidder has submitted details with regard to supplies made to important organizations.	
28.	Details of any existing service network in Jharkhand (Name & address of service centre, year of opening)	
29.	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 in seriatim duly signed. This bid proforma must be submitted duly signed in case separate sheet is submitted).

9. Proforma – 4

Details of Orders Received and Executed in Past 3 Years
--

NIB No. : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11

Date : 00.00.2010

Details of Orders Received & Executed by the Manufacturer/Supplier for Supply of SSLs to different Govt. Organization/JREDA/ Other Nodal Agencies/Important Organization & Institutions during Last Three Years.

Sl.	Name of Agency/ Organization	Purchase Order No., Date & Ordered Qty.	Name of Model	Delivery Schedule	Qty. Supplied Within Delivery Schedule	Qty. Supplied After Delivery Schedule	Date of Full Supply

Yours faithfully,

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

Note:

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

10. Proforma – 5

No Deviation Certificate

NIB No. : JREDA/SPV/01/SSLS(LED and/orCFL)/2010-11

Date : 00.00.2010

To,
The Director
Jharkhand Renewable Energy Development Agency (JREDA)
Plot No. 328/B, Road No. 4, Ashok Nagar,
Ranchi – 834002.

Dear Sir,

We understand that any deviation/exception in any form from our bid against the above mentioned reference number may result in rejection of our bid. We, therefore, certify that we have not taken any exceptions/deviations anywhere in the bid and we agree that if any deviation is mentioned or noticed, our bid may be rejected.

Yours faithfully,

(Signature of Authorized Signatory)

Name :

Designation :

Company seal :

Note : This “No Deviation Certificate” should be written on the letter head of the bidder indicating BID No. duly signed and stamped with date by a person competent and having the power of attorney to bind the bidder.

11. Proforma – 6

Format for Submitting Bank Guarantee in Lieu of Earnest Money
--

NIB No. : JREDA/SPV/01/SSLS(LED and/orCFL)/2010-11

Date : 00.00.2010

(To be submitted in Rs. 50/- Non-Judicial Stamp Paper to be purchased in the name of the issuing bank)

To,
The Director
Jharkhand Renewable Energy Development Agency (JREDA)
Plot No. 328/B, Road No. 4, Ashok Nagar,
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. 9 Earnest Money" has agreed to establish a Bank Guarantee in Your favour through us valid up to (date) instead of deposit of earnest money in cash.

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

1. We (Bank) hereby agree and undertake to pay you on demand the said amount of Rs. (Rupees only) without any protest or demur in the event the Supplier/Tenderer after submission of his tender, resiles from or withdraws his offer or modifies the terms and conditions thereof in a manner not acceptable to you or expresses his unwillingness to accept the order placed and/or letter of intent issued on the Supplier/Tenderer for the work under "Notice Inviting Bid Ref. No. : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11 dated 00.00.2010".
2. Your decision as to whether the Supplier/Tenderer has resiled from or has withdrawn his offer or has modified the terms and conditions thereof in a manner not acceptable to you or has expressed his unwillingness to accept the order placed and/or Letter of Intent issued by you on the Supplier/Tenderer for the work under

"Notice Inviting Bid Ref. No. : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11 dated 00.00.2010" in this regard, shall be final and binding on us and we shall not be entitled to question the same.

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

Signed and Delivered

For and on behalf of Bank.

(Banker's Name)

Name of Bank Manager :

Address

.....

12. Proforma – 7

Format for Guarantee Card to be Supplied with Each SSLs

NIB No : JREDA/SPV/01/SSLs(LED and/or CFL)/2010-11

Date : 00.00.2010

(To be supplied by bidders on the official letter head of the company/firm)

Guarantee Card

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

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

Filling Instructions:

1. The SSLs components will be generally guaranteed as per point 17 of General Terms & Conditions. The manufacturer can also provide additional information about the system and conditions of Guarantee as necessary. The Guarantee card to be supplied with the system must contain the details of the system supplied as per format given above.
2. During the Guarantee period JREDA/users reserve the right to cross check the performance of the systems for their minimum performance levels specified in the MNRE specifications.

13. Proforma – 8

**Format for Certificate of Delivery of the Number of SSLs Received by the Consignee as
Proof of Compliance by the Supplier**

NIB No. : JREDA/SPV/01/SL(LED and/or CFL)/2010-11

Date : 00.00.2010

प्रमाण पत्र

Consignee/प्राप्त कर्ता का नाम :पदनाम :

विभाग का नाम :

विभाग का पता :

प्रमाणित किया जाता है कि सोलर फोटो वोलटेइक कार्यक्रम के अंतर्गत अपारम्परिक ऊर्जा स्रोत मंत्रालय, भारत सरकार एवं जेडा द्वारा अनुदानित दर पर कुल सोलर स्ट्रीट लाईट (LED/CFL Based), सोलर मॉड्यूल, बैट्री, पोल, केबल एवं अन्य आवश्यक सभी उपस्कर प्राप्त किया।

इन सोलर उपस्करों की आपूर्ति मेसर्स द्वारा की गई है।

Consignee/प्राप्त कर्ता का हस्ताक्षर विभागीय मुहर के साथ :

दिनांक :

14. Proforma – 9

**Format for Location-wise Detail of the Module, Battery & Charge Controller Utilization Report
of LED and/or CFL based Solar Street Light (SSLS) Installed Under Solar Photo Voltaic Program (SPV)**

NIB No. : JREDA/SPV/01/SSLS(LED and/or CFL)/2010-11

Date : 00.00.2010

Name of Manufacturer/Supplier :.....

Name of Consignee :.....

Address of Consignee :

(A) Solar Street Lighting Systems

Sl.	Name of Beneficiary	Department Name	Module			Battery			Charge Controller			Date of Installation	Altitude	Latitude	Longitude
			Number	Make	Year of Manufac ture	Number	Make	Year of Manufa cture	Number	Make	Year of Manufa cture				

15. Proforma – 10

Format for Submitting the Price Schedule

BID No. : JREDA/SPV/01/SSLS(LED and/or CFL)2010-11

Date : 00.00.2010

To,
The Director
Jharkhand Renewable Energy Development Agency (JREDA)
Plot No. 328/B, Road No. 4, Ashok Nagar,
Ranchi – 834002.

Price Schedule

Sl.	Item	Total Bid Quantity	Price in Rupees	
			Unit Price	Total Price
1	2	3	4	5 = 3 x 4
A	Supply of CFL based (SSLSs) as per the Bid Document including CMC			
B	Supply of LED based (SSLSs) as per the Bid Document including CMC			

- Note :**
- 1 Above quoted price for SSLS 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 SSLSs are as per specifications, terms & conditions mentioned in the bid document.

Yours faithfully,

(Signature of Authorized Signatory)

Name :

Designation :

Company seal :

16. Check List & Format for Submission of Bid

Sl.	Details	Reference Page No.
1.	Demand Draft for cost of bid document/Photocopy of Demand Draft or money receipt if bid document is purchased from JREDA Office	
2.	Bank guarantee for earnest money in Proforma - 6	
3.	Bidders seeking concession/exemption from submission of earnest money, will have to submit an attested photocopy of relevant SSI unit certificate issued from the Govt of Jharkhand and from NSIC (if applicable)	
4.	Attested photocopy of registration certificate issued by Govt of Jharkhand or NSIC should clearly indicate the validity period. The photocopy of registration certificate should be attested by Gazetted Officer or Notary Public	
5.	Proforma – 1 (Forwarding Letter)	
6.	Proforma – 2 (Authority Letter for Signing Bid Document & Attending Bid Opening Meeting)	
7.	Proforma – 3 (Information about the Bidding Firm)	
8.	Proforma – 4 (Details of Orders Received and Executed in Past 3 Years)	
9.	Proforma – 5 (No Deviation Certificate)	
10.	Letter of acceptance to furnish the information in Proforma – 7, Proforma – 8, Proforma – 9, Proforma – 10, (1 hard copy and 1 soft copy in CD) if the bidder is declared successful bidder and is given LOI/LOA by JREDA.	
11.	List of testing facilities available. Test certificate of SSLs issued by Solar Energy Centre/MNRE approved testing centres for the test performed on or after latest MNRE Specification as available on MNRE Website.	
12.	Self attested photocopies of purchase orders/contracts received from the State Nodal Agencies. The bidder should have supplied solar photovoltaic systems of the value of at least Rupees Two Crores (Rupees One Crore in case of SSI Units) to any State Nodal Agency during any one of the past three financial years (i.e. 2007-08, 2008-09 and 2009-10).	
13.	Satisfactory completion of work certificate from the State Nodal Agencies for which the bidder has done work and mentioned in this bid document.	
14.	General bidders should have supplied, installed and commissioned minimum 200 nos. SSLs which should have worked satisfactorily for a minimum period of 1 year as on the date of submission of bid	
15.	Proof of annual turnover for past 3 years for SPV systems including details of manufacturing capacity/facility along with testing facilities and list of items/products manufactured in house and bought-out items.	
16.	Certified/Attested copies of Sales Tax/VAT Clearance Certificate for last three years and Sales Tax/VAT Registration Certificate	
17.	Attested Photo-copy of Proprietor's affidavit/Partnership Deed in case of Proprietor firm/partnership firm with the photograph & details of Proprietor/partners.	
18.	Photographs of MD or Two Directors (in case of Ltd. Company.)	
19.	Copy of MoU signed for Pre-bid tie-up	
20.	Financial capability/Solvency Certificate from bank/Financial Institution (indicating BG Limit, Cash Credit Limit, Overdraft limit & Cheque Purchase Limits)	
21.	Technical Particular data sheet of SSLs (LED and/or CFL) of Bidder	
22.	PF Registration Certificate & PF Registration No./Affidavit for non-applicability of PF rules	
23.	Copy of audited Balance Sheet and Profit & Loss Account for last 3 (three) years	
24.	Photographs of Registered Office & Factory attested by Gazetted Officer or Notary Public.	
25.	A tentative overall supply schedule in the form of Bar Chart	

Please ensure:

1. That all information is provided strictly in the order mentioned in the check list mentioned above.
2. Note that this is a zero deviation tender. 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.
3. Any clarification/confirmation bidder may require shall be obtained from JREDA before submission of the bid.
4. 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.