

Notice Inviting Bid

For

**“ENERGY EFFICIENT LED STREET LIGHTING DEMONSTRATION
PROJECTS AT THE LOCATION FOR RANDHIR VERMA CHOWK
(MACHLI GHAR) TO BOOTI MORE, RANCHI DISTRICT”**

Sponsored By

Bureau of Energy Efficiency, New Delhi

&

JREDA, Government of Jharkhand



Jharkhand Renewable Energy Development Agency (JREDA)

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

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

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Notice Inviting Bid

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

SUB: "ENERGY EFFICIENT LED STREET LIGHTING DEMONSTRATION PROJECTS AT THE LOCATION FOR RANDHIR VERMA CHOWK (MACHLI GHAR) TO BOOTI MORE, RANCHI DISTRICT"

JREDA invites bid for implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with three years CMC on Complete system at the location for Randhir verma chowk (Machli Ghar) to Booti More,Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system.

Name of Work	EMD (Rs. in Lakhs)	Cost of Tender document (in Rs.)
For implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with three years CMC on Complete system at the location for Randhir verma chowk (Machli Ghar) to Booti More,Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system. Qty:-362nos.of LED street light,Wattage-90 +/-5%,(As per pole to pole req.)Operating voltage-230v+40%to-40%,Freq-50Hz+/-5%.	Rs. 2.00 (Two lakhs)	10000.00 (Ten thousand)

1. Bid documents consisting, the schedule of quantities and detail of terms and conditions of contract and other necessary documents can be seen in JREDA website i.e. WWW.jreda.com. The bidder should submit the check list as per the Performa given at **Annexure-2**
2. Bids must be accompanied by Earnest money Deposit/Bid Security specified for the said work in favour of Director, JREDA on any Indian Nationalized Bank/Scheduled Bank, payable at "Ranchi" of requisite value as applicable.
- 3 Bid documents can be purchased from JREDA office by submitting a Demand Draft of Rs10000/- only drawn in favor 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 "Particulars of Tender". Bidders may also download the bid document from JREDA Website (www.jreda.com) and submit the cost of the bid document of requisite value in the form of Demand Draft, as applicable along with Technical Bid.

- 4 The BID Documents along with Bid Security and Demand Draft towards Cost of Bid Documents shall be submitted to the office of the undersigned on or before date and time of opening of Bids as specified before, during office hours on all working days through Regd. Post, speed post or by hand only addressed to the DIRECTOR, JREDA, 3rd FLOOR, S.L.D.C. BUILDING, KUSAI, DORANDA, RANCHI-834002, on or before 21.08.2014 at 3.30 pm, failing which the bid will be rejected. The authority will not be held responsible for the postal delay, in the delivery of the documents and non-receipt of the same in time.
- 5 The date and time of opening of financial bid will be intimated to the responsive bidders after technical evaluation. The financial bids of only the technically qualified bidders as per the NIB shall be opened in the presence of the bidders or their authorized representative if any.
- 6 Other details are as mentioned in the bidding documents.
- 7 The authority reserves the right to reject any or all the bids without assigning any reason thereof.

Sd/
Director, Jreda

Particulars of Tender
NIB No.04/JREDA/BEE/SLS (LED)/2014-15

Eligible and prospective Bidders may quote their offers as per details mentioned below:-

1.	Nature of work	Implementation of high impact energy efficient LED street lights with fixture.
2	Tentative Quantity	90W-100Watt ,362 no of LED Street Lighting Systems
3	Cost of Bid document (Non-refundable)	❖ Rs.10,000/- (Rupees Ten Thousands only)
4	Earnest Money Deposit	❖ Rs.2,00,000/- (Rupees Two Lakhs only).
5	Time of completion	Three months from the date of issue of purchase order/ intimation.
6	Validity of offer	Six months from the last date of submission Bid
7	Pre-bid meeting	14.08.2014 at 3.00 P.M.
8	Date of commencement and time of Issue of bid documents	06.08.2014 from 10.00 am to 5.30 pm on all working days
9	Last date & time of submission of bids document	21.08.2014 till 3:00 P.M.
10	Date & time of opening Eligibility bid Part-I	21.08.2014 at 3:30 P.M.
11	Date & time of opening technical bid Part-II	21.08.2014 at 3:30 P.M.
12	Place of issue and submission of bid documents and address for communication	Jharkhand Renewable Energy Development Agency(JREDA) 3rd Floor, S.L.D.C. Building, Kusai, Doranda, Ranchi - 834002, Ph.No: 2491161, Fax No: 0651-2491165 Web site: www.jreda.com E-mail: info@jreda.com

Note: Quantity may be increased or decreased which will be actual basis as per site requirement. Bidders are advice to visit the site before submission of bid document.

Information to Bidders

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

1. Scope of Work:

The scope of works has essentially consist of three parts:

- (i) Data revalidation.
- (ii) Replacement with LED fixture along with CCMS.
- (iii) Repair & Maintenance(CMC) of installed fixture up to project period.

Brief of scope of work are as follow:

- (i) Data revalidation of DPR preparation: Under this activity service provider/bidder has to revalidate the details of street lightings by walk through energy audit. Following are the steps for revalidation:
 - (a) Primary data collection: Bidder should collect the details of street light from Municipal Corporation in route prescribed as per NIB with street lights details, category of lights, wattage of lights, pole heights, span length, arm or bracket details, electricity bill or consumption, metered & unmetered lighting details, working hours etc.
 - (b) Secondary data collection: Bidder should verify the above mentioned details through physical site survey along with deputed Municipal officials. Sample size has also to be defined by the available tools. During secondary data collection bidder has to observe & measure the electrical parameter like voltage, current, PF, power consumption and also the variation in numbers of lamps. It is to be verified by jreda officials.
 - (c) Lux Measurement: Performance of the lights is to be measured by Lux measurement. The lux level will depend upon certain parameter like Road width, Pole to pole distance, Height of Pole, arm angel etc. in current condition all the parameter except lamp wattage are fixed. It is difficult to match the actual BIS. So we require equal lumen output as compared to the existing lamp. So lux measurement is not important. So service provider or bidder has to take lux level of limited lamps only.'
 - (d) Demonstration: The bidder/service provider has to demonstrate the energy saving during the replace the existing lamp with LED & put a meter for a week & put energy meter in other end (existing lamps). The difference between the power consumption will be the energy saving. For computation of energy savings, following procedure will be undertaken :
 - Determination of electrical parameter like voltage, power factor, harmonics etc. of the existing fixture in the designated area.

- Determination of lux output at road level as per specified methodology of National Lighting Code (NLC).
 - Determination of lumen output of the existing fixture based on manufactures data.
 - Replacement of LED fixture matching the lumen output of the existing and/or the lux level at the road.
 - The data of both existing & new LED lights of the designated will be collected. The data will be such that it provides the consumption of electricity by existing fixture & that by LED fixtures.
 - Energy saving will be recorded as the difference between the electricity consumption by existing and LED fixtures in the designated area.
- (ii) Replacement with LED fixture along with CCMS:
- (a) Bidder has to submit the complete implementation plan along with the name of official and duties who has to be deputed in the site for execution of project & after execution maintain the R&M activities up to the project period.
 - (b) Bidder should open the site office for smooth execution of the project.
 - (c) Signing of agreement. Bidder has to start immediate replacement of conventional lamp with LED lamp along with Central control and Monitoring system. The supplies, installation, testing & commissioning all are to be performed by serviced provider for all luminaire. The LED luminaries will be equivalent lumen/watt as compare to new existing conventional lamp as per NIB specification.
 - (d) All the machineries & equipment is required for implementation of the project is to be arranged & expense is to be borne by bidders, JREDA has to provide only authorization & necessary clearance & permission of required.
 - (e) The additional related work like circuit pole replacement, etc. which are related to project execution will be attended by bidder on additional charge, if JREDA will request & authorize.
 - (f) The quality of luminaries will be maintained by bidder. They have to use only luminaries who has technically approved as per given technical specification in tender document.
 - (g) During project execution bidder has to follows the all necessary safety & security guidelines issued by JREDA or as per standard engineering practice for implementation.
- (iii) Repair & Maintenance(CMC) of installed fixture up to project period.

- (a) The bidder has to take a responsibility of the repair & maintenance of all the installed new LED fixtures & system up to the project period. The fixture repairing will be done by free of cost. JREDA will not provide any manpower support for the above task.
- (b) The bidder should maintain spare stock which is 2% of the total lighting in the local site office for maintenance purpose.
- (c) The bidder should attained the failure/problem of installed system within a specified time, any delay by bidder for attending the problems will be panelize .
- (d) Bidder has to maintained necessary machineries & equipment in site which is required for maintenance activity.
- (e) The quality of spare or new fixture should as per earlier installed fixture or system.
- (f) After completion of project period bidder should ensure the availability of spare.

SI. No. Activity Time Period.

1. Completion of first phase data revalidation and arrangement of material after award of work order within 20 days.
2. Installation of LED lights along with CCMS after removing old should complete within three months from the date of issue of work order or specified in pre bid meeting.
3. Repair & Maintenance will be up to project period.

General Requirements:

- (i) Bidding agency should submit a Comprehensive Project Implementation Plan (CPIP) with deliverables according to the set timelines along with the technical bid as separate Annexure in terms of number of days.
- (ii) JREDA will monitor the project implementation to ensure its completion, in a repair & maintenance of installed fixture up to project period.
- (iii) Project office: On award of project, bidding agency will need to open a local project office for the purpose of execution of the project.
- (iv) Bidder is to be ready to install the related work of street lighting system.

2 Eligibility Criteria for Participant:

Participant having following minimum eligibility criteria would be allowed to participate in this Bid:-

1.
 - (a) Since LED is new technology items, the Bidder should be indigenous Manufacturer of LED street light fixtures and have adequate facilities for testing of the complete system or their authorized dealer in Jharkhand having

experience in similar work. Bidder should be either original manufacturer of LED or original manufacturer of complete LED Street Lighting systems having LED procured from the list of makes as mentioned in the tender.

- (b) The bidder should submit LED Street lights manufacturing certificate issued by competent authority certifying the manufacture of street light fixtures as per specification in case of the authorization as the case may be. The Bidder should submit proof i.e. certificate issued by competent Govt. authority certifying the manufacture of LED Street light fixtures.
- (c) LED street lighting fixtures of only indigenous make shall be accepted. However, the use of LED chips of reputed foreign make as per NIB is allowed.
- (d) The Bidder shall submit the test report of the quoted products, confirming to the applicable BIS / International Standard & DNIT specifications, with the bid, issued by issued by accredited Test laboratories on or after 1st April, 2012. Those manufacturers who have the in-house testing facility i.e. laboratory, approved by the competent Govt. authority, may submit test report of the laboratory along with the copy of the letter approved by the Govt. Authority
- (e) The bidders should have a branch office/service centre in Jharkhand of his own or through its authorized manufacturer. In case bidder does not have their office/service centre in Jharkhand state at present, he shall be required to submit an undertaking for opening a branch office/service centre in Jharkhand state of his own or through its authorized distributor within seven days of agreement against this tender.
- (f) The bidder should submit proof for (a) i.e. certificate issued by competent authority certifying the manufacture of street light fixtures of quoted items or the authorization as the case may be.
- (g) Aggregate financial turnover for three years in FY 2011-12, 2012-13 & 2013-14 should be **at least 30 crore** for manufacturer & 1.5 Crore for authorized agency only, (It should be submitted as per Annexure-11). The bidder or **authorized dealer /Distributor** should have good track record for supply of quoted items to any Central/State govt. Department/Agencies/PSUs. in the last 03 years i.e. FY 2011-14 **and current year** and successful supply, installation work in the field of LED lighting business alone in the following manner:
 - I. **Three similar individual completed works costing not less than the amount equal to 40% of the quoted amount **individually**. Or**
 - II. **Two similar individual completed works costing not less than the amount equal to 50% of the quoted amount **individually**. Or**
 - III. **One similar completed works costing not less than the amount equal to 80% of the quoted amount.**

Definition of similar works: Similar works means supply & installation works for LED Lighting only **done individually**.

- (h) Bidder shall enclose the copies of purchase orders and Performance/completion certificates for LED Lighting works only for this purpose. The copy of order and certificate indicating its successful execution should be enclosed with the check list
 - (i) Bidder has to submit C.A. certificate & document in proof of declaration.
 - (j) The bidder should not have been debarred from any Central/State Govt. Departments/Agencies/Borads/Corporations/PSUs/Public limited etc.
 - (k) The bidder shall submit the test report of the quoted products, conforming to the applicable relevant BIS/International Standard & specifications, it should be obtained from UL or CPRI or any other NABL certified lab. Test reports of all the quoted items are mandatory, bidder should also give an undertaking in this regard.
 - (l) Valid Electrical contractor license issued by Electrical Licensing Board, Energy Department, GoJ. In case the manufacturer does not have ECL, manufacturer can submit ECL of their authorized agency who will execute the work of installation and CMC. Manufacturer have to give declaration along with bid issued by competent authority of their company.
2. The participant shall be required to have adequate post installation localized service facilities/centers in Jharkhand. In the case firm not having these facilities/centers in the state, the Participant will have to submit a written commitment to establish adequate localized service facilities/ centers within seven days of signing of agreement else the tender for the subject tenderer may be liable for cancellation.
 3. Dealers/distributors need to furnish due authorization from the manufacturer signed on the letter head only by an authorized signatory of the manufacturer. Authorizations signed by any other person shall not be accepted and the bid shall be liable for rejection. Dealers and distributors shall also have to furnish an undertaking from the manufacturer clearly indicating that the manufacturer shall stand guarantee for the successful operation of the project including CMC support. Bids without the required undertaking shall be liable for rejection.
 4. The Participant should have valid CST/VAT/PAN/TAN No of Jharkhand State.If the bidder is not from Jharkhand state, they will have to submit JVAT at the time of agreement.
 5. Bid documents can be purchased from JREDA office or downloaded from Website www.jreda.ocm
 6. Bidder should submit authorization letter.

7. All the material to be supplied shall be Pre Dispatch inspection by JREDA officers as per specification at the cost of Bidder.
8. Verification and inspection of work will be done by JREDA. BEE certified auditors may be engaged to physically verify the work on site after testing & commissioning of the system.
9. The bidders shall have to submit their financial bid and other required relevant documents/certificates if any, as per time schedule.

Technical bid containing original (downloaded) bid document, relevant documents/certificates etc. duly sealed & signed along with Earnest Money Deposit should reach the office of the undersigned as mentioned in bid documents.

10. The Earnest Money Deposit should be deposited in the form of B.G./ crossed Demand Draft(**In original otherwise offer will be treated as cancelled**) drawn in favour of Director, JREDA, payable at Ranchi from any Nationalized/Scheduled Bank(No other form of EMD will be acceptable). The tender without EMD shall be rejected. Bank Guarantee Performa given at **Annexure-9** for Earnest Money
11. Validity period for acceptance of offer will be valid for 180 days from the last date of submission of the bid.
12. The Director, JREDA shall have full rights to accept or reject any or all the tenders, in part or full, without assigning any reason thereof.
13. Other details can be seen in the Bid documents.
14. Pre-bid meeting will be held as indicated in key dates in the JREDA Office wherein The Bidder will have an opportunity to obtain information and clarifications regarding the conditions in the Bid Document. The Bidder will be free to ask additional information or clarifications. Based on this, a common set of clarifications, deviations, if any, will be prepared and will be published on the website of JREDA. These common set of clarifications, deviations shall be part of Bid document and applicable to all Bidders. The offers submitted by the Bidder shall be based on the Bid Documents and Common Set of deviation issued.

Instruction to Bidders

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

Jharkhand Renewable Energy Development Agency (JREDA), Ranchi invites offers from eligible Indian bidders for the tender for the mentioned work with your best bidding price offer as per our specifications and terms & conditions mentioned in the bid document.

1. Bid Document

- 1.1 Bid documents can be purchased from JREDA office by submitting a Demand Draft of Rs10000/- only drawn in favor 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 "Particulars of Tender". Bidders may also download the bid document from JREDA Website (www.jreda.com) and submit the cost of the bid document of requisite value in the form of Demand Draft, as applicable along with Technical Bid.
- 1.2 The Bidders shall have to submit their financial bid and other relevant documents as per time schedule. Original (Downloaded) tender form, Technical Bid & Earnest Money Deposit should reach the office of the undersigned as mentioned in tender.

2. Earnest Money:

The Earnest Money Deposit should be deposited in the form of crossed Demand Draft / Bank Guarantee of requisite value as mentioned in "Particular of Bid" drawn in favor of "Director, JREDA" payable at Ranchi from any Nationalized /Scheduled Bank, (no other form of EMD will be acceptable). The tender without EMD shall be rejected. The Bank guarantee shall remain valid for 6 months.

3. Security Money:

Successful bidder shall submit a security deposit @10% of the allotted work order value in form of Bank Guarantee.

4. Submission of Bids:

- 4.1 Bidders are advised to submit their strictly based on the specifications, terms and conditions contained in the bid document and subsequent revisions/amendments, if any. The bid should be submitted along with covering letter as given at **Annexure-1**
- 4.2 The bid shall be prepared and submitted by typing or printing in English on white paper in consecutively numbered pages duly signed by authorized signatory with company seal affixed on each page. The bidder shall also enclose the information about bidding firm as per **Annexure-5** .

- 4.3 Original copy of bid document, amendments/revisions to bid document and one soft copy, including minutes of meetings, issued by JREDA, if any shall be signed and submitted along with the bid.
- 4.4 Bidder shall insure to submit all desired duly signed documents in a single binding for convenience with page number.
- 4.5 Anti-Collusion Certificate as pre **Annexure-6**
- 4.6 Complete bid document including all enclosures should preferably be submitting in hard bond or spiral binding and all pages should be numbered (except leaflet/catalogue) must be signed by the company's authorized signatory with seal of the company.
- 4.7 The bidders should submit the bid in two envelopes, **The Part-I (Technical bid)** and the **Part-II (Price bid)** should be sealed in separate envelopes and both envelopes should be sealed in a third envelope. The part -II (price bid) of only such bidders would be opened who qualified in the **Part-I (Technical bid)** should be sealed in an envelope super scribed with (i) NIB No.(ii) "**Part-I Technical Bid**", (iii) Name and address of the bidding firm, and (iv) should be addressed to Director, JREDA.
- 4.8 Part-I (Technical bid) should not contain price of any item. Such cases, even if found anywhere, shall not be given any cognizance.
- 4.9 The part-II (price bid) should be sealed in an envelope super scribed with NIT No., "part-II price Bid", Name and address of the bidding firm, and should be addressed to Director, JREDA.
- 4.10 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., (ii) "Offer for....." (iii) Name and address of the bidding firm, and (iv) Should be addressed to Director JREDA, 3rd Floor, SLDC Building, Kusai, Doranda, Ranchi-834002.
- 4.11 Authority person signing the document**
- 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 the document 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. For this purpose Power of Attorney in the Performa as prescribed at **Annexure-10** shall be submitted.
- 5. Other Terms & Conditions**
- 5.1 Insertion, post-script, addition and alteration shall not be recognized unless confirmed by bidder's signature and stamp.

- 5.2 Incomplete tender or tenders not submitted as per requirement as indicated in the NIB are likely to be rejected.
- 5.3 Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation.
- 5.4 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.
- 5.5 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.
- 5.6 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.
- 5.7 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.
- 5.8 No postal transaction shall be entertained for obtaining bid documents.
- 5.9 Issuance of bid documents shall not construe that the bidders would be automatically considered qualified.

Note: For any clarification with respect to the specification and other allied technical details mentioned in the tender document, Sri Surendra Prasad, Electrical Executive Engineer (Mob no 9308023380) may be contacted during office hours or through written request by Email Info@jreda.com latest by 13.08.14. Request made after the date will not be considered.

GENERAL TERMS AND CONDITIONS OF THE CONTRACT

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

1. GENERAL INSTRUCTIONS:

All the Bids shall be prepared and submitted in accordance with these instructions

- 1.1 The Purchaser reserves the right to request for any additional information and also reserves the right to reject the proposal of any Bidder, if in the opinion of the Purchaser, the data in support of Tender requirement is incomplete.
- 1.2 The Bidder is expected to examine all instructions, forms, terms & conditions and specifications in the Bid Documents and site requirements. Failure to furnish all information required in the Bid Documents or Submission of a Bid not substantially responsive to the Bid Documents in every respect may result in rejection of the Bid. However, the Purchaser's decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Purchaser.
- 1.3 **The bidders who have purchased the tender document or their authorized representative may participate in the pre-bid meeting for discussion on the tender requirements and for any further clarifications. Such bidders have to furnish their clarification requirements in writing for discussion during the pre-bid. The pre-bid discussion shall be held on 14.08.2014 at 3:30 PM in the office of the Jreda). No further clarifications shall be entertained after the pre-bid meeting.**
- 1.4 The firm will have to produce invoice/gate pass of the manufacturer for major items of material to be installed against supply & erection of work for genuineness of the material.
- 1.5 The Agency shall not assign or sublet the contract without written approval of the JREDA.

2. ENGINEER/PROJECT IN CHARGE

JREDA has nominated an officer, herein after called Nodal Officer, in connection with the implementation of LED Street Light Demonstration projects.

3. VALIDITY

The bidder shall specifically mention the period of validity of the tender/offer. The period of validity shall not be less than **180 days**. If any bidder withdraws his tender before the said period or makes any modifications in the terms or conditions of tender which are not acceptable to EIC, then the earnest money shall be forfeited without prejudice to any other rights of the tendering authority.

4. **EXECUTION AND COMPLETION**

The project including supply, erection and handing over in all respect should be completed within **90 days** which will be reckoned from the date of issue of purchase order and time of completion will be worked out accordingly. However, "time" being the essence of the project, early completion shall be highly appreciated.

Failure to complete the project within stipulated time period shall attribute towards Penalty as per relevant Clause mentioned in this Tender Specification except in force majeure conditions as per the tender

5. **CONSIGNEE:**

The Engineer/Project-in-charge/Nagar Nigam, Ranchi or appropriate authority as designated by the Nodal Officer shall be the consignee for the materials to be supplied under the work. The list of consignee along with other details shall be specified during placing formal orders.

6. **PERFORMANCE SECURITY:**

The successful bidder shall be required to submit a performance security in shape of Bank Guarantee (BG) executed on non-judicial stamp paper worth Rs.100/- (Rupees One hundred only) issued by a Nationalized / Scheduled Bank in favour of the Director, JREDA of 10% of the total order value. Validity of BG will be 60 months as per the format enclosed in **Appendix-9**. This bank guarantee shall be released after satisfactory completion of the CMC . The BG should be accompanied by a confirmation letter from the concerned bank.

- If the project completion period is delayed, the firm shall further extend the BG to cover the delay period. No interest is payable on the Performance Guarantee.
- The Performance Guarantee will be discharged after completion of the obligations by the bidder under the contract.
- In case of non-fulfillment of contractual obligation, the Performance Guarantee shall be forfeited.
- Any claim out of the liquidated damages may be recovered from the performance security.

7. EXECUTION OF AGREEMENT:

Within 15 days from the date of issue of purchase order by JREDA, the successful bidder shall sign and execute the contract agreement with the JREDA . The agreement shall be executed in Ranchi stamp paper worth Rs100/-.

Failure to execute the contract agreement with any Jreda as per the directive of the Director, jreda shall constitute sufficient ground for cancellation of award of contract and forfeiture of the bid security.

8. PAYMENTS 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:

- 60% of the Contract price 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 dully raised delivery Challan/transport challan/lorry receipt/dispatch clearance.
 - (iii) Duly filled Annexure-II in three sets (one for Consignee record, one for JREDA HQ. and one for Engineer-In-Charge of the work).
 - (iv) Photographs of all the equipments (materials) at destination with signature & seal of Consignee & JREDA officials. This record should be kept in the office of Engineer-In-Charge for verification.
- 30% of the Contract price shall be paid against successful installation, testing & commissioning after submission of following documents:
 - (i) Certificate for minimum seven days of satisfactory performance duly certified by the Consignee & JREDA officials.
 - (ii) Photographs of all the equipments after installation at destination with signature & seal of Consignee & JREDA officials. This record should be kept in the office of Engineer-In-Charge for verification.
- Rest 10% of the Contract price shall be paid @ 2% per annum after satisfactory completion of CMC period.

All payment will be made after submission of bills by the contractor in triplicate and its verification by Engineer-In-Charge of the work & subject to availability of fund

9. WARRANTEE:

All equipments shall be warranted for a period of 5 years from the date of taking over the installation by the client against unsatisfactory performance and/or breakdown due to defective design, workmanship of material. The equipments of components, or any part thereof, so found defective during warrantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of the client.

During the warrantee period, supplier shall ensure to repair/ replace the defective systems within 3 days of receipt of the complaint failing which client may impose penalty @ of Rs.50/- per default day. The penalty amount so imposed shall be deducted from the due payment / security deposit available with the JRADA. Separate record of the complaints shall be maintained by the Engineer/Project-in Charge. The complaint shall be conveyed by the Engineer/Project-in-Charge through mail/fax to the supplier under intimation to the EIC and the Nodal Officer. To avoid the penalty, it is suggested that supplier may maintain extra stock for material in their stores as necessary.

10. **PENALTY FOR DELAY IN COMPLETION OF CONTRACT:**

These systems are to be supplied, installed & commissioned within **90 days** from the date of issue of work orders.

The time for and date of delivery or dispatch & commissioning stipulated in the work order shall be deemed to be the essence of the contract, and if the firm fails to complete the works on the scheduled period or any extension granted thereby, the firm shall be liable for payment of penalty amounting to 0.5% (half percent) of the order value per week of unfinished works subject to the maximum of 10% (Ten percent) of the total order value and subject to force majeure conditions. Extension of delivery period could be with / without levy of penalty.

11. **CONTRACT PRICE:**

The contract price shall be FIRM throughout the contract period including the extension period (s), if any. Any increase/decrease in price, taxes and duties within the scheduled period of the contract shall be borne by the firm.

12. **FIRM TO INFORM ITSELF FULLY:**

The firm shall examine the instructions, general conditions of the contract, specifications, site requirements and the schedule of quantity and delivery to satisfy him as to all the terms and conditions and circumstances affecting the contract price. He shall quote prices according to his own judgment and shall understand that no additional cost except as quoted shall only be considered.

13. **SERVICE SUPPORT:**

The bidder needs to provide on-site support during the entire project period through its local representative (1st level support) whose details indicating name, postal address with pin code, e-mail, contact number and fax shall be furnished.

The local representative shall extend necessary support to the bidder for successful implementation of the project.

The bidder has to ensure a response time of at most 72 hours for attending the calls. In case the call is not responded within 72 hours, it shall be escalated to the next higher authority (2nd level support). **The bidder has to indicate also the name, postal address with pin code, e-mail, contact number and fax number of 2nd level authority for the purpose.** Any change in contact person or their contact details shall be communicated to EIC within two days of such change.

14. COMPREHENSIVE MAINTENANCE CONTRACT (CMC):

The comprehensive maintenance contract (CMC) for **three years** for maintenance/service for all the equipments at the time of execution of agreement. The CMC service shall include quarterly examination of the installation during regular working hours by trained persons in consultation with JREDA authorities and shall include all necessary supplies and genuine standard parts to keep the. Street lighting and the controllers are in proper working order. The call back should also be attended immediately.

15. EXTENSION OF TIME:

If the delivery of the equipments / materials is delayed due to reasons beyond the control of the Firm, the Firm shall apply to the JREDA in writing of his claim for an extension of time under intimation to Director JREDA

16. SAFETY PRECAUTIONS:

The firm shall observe all applicable Rules and regulations regarding safety at the Site. Any compensation due on account of accident at site shall be to the firm's account.

17. AUTHORITY FOR ACCESS:

No persons other than the employees of the Firm and his sub-firms shall be allowed on the Site except with the written consent of JREDA or EIC. Facilities to inspect the work shall at all times be afforded by the firm to EIC.

18. ENGAGEMENT OF LABOUR:

The Firm shall make its own arrangements for the engagement of all labour and for their payment, housing, feeding and transport. The agency shall either have a valid Electrical contractor license issued by ELBO, Jharkhand or should engage the services of a electrical contractor license holder issued by ELBO, Jharkhand for all the electrical installation works and CMC. The Firm shall be solely responsible for the safety of the labour and equipments during execution of the project and shall adopt all safety measures as per applicable rules in force.

19. STORE:

The storing of materials at work site shall be arranged by the firm at its own cost. No compensation shall be made by the Jreda for any damage or loss of materials during storing, transit transportation and at the time of erection. The firm has to ensure necessary safety and insurance during the storage and during installation of the project.

20. INSURANCE:

The insurance of all the equipments covered under this specification shall be done by the Firm with their own insurance underwriters at their own risk. The firm shall make his own arrangement to receive and store the material at site.

Any claim due to loss or breakage during transit, storage and installation shall be settled by the Firm with its insurance underwriters and the settlement of claims with the insurance company, railway authorities etc. for any loss/damage occurring during transit and storage at works site shall entirely be the responsibility of the firm.

The firm shall undertake free replacement of the materials damaged or lost during transit, storage and installation which will be intimated by the Consignee within 3 days of such loss or damage.

Comprehension insurance cover for men, machinery and all parts shall be arranged by the firm for entire period of Contract/during the maintenance period.

21.0 Force Majeure conditions

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

The term force majeure shall have herein mean riots (other than among the contractor's employee), civil commotion, war (whether declared or not), invasion, act of foreign enemies hostilities, rebellion, insurrection, military coup to usurp power, act of god such as earthquake, 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.

22.0 Jurisdiction of the Court

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

**SPECIFICATIONS OF ENERGY EFFICIENT LED BASED
LUMINARIES UNIT FOR STREET LIGHTING**

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

APPLICABLE STANDARDS

The tendered materials should confirm to the following Indian standard specification

SI No.	IS No.	Specification
1	IS 16102(Part-I & II)	Performance and safety requirement for self-ballasted LED lamps for General Lighting Services
2	IS 16105	Measurement of lumen maintenance of LED sources
3	IS 15885 (part-I & II)	Safety of lamp control gear
4	IS16104	Performance requirement for Electronic control gear for LED
5	IS 16106	Method of electrical and photometric measurements of solid state lighting products
6	IS 16108	Photo biological safety of lamps and lamp systems

Materials meeting with the requirements of other authoritative standards, which ensure equal or better quality than the standards mentioned above, shall also be considered. In such case the salient points of difference along with advantages between the standards adopted and the specified standards shall be clearly brought out in a schedule. Components for which no IS is available, relevant International Standard may be considered.

For values not available in relevant IS values indicated in the GTP/ Tender specification shall be valid. In case of discrepancies between values of IS and GTP the better will prevail.

TECHNICALSPECIFICAIONS:

Sr. No.	Specifications	Required Value
1	Total Array LED Wattage (Rated Wattage)	90W (+/-5%)
2	Total System Wattage (Luminary Wattage)	≤ Rated Wattage X 1.15
3	System Power Efficiency	> 85%
4	Operating Temperature Range	-20 °C to +50 °C
5	Operating Humidity	10% to 90% RH
6	Usage Hours	10 to 12 hours per day
7	Luminary Angle	Horizontal 130° (±3°) and vertical 50° (±3°)
8	LED Make*	Nichia / Osram / Philips Lumileds / Cree
9	LED Efficacy*	> 120 lumens / watt
10	LED Drive Current*	≥ 350 mA
11	LED Assembly	<ul style="list-style-type: none"> • SMD • LEDs must be mounted on Copper MCPCB for high thermal conductivity and fastest heat transfer from the LED junction
12	Junction Temperature	< 80 °C
13	Color Temperature	5500-6500 °K

14	Color Rendering Index	> 70
15	Uniformity Ratio	> 0.4
Luminaire Efficacy		> 92 lumens / watt
17	Total Lumen Output	≥ 9200 lumens
18	Lumen Maintenance	70% over 50000 hours
19	Luminaries body temperature after 12 hours of continuous operation	≤ 30 .C from ambient
20	Earth Resistance	< 0.5Ω
21	Luminary Housing	<ul style="list-style-type: none"> • Pressure Die Cast Aluminum housing with corrosion resistant polyester powder coating & safety as per IEC60598 / IS 10322 • Suitable for side entry mounting for 50mm to 60mm OD pipe bracket complete with bracket & locking bolt • Good thermal management system should be provided with suitable large surface area with fins to dissipate the heat to ambient air and block any accumulation of dust / water • Luminaire should be made up of 2 light modules with 2 individual drivers for each module (one driver should operate one module)
22	Operating Voltage	230 V +/- 40% AC
23	Operating Frequency	50 Hz to 60 Hz
24	In-Built Protections	<ul style="list-style-type: none"> • Surge Protection – 4kV • Over voltage protection – protected from 110 to 140% of rated output voltage • Short circuit protection – Constant current limit mode • Over temperature protection – Auto shut off
25	Optics	<ul style="list-style-type: none"> • Secondary lens array should be provided for optimized roadway photometric distribution. Photometric measurements in accordance with LM-79/IS16105 • Lens material should be optical high grade PMMA with more than 90% light transmittance
26	Compliance	<ul style="list-style-type: none"> • Surge Protection - EN61000-4-5 • LED Luminary Safety & Reliability - IEC60598 • Power Harmonics - EN61000-3-2, Class C • Luminary – LM 79@ • LED CHIP – LM 80@ • RoHS for LED • CE & UL certificate

2.2 CONSTRUCTION

The lamps should be robustly built with adequate mechanical strength, heat resistance, insulation resistance, flame resistant and corrosion resistant material complying with relevant clauses of IS 16102. It should be made of Die cast Aluminium/ Aluminium extrusion with toughened glass or poly carbonate cover suitable for mounting on a pole

pipe bracket with complete locking arrangement. The complete housing of the lamp should have an ingress protection level of IP 65 and IP 66 for the lamp compartment as well as the driver circuit. The luminaries shall have separate optical and electrical part for maintainability.

The viewing angle of the luminary shall be 120X70 degrees suitable for street lighting applications to achieve required uniformity.

Lead wire of minimum length of 1 meter or as necessary is to be provided for electrical connection.

The weight of the lighting fixtures should be compatible with the existing pole and its associated structures.

2.3. MARKING ON THE LAMP:

The lamps should be clearly and durably marked with the following mandatory markings:

- a. Manufacturer's name
- b. Rated voltage (marked "V" or volt)
- c. Rated wattage (marked "W" or watts)
- d. Rated lumen
- e. Rated frequency (marked "Hz")
- f. **"Not for sale - High Impact LED Street Light Project, JREDA, Govt. of Jharkhand"**.

2.4. TOTAL HARMONIC DISTORTION:

Should be less than 15%

2.5. LAMP EFFICACY:

Should not be less than 120 lumens per watt.

2.6. POWER FACTOR:

Should be greater than 90% including the driver circuit. Luminaire with high power factor shall be preferred at the same cost.

2.7. COLOUR RENDERING INDEX:

Minimum CRI of 70

2.8. DRIVER CIRCUIT EFFICIENCY:

Should be greater than 85%

2.9. CORRELATED COLOUR TEMPERATURE

Should be between 5500° K to 6500° K

2.10. POWER CONSUMPTION:

Should be maximum 120 watt excluding the driver circuit so that the lux level of the road of is not less than 20 lux measured using a 9 point or appropriate method with uniformity ration of 0.4 and transverse uniformity of 0.33.

2.11. LIFE EXPECTANCY:

Should be 50000 glow hours at normal ambient conditions and lumen maintenance of category 3 or better for L70 as per IS 16102 (Part-2):2012 for the LEDs.

2.12. WORKING CONDITIONS:

Temperature: - 5 to 50° C

Humidity: 10% to 90% RH

2.13. SWITCHING:

To be operated through group switching device for operation during night hours only.

3. GENERAL REQUIREMENTS FOR STREET LIGHTING:

- I. Only **NICHIA/ OSRAM/ SEOUL/ PHILIPS LUMILEDS/ CREE** LED's shall be used for the street lights.
- II. The luminaire casing/housing shall be of stainless sheet steel SS304 grade or aluminium having high conductivity preferably to grade 5000 or similar to high conductivity heat sink material.
- III. The electronic components used shall be as follows:-
 - IC (Integrated circuit) shall be of industrial grade or above.
 - Metallic film / Paper/Polyester Capacitor shall be rated for a sustained operating temperature of 105°C.
 - The resistors should be preferably made of metal film of adequate rating. The actual rating versus loading shall be by a factor of 3.
 - The junction temperature of the Switching devices such as transistors and MOSFETs etc. shall not exceed 125°C (allowing thermal margin of 25 °C).
 - The protective cum adhesive coating used on PCBs should be cleared and transparent and should not affect colour code of electronic components or the product code of the company.
 - The construction of PCBs and the assembly for components for PCBs should be as per IS standards.
 - The electronics covered for this equipment shall pass all the tests called for in the above specification. The bidder shall indicate the deviation or compliance otherwise the offer shall not be considered for evaluation.
 - The infrastructure for Quality Assurance facilities as called for in the above specification must be available at the manufacturing facility. In-house testing facility for Quality Assurance should be present. The compliance shall be indicated clearly in the tender itself.

- IV. The connecting wires used inside the luminaries, shall be low smoke halogen free, fire retardant e-beam cable and fuse protection shall be provided in input side.
- V. Care shall be taken in the design that there is no water stagnation anywhere and entire housing shall be dust and water proof having IP65 and IP66 protection as per IEC 60529.
- VI. The LED Module(s), Driver gear, etc. shall be designed in such a way so that temperature of heat sink shall not exceed 150C above the ambient temperature.
- VII. All the material used in the luminaries shall be halogen free and fire retardant confirming to UL94.
- VIII. Lumen maintenance of 70% for at least 50000 hours. LM 79 Data sheet showing lumen maintenance in the LED shall also be submitted.
- IX. The manufacturer /firm should also offer Comprehensive Maintenance Contract (CMC) for the post Warranty period.

4. General requirements for Microprocessor Controller:

Technical Specification of Microprocessor based Switching Panel.

- I. Enclosed in 14/16 G CRCA sheet steel fabricated box, outdoor type, self-standing and easily attachable to the existing panels (feeder pillars).
- II. Microprocessor based system and control suitable for unmanned operations.
- III. Input power redundancy. (i.e. unit should operate in single-phase healthy condition.)
- IV. Overload & short circuit protection.
- V. Real time clock with 5 years battery life.
- VI. EPROM for data storage and communication
- VII. Auto computation of sunrise and sun set timings.
- VIII. Twilight time forward and reverse delays for turning lights ON/OFF settable for Ranchi.
- IX. Individual day profile settable for 365 days of the year.
- X. Digital controller with 8/16 bit DSP based micro controller operating as an intelligent unit to monitor and measure the electrical parameter
- XI. LCD display with backlit function
- XII. Single Phase, 2 Wires, 50 Hz
- XIII. 230V+/- 30%, AC, 50Hz
- XIV. Ratings 10 kVA, 20A Single Phase or as applicable
- XV. Mounting suitable for Indoor & Outdoor, pole/foot Mounted, IP 65

5. TEST CONDITIONS:

5.1. Type Test:

The materials offered shall be fully type tested at independent accredited/ Govt. certified laboratories by the bidder as per the relevant standards referred to in this document. **The test reports should not be one year old from the date of**

opening of bid. The bidder shall furnish two sets of type test reports along with the bid. Bid without type test reports shall be treated as non- responsive.

5.2. Acceptance Test:

All acceptance tests as stipulated in the relevant standard shall be carried out by the supplier in the presence of the PURCHASER's representative.

6. INSPECTION:

6.1. The supplier will keep the PURCHASER informed in advance of the time of the starting and the progress of manufacture of equipment in its various stages so that arrangement could be made for inspection if necessary. The PURCHASER or his authorized representative(s) will have access to the supplier's or his subcontractor's work at any time during working hours for the purpose of inspecting the materials during manufacturing of the materials / equipment and testing and may select test samples from the materials going into plant and equipment.

The supplier will provide the facilities for testing such samples at any time including access to drawings and production data at no charge to Purchaser. As soon as the materials are ready, the supplier will duly send intimation to PURCHASER by Regd. Post/Speed Post and e-mail and carry out the tests in the presence of representative(s) of the PURCHASER if felt necessary by the purchaser. If PURCHASER feels necessary, it may select one sample from the lot at factory to send for testing at CPRI/NTL or any other standard NABL accredited laboratory.

6.2. The PURCHASER may at its option get the materials inspected by the third party if it feels necessary.

6.3. The dispatches will be affected only if the test results comply with the specification. The dispatches will be made only after the inspection by the PURCHASER's Officer is completed to the satisfaction of the PURCHASER or such inspection is waived by the competent authority.

6.4. The acceptance of any quantity of materials will in no way relieve the supplier of its responsibility for meeting all the requirements of this specification and will not prevent subsequent rejection if such materials are later found to be defective or deviation from specification/IS.

6.5. The supplier will give 15 days advance intimation to enable the PURCHASER depute its representative for witnessing the acceptance tests If necessary.

6.6. Should any inspected or tested materials / equipment fail to conform to the specification, the PURCHASER may reject the materials and supplier will either replace the rejected materials or make alterations necessary to meet specifications requirements free of costs to the Purchaser.

- 6.7. After delivery of materials the materials may be verified/retested if necessary in full or taking one random sample before acceptance. In case of any deviation to the specification, GTP, IS found during the tests the lot will be rejected or will be replaced by supplier without any additional cost.
- 6.8. The PURCHASER may waive inspection at its own discretion if it so desires.

7. GENERAL:.

Guaranteed technical parameters: The GTP as per **Annexure-7** (Part A, Part B and Part C) duly filled in shall be submitted along with the offer. Bids without the above information shall be treated as non-responsive and shall be rejected.

8. RELAXATION OF TECHNICAL REQUIREMENT:

EIC reserves the right to ignore/ relax minor deviations in the technical specifications mentioned above, if it does not materially affect the quality of material to be supplied. The decision of Director, JREDA on such matters shall be final and binding on the supplier.

PART "A": GENERAL INFORMATION

(Strike off whichever is not applicable. Separate sheets should be used, wherever necessary)

1. Name & Address of the Bidder:
2. Name & Address of the firm / Company etc.:
 - a) Registered Office Address:
 - b) Fax Nos. :
 - c) Telephone & Mobile Nos. :
 - d) Email Id:
3. Confirm whether bidder is Manufacturer: Yes / No
If NO, then is bidder submitted proper authorization from manufacturer?
4. Manufacturer to give following particulars
 - a) Address of factory:
 - b) Year of starting manufacturing:
 - c) Whether same / similar materials: Yes / No
Manufactured earlier
(If yes, give reference)
 - d) Yearly/monthly production capacity:
5. PAN No. (Enclose Copy):
6. VAT/CST No. (Enclose Copy):
7. Service Tax No. (Enclose Copy):
8. Any other information that bidder may like to:
give in order to highlight his bid

PLACE :

SIGNATURE OF BIDDER
(NAME IN FULL)

DATE:

(DESIGNATION/STATUS)
(FIRM/COMPANY SEAL)

PART 'B': COMMRCIAL INFORMATION

(Strike off whichever is not applicable. Separate sheets should be used, wherever necessary)

1. i) Earnest Money Details (EMD) : BG / DD payable to "Director JREDA, Ranchi"
ii) Amount of EMD with full details:
2. Whether the offer is valid for 180 days from the date of: Yes / No
opening of commercial / technical bid.
3. Rate of VAT/CST on the date of bid:
4. Whether JREDA's terms of payment are acceptable to: Yes / No
the bidder
5. Whether agreeable to JREDA's Penalty Clauses: Yes / No
6. Whether agreeable to JREDA's clause of warrantee: Yes / No
period
7. Whether Performance Security clause is understood: Yes / No
8. Indicate State, Central Sales Tax Registration Number: State -
Central-
(Please Note that in case of non-registration with
Commercial Tax, Department Purchase Tax as
admissible shall be deducted by the Purchaser from the Bills of the supplier)
9. whether Electrical contractor license issued from state of Jharkhand submitted by 9
Manufacurer/authorized agency: yes/No
10. Please mention whether rates offered are applicable for: Yes / No
part quantities.

PLACE :

SIGNATURE OF BIDDER
(NAME IN FULL)

DATE:

(DESIGNATION/STATUS)
(FIRM/COMPANY SEAL)

PART 'C' : TECHNICAL INFORMATION

(Strike off whichever is not applicable. Separate sheets should be used, wherever necessary)

1. Whether material offered is exactly as per technical specifications: Yes / No
2. Whether the copies of orders received during last 3 years from: Yes / No
Central / State Govt. Departments / Agencies / Boards / Corporations / PSUs/pvt. in the last 03 years i.e. FY2010 – 2013 for purchase of the LED Street Lights / LED Light Bulbs / LED High Mast Lights Only enclosed
(If yes, give details)
3. Whether completion certificate from such organization regarding: Yes / No
Supplies are enclosed.
(If yes, give details)
4. Whether pamphlets/technical details literatures along with: Yes / No
Drawing, etc. furnished with the offer
(If yes, give details)
5. Whether the bidder agrees to furnish product test certificates in: Yes / No
From Govt. approved lab.
6. Whether quoted items testing facilities available: Yes / No
If so, give details and in case of non-availability of facilities, indicate approved lab available where tests are proposed to be Conducted.

PLACE:

SIGNATURE OF BIDDER
(NAME IN FULL)

DATE:

(DESIGNATION/STATUS)
(FIRM/COMPANY SEAL)

Checklist of Technical Bid

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

To ensure that your tender submitted to JREDA is complete in all respects, please go through the following checklist & tick mark for the enclosures attached with your tender:

Sr. No.	Attachments	Attached	Remarks
Part-I			
1.A	Tender Fee		
1.B	Earnest Money Deposit (EMD)		
Part-II Technical Part			
1	Details of manufacturing unit or their authorization for the said tender		
2	The original document duly signed & sealed on every page, as a confirmation of acceptance of the terms & conditions of the document		
3	Details of similar work done in last three years along with copies of the orders and certificates from the clients.		
4	Details of local office or undertaking, regarding the same		
5	Declaration of the bidder about any relatives working with JREDA		
6	Details of turnover, plz. Attached C.A. certificate & document in proof of declaration		
7	Proof of Registration with any other Govt. agency		
8	Proof of PAN No./Service Tax Number/TAN No.		
9	Declaration letter on official letter head of bidder stating that "We are not black-listed by any Central/State Govt./Public Sector Undertaking in India" Duly signed by the authorized signatory with date & seal.		
Part-III Financial Bid			
1	Rates		

General Information about the Bidder:

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

1	Particular	
2	Type of Company (Pl. highlight/tick mark appropriate category and attach Proof of Company Registration.	-Individual/Proprietary Firm -Partnership Firm - Pvt. Limited -Others (Pl. Specify.....)
3	Professional Registration (Attach copies of certificate/proof)	-MNRE -BEE -Others
4	Postal Address	
5	Telephone/Fax No.	
6	E-mail address & URL	
7	Name and designation of the Respective of the Bidder to whom all reference shall be made to expedite technical co-ordination.	Mr..... (with contact details)
8	Amount and reference of the Earnest Money Deposit deposited.	Rs..... DD No..... Date..... Bank.....
9	Documents in proof of bidders eligibility	
10	Details of Technical manpower	
11	Details of Infrastructure & instruments Attach list	
12	Details of previous work Experience (including that with Government sector, if any)	
13	Has the company any relative, working in JREDA, if yes, state the name, designation & relationship.	
14	Year of Registration/Incorporation	
15	Service Tax Number	

(Sign & Seal of the Manufacturer)

Undertaking by the Bidder

NIB No.30/JREDA/BEE/SLS (LED)/2013-14

I/We have read carefully and examined the notice inviting tender, schedule, General Rules and terms and conditions of the contract, special conditions, Schedule of Rates and other documents and Rules referred to in the tender document for the supply.

I/We hereby tender my rates for the execution of the work for JREDA as specified within the time stipulated in the schedule in accordance with all aspects with the specifications, designs, drawings and instructions with such conditions so far as applicable.

I/We agree to keep the tender open for Six Months from the due date of submission thereof and not to make any modifications in its terms and conditions.

A sum of Rs. ----- is hereby forwarded as Earnest Money in the form of Bank Guarantee / crossed Demand Draft.

If I/We fail to commence or complete the work ordered in specified time, I/We agree that that JREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest Money absolutely. The said Earnest Money shall be retained by JREDA as the tender documents terms and conditions contained or referred to therein and to carry out such deviations as may be required by JREDA. I/We shall not claim any relaxation/exemption in Tender Document Fees / EMD at any stage of the tendering process.

I/We hereby declare that I/We shall treat the tender documents, specifications and other records connected with the work as secret/confidential and shall not communicate information derived there-from to any person other than a person to whom I/We have authorized to communicate the same or use the information in any manner prejudicial to the safety of JREDA /the State Govt.

I/We shall abide to all the laws and shall be responsible for making payments of all the taxes, duties, levies and other Govt. dues etc. to the appropriate Govt. departments.

Our state sales tax registration no. is _____ and CST registration No. _____.

The PAN No. under the Income Tax Act is _____

I/We shall be responsible for the payment of the respective taxes to the appropriate authorities and should I/we fail to do so, I/we hereby authorize JREDA to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

Dated:

Signature

Place: Name of Tenderer with seal

Witness

Signature

Name:

Postal Address:

Format for Covering Letter

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

(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: For implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with **three** years CMC on Complete system at the location for Randhir verma chowk (Machhli Ghar) to Booti More, Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system.

Sir,

We are hereby submitting our offer in full compliance with the terms and condition of the above NIB No. A blank copy of the tender, duly signed on each page is also submitted as a proof of our acceptance of all specifications as well as terms & Conditions. We have submitted the requisite amount of "Earnest Money" in the form of Bank Guarantee, valid for twelve months.

We confirm that, we have the capability to supply and install the required no of systems within scheduled period.

The tender is submitted in two separate and sealed envelopes marked **Part-I & Part-II**.

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

CHECKLIST OF ABSTRACT OF GENERAL TERMS AND CONDITIONS

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

Tender Specification No:

1. Name of the Work :-
2. Whether the bidder is a Manufacturer / Authorized dealer /
Authorized dealer of the Manufacturer & furnished relevant documents : Yes / No
3. Required Cost of Tender Furnished M.R / Bank Draft Details:
4. Required Earnest Money Furnished:- (Bank Draft Details to be furnished) -----
5. Whether agree to conduct demonstration and type test Yes / No
Whether submitted three sample LED Street Lighting Fixtures
with all accessories in working condition for demonstration Yes / No
Whether submitted type tests reports, LM79, LM80, IP65, etc. Yes/ No
6. Past supply experience including user's certificate furnished or not: - Yes / No
7. Audited annual reports along with Profit & Loss Accounts
for the last 3 years with turnover only from LED furnished or not: Yes / No
8. Deviation to the specification, if any furnished
Yes / No
9. Whether agreed to the Work Completion schedule: Yes / No
If agreed,
- 10 . Whether agreed to Guarantee Period:- Yes / No
11. Whether agreed for **180** days' validity period of Prices Yes / No
12. Whether the Prices are **FIRM**? Yes / No
13. Whether agreed to furnish security deposit in shape of
B.G. en-cashable Yes / No
14. Whether agreed to stipulated penalty for delay in completion: - Yes / No
15. Whether agreed to the standard terms of payment: Yes / No
16. PAN, VAT, Service Tax & CST documents furnished or not: Yes / No

Signature of the bidder

With seal of company

This form is to be duly filled up & ink signed by the Bidder along with seal & submitted along with the Part-I of tender.

Format for Undertaking to confirm having Capability & Resources
NIB No.04/JREDA/BEE/SLS (LED)/2014-15

To,

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

Dear Sir,

Sub: For implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with **three years** CMC on Complete system at the location for Randhir verma chowk (Machhli Ghar) to Booti More, Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system.

We certify that we have the resources and capability to supply and install the offered quantity within scheduled period. .

Signature of Chief Executive Officer/Managing Director

Date:

Note: The above response sheet should be signed and certified as true by the Chief Executive Officer/ Managing Director being full time Director.

Part-II PRICE BID

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

SL. No.	Description	Qty (in nos.)	Make/Model	Unit Cost	Total Price (In Rs.)
1	2				3
1	LED Street light Luminaries fitting of 90 watt (+3W) as per specification including all accessories with warranty for 5 years	362			
2	Microprocessor based light sensitive and astronomical ON OFF timer for group control of street lights with warranty for 5 Years	14			
3	Supply and installation of one phase static check energy meter with remote monitoring facility	14			
4	S/F 2*1.5 Sq.mm MSFR Copper wire	400mtr.			
5	Other charges if any				
	Total cost				

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

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

NB:

1. Quoted price are inclusive of all taxes & duties.
2. Price shall be firm.
3. Quantity of the above mentioned item may change as per requirement of site.

Information about the Bidding Firm**NIB No.04/JREDA/BEE/SLS (LED)/2014-15**

(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 jas per Annexure-10)	
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.	Sales Tax/Value Added Tax Registration Number (Attach proof)	
12.	Specify the Item Originally Manufactured (SPV module/Electronics/Battery) (Attach copy of Registration Certificate of Industry Department)	
13.	Details of in-house testing facility (Attach Proof)	
14.	Office/ Dealer and Service network in Jharkhand with TIN No.(Give details)	
15.	Quoted quantity	
16.	Particulars of Earnest Money	
17.	Place where Materials will be Manufactured	
18.	Place where Materials will be Available for Inspection	
19.	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)

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

FORMAT FOR ANTI-COLLUSION CERTIFICATE

Anti-Collusion Certificate

We do hereby certify and confirm that in the preparation and submission of our offer (s) for taking up dismantling of existing street lights, design, supply, installation, commissioning of LED street light systems with all fixtures, fittings compatible with existing poles and related works along with supply and installation of microprocessor based light sensitive and astronomical ON OFF timers to switch on/off and control the street lights at predetermined time of the street light segments of Jharkhand with five years annual maintenance support on a turnkey basis as per detail scope of work of the tender document,, we have not acted in concert or in collusion with any other Bidder or other person(s) and also not done any act, deed or thing which is or could be regarded as anti-competitive and foul play.

We further confirm that we have not offered nor will offer any illegal gratification in cash or kind to any person or agency in connection with the instant Proposal.

Dated thisDay of, 2014

..... (Name of the Bidder)

..... (Signature of the Authorized Person)

..... (Name of the Authorized Person)

PART A
GUARANTEED TECHNICAL PARTICULARS
(TO BE SUBMITTED BY THE BIDDER)

LED STREET LIGHTS

Sr. No.	Specifications	Required Value	Guaranteed value offered by the bidder
1	Total Array LED Wattage (Rated Wattage)	90W (+/-5%W)	
2	Total System Wattage (Luminary Wattage)	≤ Rated Wattage X 1.15	
3	System Power Efficiency	> 85%	
4	Operating Temperature Range	-20 °C to +50 °C	
5	Operating Humidity	10% to 90% RH	
6	Usage Hours	10 o 12 hours per day	
7	Luminary Angle	Horizontal 130° (±3°) and vertical 50° (±3°)	
8	LED Make*	Nichia / Osram / Philips Lumileds / Cree	
9	LED Efficacy*	> 120 lumens / watt	
10	LED Drive Current*	≥ 350 mA	
11	LED Assembly	<ul style="list-style-type: none"> • SMD • LEDs must be mounted on Copper MCPCB for high thermal conductivity and fastest heat transfer from the LED junction 	•
12	Junction Temperature	< 80 °C	
13	Color Temperature	5500- 6500 °K	
14	Color Rendering Index	> 70	
15	Uniformity Ratio	> 0.4	
16	Luminaire Efficacy	> 92 lumens / watt	
17	Total Lumen Output	≥ 9200 lumens	
18	Lumen Maintenance	70% over 50000 hours	
19	Luminaries body temperature after 12 hours of continuous operation	≤ 30 °C from ambient	
20	Earth Resistance	< 0.5Ω	
21	Luminary Housing	<ul style="list-style-type: none"> • Pressure Die Cast Aluminum housing with corrosion resistant polyester powder coating & safety as per IEC60598 / IS 10322 • Suitable for side entry mounting for 50mm to 60mm OD pipe bracket complete with bracket & locking bolt • Good thermal management system should be provided with suitable large surface area with fins to dissipate the heat to ambient air and block any accumulation of dust / water. • Luminaire should be made up of 2 light modules with 2 individual drivers for each module (one driver should operate one module). 	•
22	Operating Voltage	230+/-40%V AC	
23	Operating Frequency	50 Hz to 60 Hz	

24	In-Built Protections	<ul style="list-style-type: none"> • Surge Protection – 4kV • Over voltage protection – protected from 110 to 140% of rated output voltage • Short circuit protection – Constant current limit mode • Over temperature protection – Auto shut off 	
25	Optics	<ul style="list-style-type: none"> • Secondary lens array should be provided for optimized roadway photometric distribution. Photometric measurements in accordance with LM-79/IS16105 • Lens material should be optical high grade PMMA with more than 90% light transmittance 	
26	Compliance	<ul style="list-style-type: none"> • Surge Protection - EN61000-4-5 • LED Luminary Safety & Reliability - IEC60598 • Power Harmonics - EN61000-3-2, Class C • Luminary – LM 79@ • LED CHIP – LM 80@ • RoHS for LED • CE & UL certificate 	

(NB: All details are to be filled in by the bidder failing which the bid may treated as non responsive and liable for rejection)

Bidder's Signature
with Seal

N.B:

1. For values not available in relevant IS; values indicated in the GTP/ Tender specification shall be valid.
2. In case of discrepancies between values of IS and GTP, the better will prevail.
3. Pertinent type test reports, literatures, catalogue, photometry etc. as required to substantiate the above, and List and index for comprehensive reference should be attached.

**PART B
GUARANTEED TECHNICAL PARTICULARS
(TO BE SUBMITTED BY THE BIDDER)**

Microprocessor Timer

Sl No.	Parameters	Guaranteed value offered by the bidder
1	14/16 G RRCA sheet steel fabricated box	
2	Make/Brand of the Microprocessor Timer	
3	Ratings (Min. 10 kVA, 20 A Single Phase)	
4	Overload & short circuit protection. (Should be provided)	
5	Real time clock with 5 years batter life (should be provided)	
6	Light sensitive control (lux based control for automatic switching on/off control based on ambient lighting condition so that the lights operate only during nights)	
7	EPROM for data storage (should be provided)	
8	Auto computation of Sunrise & Sun set timings (should be provided)	
9	Individual day profile settable for 365 days of the year	
10	LCD display with backlit function	
11	IP 65/66 complaint for outdoor usage.	

Bidder's Signature with Seal

N.B:

1. Bidder shall also submit the technical particulars for the microprocessor based light sensitive and astronomical ON OFF timer & the Cables with make, IS Standard etc. with Technical Part of the Bid.
2. For values not available in relevant IS; values indicated in the GTP/ Tender specification shall be valid.
3. In case of discrepancies between values of IS and GTP, the better will prevail.
4. Pertinent type test reports, literatures, catalogue, etc. as required to substantiate the above, and List and index for comprehensive reference should be attached.

PART C
GUARANTEED TECHNICAL PARTICULARS
(TO BE SUBMITTED BY THE BIDDER)

Static Check Energy Meter; the rating of kWh meter should be as follow:

Sl No.	Parameters	Details	Guaranteed value offered by the bidder
1	Supply voltage	Three Phase, 240 AC (Phase to Neutral), 415V AC (Between phase)	
2	Current range (basic)	10A	
3	Max. current	600% of basic current	
4	Current rating	10-60A	
5	Class of accuracy	1.0 (No drift in tolerance of accuracy for 10 years)	
6	Starting current	0.2 % of basis current at unity power factor	
7	Power factor range	0 to 1 (Lagging & Leading)	
8	Power loss	As per ISS-13779	
9	Resistance to surge voltage	>6kV peak As per ISS-13779	
10	1.2/50 Micro sec.	IEC-62053-21:2003/CBIP-88	
11	Test voltage of 50 Hz for 1 Min.	2kV rms	
12	Clock time accuracy	+/-5 ppm at 25°C	
13	Temperature rise	As per ISS-13779	
14	Power consumption by meter	As per ISS-13779	

Bidder's Signature with Seal

N.B:

1. Bidder shall also submit the technical particulars for the microprocessor based light sensitive and astronomical ON OFF timer & the Cables with make, IS Standard etc. with Technical Part of the Bid.
2. For values not available in relevant IS; values indicated in the GTP/ Tender specification shall be valid.
3. In case of discrepancies between values of IS and GTP, the better will prevail.
4. Pertinent type test reports, literatures, catalogue, etc. as required to substantiate the above, and List and index for comprehensive reference should be attached.

Declaration by the Bidder

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

(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:

Format for Submitting Bank Guarantee for Earnest Money

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

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

To,
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.

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.: **04/JREDA/BEE/SLS (LED)/2014-15**".

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. : **04/JREDA/BEE/SLS (LED)/2014-15**" in this regard, shall be final and binding on us and we shall not be entitled to question the same.
3. Notwithstanding anything contained in the foregoing, our liability under this Guarantee shall be restricted to Rs. (Rupees only).
4. This Guarantee shall remain valid and in full force and effect up to (Date) and shall expire thereafter unless an intimation is given to the Bank by you earlier in writing discharging us from our obligation under this Guarantee.
5. We shall not revoke this Guarantee during its currency except by your consent in writing.
6. This Guarantee shall not be affected by any change in the constitution of the Supplier/Tenderer or yourselves or ourselves but shall ensure to your benefit and be enforceable against our legal successors or assignees by you or your legal successors.
7. Notwithstanding anything contained herein above unless a demand or claim under this Guarantee is made on us in writing within six months from the date of expiry of this Guarantee we shall be discharged from all liabilities under this Guarantee thereafter.
8. We have power to issue this Guarantee under our Memorandum and Articles of Association and the undersigned who is executing this Guarantee has the necessary power to do so under a duly executed Power of Attorney granted to him by the Bank.

Signed and Delivered

For and on behalf of Bank.

(Banker's Name)

Name of Bank Manager:

Address

.....

Format of Power of Attorney for Signing Bid
NIB No.04/JREDA/BEE/SLS (LED)/2014-15

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 implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with **three years** CMC on Complete system at the location for Randhir verma chowk (Machhli Ghar) to Booti More,Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system, 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

Accepted

..... (Signature)

(Name, Title and Address of the Attorney)

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

Format For Financial Requirement – Annual Turnover
NIB No.04/JREDA/BEE/SLS (LED)/2014-15

[On the letterhead of Bidding Company]

To,

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

Dear Sir,

Sub: For implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with **three years** CMC on Complete system at the location for Randhir verma chowk (Machhli Ghar) to Booti More,Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system.

We certify that the Bidding Company had an average Annual Turnover of Rs. -----
----- based on audited annual accounts of the last three years ending
31.03.2013/2014 for lighting Systems.

Authorised Signatory
(Power of Attorney holder)

Statutory Auditor
(Stamp & Signature)

Date:

Format For Financial Requirement - Net Worth Certificate

NIB No.04/JREDA/BEE/SLS (LED)/2014-15

[On the letterhead of Bidding Company]

To,

Director

Jharkhand Renewable Energy Development Agency

3rd Floor, S.L.D.C. Building,

Kusai Colony, Doranda,

Ranchi- 834002.

Dear Sir,

Sub: For implementation of high impact energy efficient street lighting system by undertaking replacement of existing street lighting fixtures with LED street lights, installation of automatic lighting control and associated systems along with three years CMC on Complete system at the location for Randhir verma chowk (Machhli Ghar) to Booti More, Ranchi District of the state of Jharkhand to promote and demonstrate energy conservation and energy efficiency in street lighting system..

This is to certify that Net worth of _____ {insert the name of Bidding Company}, as on 31st March 2013/2014 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 2013/2014	

Authorised Signatory
(Power of Attorney holder)

Statutory Auditor
(Stamp & Signature)