

AMENDED NOTICE INVITING TENDER

For

The Rate Contract for

**Design, Manufacture, Testing, Supply, Installation & Commissioning of
1.0 kWp & 2.0 kWp Capacity SPV Power Plants in Panchayat & Block
offices of various districts of Jharkhand on Turnkey basis including 5
years CMC on the complete system**

NIT NO: JREDA/SPP/PANCHAYAT&BLOCK/01/2012-13

Under

**Solar Photovoltaic Programme
for the Financial Year 2012-13**



- 1) Last date of BID Submission : 22-09-2012 till 3:30 P.M.
- 2) Date of BID Opening : 22-09-2012 at 4:00 P.M.
- 3) Total Pages : 27

Jharkhand Renewable Energy Development Agency (JREDA)

328/B, Road No. 4, Ashok Nagar, Ranchi.

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Contents

Sl. No	Description	Page No.
1	Invitation for Tender for Rate Contract	02
2	Particulars of tender	05
3	Instruction to Bidder	06
4	General Terms and Conditions	10
5	Technical Specifications of 1.0 & 2.0 kWp Plant	15
6	Format for Covering Letter--+	18
7	Checklist of Annexures	19
8	Information about Bidding Firm (Proforma-I)	20
9	Declaration by the Bidder (Proforma- II)	22
10	Technical Detail Form (Proforma-III)	23
11	Price Bid (Performa-IV)	24
12	Proforma-V	25
13	Proforma –VI	26
14	Proforma-VII	27

Invitation of Tender for Rate Contract for

Design, Manufacture, Testing, Supply, Installation & Commissioning of 1.0 & 2.0 kWp Capacity SPV Power Plants in Panchayat & Block Offices in all districts of Jharkhand on Turnkey basis Including 5 years CMC on the complete system.

Preamble

As part of Solar Photovoltaic Programme, JREDA invites “Tender for rate contract to implement the Design, Manufacture, Testing, Supply, Installation & Commissioning of 1.0 & 2.0 kWp Capacity SPV Power Plants in Panchayat & Block Offices in all districts of Jharkhand” for short listing of experienced & eligible SPV Power Plant System Integrators and leading Manufacturers of India to whom work shall be allocated for successful execution of the project in a defined time frame.

ELIGIBILITY CONDITIONS

A. Minimum Eligibility Conditions:

- 1. The bidder should be a Registered PV System Integrator or Manufacturing Company of SPV cells or Modules or Battery or PV System Electronics conforming to relevant National/ International Standards. Authorized dealers and subcontractors are not eligible to participate.**
- 2. A company incorporated under India Company's Act or MSME (Micro, Small & Medium Enterprises) existing for past three audited years is eligible on standalone basis.**
- 3. Registered MSME of Jharkhand should submit an Affidavit from Notary Public that they are PV System Integrator.**
- 4. At least one SPV Power Plant of minimum 1.0 KWp capacity should have been supplied, installed and commissioned in the past 2 years to any SNA / Govt. organization / PSU from the date of submission of the Tender except for new MSME units of Jharkhand.**
- 5. The offered PV Modules should be as per IEC Standards and having test certificates prescribed by MNRE.**
- 6. Power Conditioning Unit (PCU) should preferably confirm to IEC 61683 standards or equivalent BIS standards.**
- 7. The Inverter should be from Indian manufacturer and the bidder should confirm the performance of Inverter/PCU as per MNRE requirements/specifications supported by MNRE approved Test Report and it should be valid as on the date of the tender opening.**
- 8. Batteries shall be tested for IEC 61427 and valid test reports to be submitted along with the Bid.**
- 9. The Bidder should have valid CST/State VAT/ TIN registration certificate. A copy of which should be enclosed.**
- 10. The bidder should confirm that they have the resources and capability to supply and install not less than 8% of the offered quantity per month in the form of an undertaking.**

11. For general bidder the minimum average annual turnover required is Rs. 5.0 crores in the past 03 financial years for SPV systems. Association/ Consortium are also eligible.

12. For an Association/ Consortium, the turn over & technical credentials of the lead member of the Consortium/Association shall be considered for purpose of eligibility and evaluation.

13. For MSME registered with GOJ should have the average annual turnover of Rs. 1.5 crores for SPV systems.

14. The bidders should not quote less than the capacity of 200 kWp.

MSME bidders located and registered with GOJ are eligible to get the benefit as per clause 18.1 (ii) (d) of the Jharkhand Industrial Policy 2012 . 5% of the MSME quota shall be earmarked for New Units of the State as per the Administrative Approval of SPV Programme of MNRE 2005-06 provided they have valid certificates. The supplier would be treated new only if it has not supplied any SPV Power Plant System to any State Nodal Agency under MNES SPV Programme so far. Such supplier shall have to submit an undertaking stating that their unit is New as they have not supplied any such systems in the past.

Only those Bidders, who shall meet the above Criteria, shall be considered for further technical evaluation and assessment.

Technical Evaluation: Only Technical Proposals conforming to minimum eligibility criteria will be taken up for detailed technical evaluation. JREDA shall evaluate the Proposals submitted by Respondents for a detailed scrutiny. During evaluation of Proposals, JREDA, may, at its discretion, ask the Respondents for clarification of their Proposals. The process for evaluation of Proposals is as given below:

Sl. No.	Criteria *	Points
1	The bidder has ISO 9001 certification	10
2	The bidder is MNRE accredited Off-Grid Channel Partner or a P.S.U. or MSME registered with GoJ.	10
3	The average turn over of the Bidder in last 03 years <ul style="list-style-type: none"> • Up to Rs. 5.0 Crore • From Rs. 5.0 -7.5 Crores • More than Rs. 7.5 Crores 	Max. 15 marks 05 10 15
4	Experience of the bidder in Supply, Installation & Commissioning of PV Power Plants <ul style="list-style-type: none"> • Up to 5 nos. • 5 to 100 nos. • 100 to 250 nos. • 250 to 500 nos. 	Max. 20 marks 5 10 15 20
5	Technical Manpower Qualification (The bidders should specify the exact number of technical manpower, for one Engr. 2 marks, for diploma 1 mark and for ITI 0.25 mark will be applicable) . The bidders should enclose the attested copies of salary sheet and qualification proof of each technical personnel. These personnel must be working in the company at least one year.	Max. 20 marks 20
6	No. of years of Experience in installation of Solar Power Systems including solar lanterns, solar home lights and solar street lights . <ul style="list-style-type: none"> • 3 – 5 years • > 5 years 	Max. 15 marks 15 10 15
7	Timely completion of PV Power Plants as mentioned in column 4. Max. 10 marks	10

* All points must be supported by valid documentary evidences.

Evaluation Method: Eligibility documents of all the bidders will be examined first. Technical bids of only those bidders, who have eligibility criteria shall be evaluated technically. Based on the above-mentioned criteria (as shown in table) Technical Score for each bidder shall be calculated and uploaded on JREDA Website. If any bidder has any grievance he can represent within three days and JREDA will respond to their grievances before opening of financial bids. Only bids having a Technical Score of 60 marks or more shall be qualified for the next stage: i.e. opening of the Financial Bid. The bidder obtaining a Technical Score less than 60 marks shall be disqualified and their respective Financial Proposal shall not be opened. For MSME of Jharkhand the required minimum technical score shall be 50. New MSME units of Jharkhand are exempted from technical evaluation but they will have to submit all the relevant documents.

Empanelment procedure:

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

JREDA will allot the quantum of work to L1 bidder on the basis of his competence (financial capability, manufacturing capacity, manpower etc) to complete the execution of work on time. If required, the remaining work will be then offered to L2 bidder at L1 rate, and so on.

Since, this work is not procurement of materials only and requires execution of civil, electrical and other related works including five years Comprehensive Maintenance Contract (CMC), the section 18 of Jharkhand Industrial Policy 2012 is not applicable ipso facto. However, JREDA has decided as a special encouragement for MSME registered in Jharkhand to extend the provisions of section 18.1 (ii) (d) of Jharkhand Industrial Policy 2012 for work allocation under the tender. For this purpose a separate empanelment of MSME registered in Jharkhand will be prepared provided the condition of section 18.1 (ii) (d) are fulfilled and same procedure will be followed in the allocation of work in the preceding paragraph. For new units of Jharkhand, 5% of the MSME quota shall be earmarked.

Particulars of Tender

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

1.	Nature of work	Design, Manufacturing, Testing, Supply, Installation and Commissioning of 1.0 & 2.0 kWp Capacity SPV Power Plants in Panchayat & Block Offices in all districts of Jharkhand on Turnkey basis including 5 years CMC on the complete systems
2	Tentative Quantity	<ul style="list-style-type: none"> • Solar Photovoltaic Power Plant of 1.0 kWp – 4423 Nos. • Solar Photovoltaic Power Plant of 2.0 kWp – 260 Nos. No bidder shall submit bid less than 200 nos. of SPV Plants.
3	Cost of Bid document (Non-refundable)	❖ Rs.10,000/- (Rupees Ten Thousands only) for General Bidder. ❖ Rs. Nil for MSME located and registered in the state of Jharkhand.
4	Earnest Money Deposit	❖ Rs.25,00,000/- (Rupees Twenty Five Lakhs only) for General Bidder for 500 kWp capacity only. In case of bids for lower/higher number of plants, EMD in the same proportion shall be applicable. ❖ Rs. Nil for MSME located and registered in the state of Jharkhand.
5	Time of completion	Twelve months from the date of issue of purchase order/ intimation.
6	Validity of Rate of Contract for acceptance	Six months from the date of opening of Technical Bid of Bidder
7	Pre-bid meeting	05.09.2012 at 3.00 P.M.
8	Date of commencement and time of Issue of bid documents	22-08-2012 from 10.00 am to 5.30 pm on all working days
9	Last date & time of submission of bids document	22-09-2012 till 3:30 P.M.
10	Date & time of opening Eligibility bid Part-I	22-09-2012 at 4:00 P.M.
11	Date & time of opening technical bid Part-II	24-09-2012 at 3:30 P.M.
12	Place of issue and submission of bid documents and address for communication	Jharkhand Renewable Energy Development Agency(JREDA) Plot No. 328/B, Road No.4,Ashok Nagar Ranchi- 834002 Ph.No: 2246970,Fax No: 0651-2240665 Web site: www.jreda.com E-mail: info@jreda.com

Instruction to Bidder

Jharkhand Renewable Energy Development Agency (JREDA), Ranchi invites offers from eligible Indian bidders for the rate contract for the mentioned work with your best bidding 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 **27** pages. 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 submitting a Demand Draft 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".
- 2.2 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 Part – I (Technical Bid).
- 2.3 Bid applications without the cost of bid document will be rejected.

3. Earnest Money

- 3.1 Bidders shall submit in Part – I (Technical Bid) the earnest money in the form of Demand Draft or Bank Guarantee of requisite value as mentioned in "Particulars of Tender". The Bank Guarantee shall be made in favor of "Director, JREDA" payable at Ranchi from any Indian Nationalized bank/Scheduled bank.
- 3.2 The bank guarantee shall remain valid for 12 months.
- 3.3 Bidders seeking concession/exemption from submission of cost of bid document and/or earnest money, shall have to submit an attested photocopy of relevant MSME of Jharkhand certificate as applicable, in Part – I of the bid application. ***Non submission of relevant certificate will lead to rejection of bid.***
- 3.4 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).
- 3.5 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 shall have to get approved by Director, JREDA. This approval shall also have a cut-off date by which the entire work shall have to be completed.

4 Security Deposit / Performance Guarantee

- 4.1 Successful general bidders shall submit a security of deposit 10 % in the form of bank guarantee of the allotted work order value on or before 25 days from issuing of work order.
- 4.2 The Security Deposit shall be refunded after expiry of 60 days from the actual date of installation & commissioning.
- 4.3 The Security Deposit shall be submitted in the form of bank guarantee in favour of “Director, JREDA” payable at Ranchi from any Indian Nationalized bank/Scheduled bank.
- 4.4 Non submission of Security Deposit within the time frame, shall lead to forfeiture of EMD and cancellation of LOI/LOA.
- 4.5 2% of the allotted work value shall have to be deposited by successful bidders as performance guarantee which shall be released at the end of the CMC period in view of the importance of tender to all, including MSMEs.

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 and one soft copy, including minutes of meeting(s), issued by JREDA, if any, shall be signed and submitted along with the bid.
- 5.4 All the Performa must be on the bidder’s official letterhead (if specified). 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. The person signing the offer shall initial such corrections.
- 5.6 Complete bid document including all enclosures should be submitted in hard bond or spiral binding and all pages should be numbered (except leaflet/catalogue) and must be signed by the company’s authorized signatory with seal of the company otherwise bid will be rejected.
- 5.7 The bidders should submit the bid in three envelopes, The Part–I (Eligibility documents), Part-II (Technical bid) and the Part – III (Price Bid) should be sealed in separate envelopes and all these envelopes should be sealed in a fourth envelope. The Part – III (Price Bid) of only such bidders would be opened who qualify in the Part – I (Eligibility documents) and Part-II (Technical bid).
- 5.8 The Part–I (Eligibility documents) should be sealed in an envelope super scribed (i) NIT NO. (ii) “Part–I Eligibility documents”,

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- 5.9 The Part-II (Technical Bid) should be sealed in an envelope super scribed (i) NIT NO. (ii) "Part-II 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 :
Copy of Money Receipt if bid document purchased from JREDA office or
Original Demand Draft if bid document is downloaded from JREDA website.
 - (ii) Original earnest money (if applicable) in the form of DD or bank guarantee of requisite value.
 - (iii) Copy of registration certificate of the firm.
 - (iv) For availing concession/exemption in submission of cost of bid document and earnest money by Jharkhand based MSME units should submit attested copy of relevant registration certificate.
 - (v) Declaration by the bidder (Proforma- II)
 - (vi) Proforma- I
 - (vii) Proforma - III
 - (viii) Check list of Annexure
- 5.10 Part -II (Technical Bid) should not contain price of any items. Such cases, even if found anywhere, shall not be given any cognizance.
- 5.11 Part - II (Technical Bid) should be submitted in original plus 1 copy (1+1)
- 5.12 The Part-III (Price Bid) should be sealed in an envelope super scribed NIT No., "Part - III Price Bid", Name and address of the contact person of the bidding firm, and should be addressed to Director, JREDA. This envelope should contain the following :
- (i) It should contain only Proforma - IV duly filled, signed and stamped by authorized signatory of the bidder.
- 5.13 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.
- 5.14 The price bid should not contain any technical matter or other matter except price. The date of opening of the price bid will be notified after opening of Technical bid.
- 5.15 Part - III (Price Bid) should be submitted in original only (1+0).
- 5.16 All, Part-I, Part - II and Part - III of the bid document should be sealed in a fourth envelope. The fourth envelope should be sealed and super scribed (i) NIT No., (ii) "Offer for Supply, Installation and Commissioning of 1.0 & 2.0 kWp Capacity SPV Power Plants in Panchayat & Block Offices" (iii) Name and address of the contact person of the bidding firm, and (iv) Should be addressed to Director, JREDA, Plot No. 328 B, Road No. -4, Ashok Nagar, Ranchi-834002.

6.0 Authority of Person Signing the Documents

- 6.1 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.

7.0 No Claim or Compensation for Submission of Tender

- 7.1 The bidder whose bid is not accepted shall not be entitled to claim any costs, charges or expenses in connection with his submission of bid, even though JREDA may decide to withdraw the Notice Inviting Tender.

8.0 Validity of Offer

Unless otherwise specified, the bidder shall keep his tender valid initially for a period of Six months from the due date of submission of the bid.

9.0 Other Terms & Conditions

- 9.0 *MSME bidder from Jharkhand shall have to furnish a certificate issued from Department of Industries stating that the unit is functional or affidavit stating that the unit is functional duly Notarized by the Notary Public.*
- 9.1 *Bidders claiming for exemption/ concession either in the cost of bid documents or EMD should enclose an attested registration certificate by the Govt. of Jharkhand.*
- 9.2 Insertion, post-script, addition and alteration shall not be recognized unless confirmed by bidder's signature and stamp.
- 9.3 Incomplete tender or tenders not submitted as per requirement as indicated in the NIT are likely to be rejected.
- 9.4 Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation.
- 9.5 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.
- 9.6 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.
- 9.7 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.
- 9.8 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.
- 9.9 No postal transaction shall be entertained for obtaining bid documents.
- 9.10 Issuance of bid documents shall not construe that the bidders would be automatically considered qualified.

General Terms & Conditions

1.0 Introduction

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

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

2.0 Scope of work

The general scope of work under this rate contract includes design, manufacture, supply, total system integration, shop testing, inspection, packing & forwarding, transportation up to project site, loading & unloading, storage in safe custody, erection, carrying out preliminary tests at site, connecting system to the load points using cable (wiring) and sockets, commissioning, performance testing & handing over to the Panchayats/Blocks, all the equipment installed including the insurance coverage from the concept to commissioning including operation and comprehensive maintenance contract.

3.0 Bid documents

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

4.0 Price

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

5.0 Inspection of the factory and Tests

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

6.0 Payment terms and conditions

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

- (a) 60% of the Contract Price shall be paid against supply and delivery of goods in full and in good condition as certified by /Mukhiya /Panchayat Sewak/BDO & 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 receipted delivery challan/ transportation challan/lorry receipt.
 - iii. **Duly filled Proforma – VI.**
 - iv. Photographs of all the equipments (materials) at destination with signature & seal of Mukhiya /Panchayat Sewak/ BDO. This record should be kept in the office of Mukhiya//Panchayat Sewak /BDO for verification.
- (b) 30% of the Contract Price shall be paid against installation, testing & commissioning after submission of following documents:
 - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
 - ii) Duly filled Proforma – VII.
 - iii) Certificate for minimum seven days of satisfactory performance.
- (c) 2% of the Contract Price shall be paid on completion of every one year period of the 5 year CMC period, after submission of following documents:
 - i) Copy of Original Commercial invoice raised at the time of supply in triplicate (1+2).
 - ii) Submission of quarterly reports of CMC undertaken by the manufacturer.

However, 10% of the contract value will be released against submission of Bank Guarantee of the requisite value for the complete CMC Period.

7.0 Dispatch Instructions

All items/equipments shall be subject to pre-dispatch inspection by JREDA or its authorized representatives before their dispatch. The manufacturer will submit test report with regard conformity to technical specifications for the items to be dispatched to JREDA. However, equipments will be dispatched only after the receipt of “Dispatch Clearance” from JREDA after acceptance of test report. No consignment shall be dispatched without the receipt of dispatch clearance from JREDA.

8.0 Liquidated damages for delay in completion

If the supplier fails in the due performance of the contract to deliver any part of the equipment or complete the work within the time fixed under the contract or any extension thereof granted to him by JREDA and/or to fulfill his obligations in time under the contract, he shall be liable to pay to JREDA 2% of the gross value for the delay of first four months, 4% for the delay of eight months and 6% for the delay of twelve months.

9.0 Risk & cost:

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

10.0 Insurance

The supplier shall arrange for transit and erection insurance of the materials & equipments for setting up of Solar Photovoltaic Power Plant.

11.0 Assignment/ Sub-letting

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

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

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 and submit a copy of the MoU to JREDA. 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.

12.0 Completeness of Tender

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

13.0 Compliance with regulations

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

14.0 Agreement

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

15.0 Income Tax

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 income tax authorities on account of the supplier. JREDA shall provide the supplier a certificate for such deductions of tax.

16.0 Five Years Comprehensive Maintenance Contract (CMC)

The SPVPP system contract price includes the provision of 5 years mandatory Comprehensive Maintenance Contract (CMC). To ensure long term sustainability of the system, the bidder should provide his representatives name, full address, mobile number and photographs to JREDA with one hard copy as well as the names and contact details of all technicians should also be provided.

The Comprehensive Maintenance Contract shall include servicing & replacement guarantee for parts and components (such as battery, electronics, Inverter, PV modules and other hardware) of Solar Photovoltaic Power Plant for five years from the date of installation. For PV modules, the replacement guarantee is for fifteen (25) years. Battery should be warranted for a minimum life of 5 years. The date of CMC maintenance period shall begin on the date of actual commissioning of Solar Photovoltaic Power Plant. It is mandatory for the technician to visit the site once in every month. CMC documents should be certified by Mukhiya//Panchayat Sewak /BDO.

16.1 Preventive/Routine Maintenance

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

16.2 Breakdown/Corrective Maintenance

16.2.1 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.

16.2.2 For carrying out the CMC effectively, the Bidder/Manufacturer shall establish Common Service Centre (CSC) near the district headquarter.

17.0 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.

18.0 Arbitration

All disputes would be settled within Ranchi jurisdiction of court of law only. All arbitration cases would only be settled under Arbitration & conciliation Act but at Ranchi only.

Technical Specification of Solar Power Plant of 1.0 and 2.0 kWp capacity

1. General Description & Configuration:

The Solar Photovoltaic Power Plant shall have capacity of 1.0 & 2.0 kWp to cater the electricity demand of 5-6 hours duration/day. The system should have the autonomy of 2 consecutive sunless days and shall have the provision of charging battery bank through mains as well. It should be designed such that during sunny hours the loads are fed from SPV Power Plant in addition to battery charging. The Power Plant shall provide a reliable and independent power supply at a voltage and frequency levels to suit the grid voltage and frequency.

A typical Solar Photovoltaic Power Plant comprises of PV module for charging the battery, solar deep charging battery for storage, a Charge Controller for intelligent charging, discharging & protection of the battery, an Inverter for conversion from DC to AC and complete set of hardware for proper performance and functioning of the system.

2. Major components and sub-systems of Solar PV Power Plant

- a. Solar PV modules and array
- b. Module mounting structures for Solar PV Modules
- c. Junction Boxes.
- d. Power Conditioning Unit
- e. Battery Bank with Accessories
- f. Cables and installation accessories
- g. Earthing and lightning protection

3. Transmission and distribution voltage:

For the Power Plant: The output voltage shall be 230V, 1-ph, 50 Hz supplied by single inverter.

4. Solar PV modules and array

As per the MNRE specifications, the PV modules must conform to the latest editions of IEC 61215. **The bidder shall submit appropriate IEC certificate.** Each **Solar module shall have the Peak Power rating of not less than 125Wp.** Each PV module must use a RF identification tag (RFID).

Warranty of PV module:

PV modules used in solar power plants/systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 12 years and 80% at the end of 25 years.

- The following details shall be screen printed in indelible ink or thermal sticker on the back side of each PV module so as to be clearly visible from the back side:
 - (a) Solar Photovoltaic Program 2012-13.
 - (b) NIT No. _____
 - (c) Not for sale or transfer
 - (d) Statutory action would be taken by JREDA, if it found sold or transferred under different Sections of IPC.

5. Module Mounting Structure

Module mounting structure should be as per MNRE specifications. The structures shall be compatible for on roof and on ground installation (Bidder awarded with Work-order for specific location shall visit where the installation is to be done).

6. Junction Boxes

The junction boxes shall be as per MNRE specifications.

7. Cables and accessories

All the cables and accessories including Switches/Circuit Breakers/Connectors shall be as per MNRE specifications.

8. Earthing and Lightning Arrestor

The SPV Power Plant should be provided with lightning and over voltage protection. The principal aim in this protection is to reduce the over voltage to a tolerable value before it reaches the PV or other sub-systems components. The source of over voltage can be lightning or any other atmospheric disturbances.

The array structure of the PV yard shall be grounded properly using adequate number of earthing kits. All metal casing / shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

9. Battery room and control room

The control room & the battery room shall be provided by the end users.

10. Spares & Inventory

- After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the contractor for maintenance purpose. A list of tools supplied must also be furnished by the contractor.
- A list of requisite spares to keep the system in operation without any breakdown shall be supplied along with the equipments.
- A minimum set of spares shall also be maintained for the entire period of warranty and operation & maintenance.
- Any other items for smooth & proper functioning of the system.

11. Quality and adaptability of the equipment

Interested Companies must verify the grid behavior, solar insolation levels and general site conditions on their own before bidding. The bidder shall accordingly ensure that the equipment and the design submitted shall be able to perform as per guaranteed performance levels in the available site conditions. The design of the plant and the equipment offered shall be evaluated for its quality and adaptability to the site conditions.

12. Manpower Training

The supplier/contractor shall train the users for the operation & maintenance of the plant.

13. Power Conditioning Unit (PCU) – 48V, 1KVA & 48V, 2KVA

Power Conditioning Unit (PCU) provides an un-interrupted AC power using battery Bank. Array output will be fed to PCU which consists of Charge Controller, Inverter, Voltage Stabilizer and distribution panel along with necessary Displays, Indicators and Alarms. The power conditioning unit shall convert DC Power by SPV modules and store in battery bank and good quality AC Power. Power Conditioning Unit (PCU) should preferably conform to IEC 61683 standards or equivalent BIS standards. ***The inverter should be from Indian Manufacturer. However, Interested Companies should enclose an undertaking that the PCU supplied conform the performance as per MNRE requirements/specifications.***

Common Technical Specification:

- Switching device IGBT/MOSFET Type MPPT based charger to charge 48 V(nominal) battery bank with >90% solar charge controller efficiency
- Input voltage from PV array 48 V (nom)
- It shall have MCB of suitable rating for connection and disconnection of PCU from load.

Protections:

- Short circuit protection
- Input under voltage / Deep discharge of battery
- Input surge voltage protection
- Over current
- Battery reverse polarity protection
- Solar array reverse blocking diode (provided in array junction box)
- DC rated fuse at input and AC rated fuse at output with suitable contactor/solid-state switches for safe start-up & shutdown of system
- Ambient operation (max) 50 degree Celsius
- Relative humidity 95% maximum
- Assembly & mounting as per normal industry practice
- Finish Epoxy powder coating
- Load test at factory minimum 6 hours at full load

Features

- Bi-directional type inverter 1KW / 2 KW with mains Battery charging current of 35 A / 70 A
- Stand-alone and hybrid mode of operation.
- High quality with high efficiency and reliability
- Microprocessor based intelligent controller
- Self monitoring capability and status monitoring through GPRS.
- Highly reliable & efficient solid-state switching devices
- Rated for continuous operation at full load
- High over-load capability of 200% surge for 10 seconds
- Inverter output power factor of 0.8 lag
- Efficiency : $\geq 90\%$ at rated load and normal operating conditions
- Output voltage 230V +/- 1%
- Output frequency 50Hz ± 0.5 Hz
- Indications:
 1. Inverter ON
 2. Grid ON
 3. Array ON
 4. Inverter Under Voltage /Over Voltage
 5. Inverter Overload
 6. Battery Low
- Enclosure IP 30 (For indoor application)
- Battery Ah monitoring
- Temperature compensated battery charging feature for Tubular Gel battery

8. BATTERY BANK [48V, 200Ah for 1.0kWp and 48V, 400Ah for 2.0kWp Solar Power Plant]

- The batteries shall be for SPV application and shall be VRLA tubular Gel type.
- The batteries shall use 2V battery capacity to be designed for C10 rate.
- Charging instructions shall be provided along with the batteries.
- A suitable battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank.
- The batteries shall be suitable for recharging by means of solar modules via incremental / open circuit regulators.
- Battery interconnecting links shall be provided for interconnecting the battery in series and in parallel as needed and shall be Lead coated heavy duty copper strips.
- Connectors for inter cell connection (series / parallel) shall be maintenance free screws. Front covers shall be provided for each battery bank.
- Battery shall be tested for IEC 61427.

The Battery should be warranted for a period of 5 years.

Covering Letter

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

To,

Director,
Jharkhand Renewable Energy Development Agency
Plot No. 328/B, Road No. 4, Ashok Nagar,
Ranchi.

Sub:- Offer in response to NIT NO. _____

Sir,

We are hereby submitting our offer in full compliance with the terms and condition of the above NIT 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 per month.

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

Authorized Signatory

Name:

Designation:

Company Seal:

Check List of Annexure

S.No.	Particulars	Annexure No.	Yes / No	Flag No.*
1	Details of tender document fee (bank draft no. and date)	I		
2	Details of Earnest money (bank draft/bank guarantee no. and date)	II		
3	The bidder is OEM of PV Module/ Electronics/ Battery	III		
4	The bidder is a PV System Integrator (At least one Solar Photovoltaic Power Plant of minimum 1.0 kWp capacity should have been installed & commissioned) A copy of the order and certificate indicating its successful execution.	IV		
5	1 Certificate for solar module as per IEC Standards 2 Test Certificate for PCU from MNRE authorized Test centers 3 Certificate for Batteries as per IEC Standards.	V		
6	A copy of valid VAT/ TIN registration certificate	VI		
7	A summarized sheet of turnover of last three Financial Years certified by registered CA	VII		
8	The bidder has ISO 9001 certification	IX		
10	MNRE accredited “Off grid” channel Partner	X		
11	Proof of Past Experience of the Bidder in executing contracts on Design, Engineering, Supply, Installation, Erection, Testing and Commissioning of Power Plant executed by the Bidder.	XI		
12	Attested documents in support of technical manpower.	XII		
13	Proof of Educational Qualification	XIII		
14	Proof of being New Unit	XIV		
15	Authorization letter of the Bidder, for the person representing his firm, that he is authorized to discuss and with specific mention of this tender.	XV		

** Please flag the annexure and write flag number in the box.*

**(Signature of Bidder)
with Seal**

(Performa –I)

Information about the Bidding Firm

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

Sl.	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	
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 Proof)	
13.	Details of in-house testing facility (Attach Proof)	
14.	Office/ Dealer and Service network in Jharkhand with TIN No.(Give details)	

15.	Name of Manufacturer with Full Address		
	1.	SPV Module (Enclose IEC Certificate)	
	2.	1.0 kWp PCU (Enclose IEC Certificate/Test Report)	
	3.	2.0 kWp PCU (Enclose IEC Certificate/Test Report)	
	4.	Battery Bank for 48V, 300Ah (Enclose IEC Certificate/Test Report for compliance of the specification)	
	5.	Battery Bank for 48V, 600Ah (Enclose IEC Certificate/Test Report for compliance of the specification)	
16.	Particulars of Earnest Money		
17.	Annual Turnover for last three year (Attach Proof)	2009-10	
		2010-11	
		2011-12	
19.	Place where Materials will be Manufactured		
20.	Place where Materials will be Available for Inspection		
21.	Whether the Bidder has submitted details with regard to supplies made to important organizations.		
22.	Other details and remarks, if any		

Y

Yours faithfully,
(Signature of Authorized Signatory)

Name :
Designation :
Company seal :

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

Declaration by the Bidder

(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 SNAs and Government undertaking/ Department.
11. This offer shall remain valid for acceptance 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 has attached herewith the earnest money as required in the tender document.
15. 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.

Authorized Signatory

Name:

Designation:

Company Seal:

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

TECHNICAL DETAIL FORM

S.No.	Particulars	Details
1	Mounting arrangement for Solar module	:
2	Solar module frame material	:
3	Module type	:
4	No. of solar cells per module	:
5	Make of Solar module (Attach IEC Certificate)	:
6	Country	:
7	Weather resistant HDPE junction Box (IP55)	:
8	Max. Temperature rise of solar cells under severe working condition over max. ambient temperature	:
9	Nominal voltage	:
10	Operating voltage of solar module (nom)	:
11	Peak power voltage (Vmp)	:
12	Peak Power current (Imp)	:
13	Open circuit voltage (Voc)	:
14	Short circuit current (Isc)	:
15	Make of PCU for 1.0 kW and Origin	:
16	Make of PCU for 2.0 kW and Origin	:
17	Make of Battery and Origin	:
18	Type of Battery	:
19	No. of Battery for 1.0 kW system	:
20	Each Battery Voltage for 1.0 kW system	:
21	Each Battery Ah for 1.0kW system	:
22	Battery Bank rating (voltage & Ah) for 1.0 kW system	:
23	No. of Battery for 2.0 kW system	:
24	Each Battery Voltage for 2.0 kW system	:
25	Each Battery Ah for 2.0 kW system	:
26	Battery Bank rating (voltage & Ah) for 2.0kW system	:

27. Undertaking

- a) We agree to manufacture and supply quality Solar Power Plant as per NIT specifications.
- b) We agree to give performance guarantee as specified and to abide by the scope of the guarantee as prescribed under the tender document.
- c) We agree to operate as per the terms & conditions of the tender.

We undertake to supply quality products for promoting energy efficiency in the era of lighting systems.

Signature of the Bidder _____

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

NIT No.: _____ Date: _____

Price Bid

S.No.	Description	System Unit Price	
		In Figure	In Words
1.	Cost of 1.0 kWp System including transportation, Packaging, FOR destination, installation, Commissioning including cabling, wiring with sockets & inclusive of all taxes etc. with 5 Years Comprehensive Maintenance Contract (CMC)		
2	Cost of 2.0 kWp System including transportation, Packaging, FOR destination, installation, Commissioning including cabling, wiring with sockets & inclusive of all taxes etc. with 5 Years Comprehensive Maintenance Contract (CMC)		
Total			

* The bidder should also give price break-up of material cost , installation cost & year wise CMC cost in separate sheet. However, the total cost will only be considered for the financial bid.

Authorized Signatory

Name:

Designation:

Company Seal:

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

List for Order of Submission of Bid

Sl.	Details	Reference Page No.
1.	Demand Draft for cost of bid document if downloaded from web site/Photocopy of money receipt if bid document is purchased from JREDA Office	
2.	EMD as applicable	
3.	Bidders seeking concession/exemption from submission of earnest money, will have to submit an attested photocopy of MSME issued from the Govt of Jharkhand and from NSIC (if applicable)	
4.	Performa – V (Check List)	
5.	Performa – 1 (Information about the Bidding Firm)	
6.	Covering Letter	
7.	Checklist of Annexure	
8.	Performa – II (Declaration by Bidder)	
9.	Performa – III (Technical Data Form)	
10.	Proof of original manufacturer	
11.	List of testing facilities available along with photograph	
12.	Proof of MNRE Accredited Off-Grid Channel Partner	
13.	Proof of ISO 9001 Certificate	
14.	Copy of Solar Module IEC Certificate	
15.	Copy of PCU IEC Certificate/ BIS/MNRE requirements.	
16.	Copy of Battery IEC Certificate for compliance of the specifications.	
17.	Undertaking from bidder for compliance of the specifications	
18.	Self attested photocopies of purchase orders/contracts received from the State Nodal Agencies/ Govt. Organizations/ PSUs.	
19.	Proof of average annual turnover for past 3 years for <i>SPV systems</i>	
20.	Copy of Sales Tax/VAT Registration Certificate	
21.	Copy of MOU signed for Pre-bid tie-up for installation and commissioning	
22.	Financial capability/Solvency Certificate from bank/Financial Institution (indicating BG Limit, Cash Credit Limit, Overdraft limit & Cheque Purchase Limits)	
23.	Copy of PAN and Firm Registration Certificate	
24.	Unit functional certificate/ affidavit	
25.	Complete set of original (purchased/downloaded) tender document and corrigendum and duly signed and seal	
26.	Product leaflet/Catalogue (if any)	

Please ensure:

- i) That all information is provided strictly in the order mentioned in the check list mentioned above.
- ii) Bidders are advised to strictly confirm compliance to bid conditions and not to stipulate any deviation/conditions in their offer. Subsequent to bid submission, JREDA may or may not seek confirmations/clarifications and any offer(s) not in line with Bid conditions shall be liable for rejection.
- iii) Any clarification/confirmation bidder may require shall be obtained from JREDA before submission of the bid. Bidder shall submit complete bidding document including subsequent amendment, modification and revision, duly signed and stamped as a token of having read, understood and accepted all the terms and condition mentioned therein.

Signature of the Bidder _____

**Format for Certificate of Delivery of all the Equipments of Solar Power Plant
received by the Consignee as Proof of Compliance by the Supplier**

NIB No. :

Date :

i e k . k i e

Consignee/प्राप्त कर्ता का नाम : पदनाम :

..

विभाग का नाम :

विभाग का पता :

प्रमाणित किया जाता है कि सोलर फोटो वोलटेइक कार्यक्रम के अंतर्गत सोलर पावर प्लांट हेतु निम्नलिखित उपस्कर प्राप्त किये गये:-

1. सोलर मॉड्यूलस की संख्या एवं क्षमता-
2. मॉड्यूल हेतु स्ट्रक्चर की संख्या:.....
3. बैट्री की संख्या एवं प्रकार :.....
4. इन्वर्टर (पी0सी0यू0) की संख्या एवं प्रकार:.....
5. जंक्शन बॉक्स की संख्या:.....
6. तार आदि.....

इन सोलर उपस्करों की आपूर्ति मेसर्स द्वारा की गई है।

Consignee/प्राप्त कर्ता का हस्ताक्षर विभागीय मुहर के साथ :

दिनांक :

Installation Certificate

NIB No. :

Date :

ie.k ie

प्रमाणित किया जाता है कि सोलर फोटो वोलटेइक कार्यक्रम के अंतर्गत 1.0 kWp/ 2.0 kWp क्षमता का सोलर पावर प्लांट का अधिष्ठापन मेसर्स..... द्वारा पंचायत..... प्रखण्ड....., जिला..... में किया गया है। यह प्लांट पिछले सात दिनों से सुचारु रूप से कार्यरत है।

पंचायत सेवक/मुखिया/प्रखण्ड विकास पदाधिकारी
का हस्ताक्षर एवं मोहर