

**Notice Inviting Bid**  
**For**  
**Rate Contract for Supply, Installation and Commissioning**  
**of Solar Water Heating System**  
**(SWHS) in the State of Jharkhand**  
**Sponsored By**  
**Ministry of New & Renewable Energy, New Delhi**  
**&**  
**JREDA, Government of Jharkhand**



**Jharkhand Renewable Energy Development Agency (JREDA)**  
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**Notice Inviting Bid**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

**Preamble**

As a part of Solar Thermal Programme, JREDA invites bid for “**Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System (SWHS) for 1.5 lakh LPD capacity in the State Of Jharkhand**” for short listing of experienced & eligible bidders as a channel partner of JREDA to whom work shall be allocated for successful execution of the project in a defined time frame. The successful bidder has to execute Supply, Installation & Commissioning of complete Solar Water Heating System (Flat Plate Collector only) with five years warranty of various capacities with required specifications as per MNRE, Govt. of India guidelines along with other additional works required at site etc. JREDA will empanel bidders for Supply, Installation & Commissioning of complete Solar Water Heating System in the State of Jharkhand. The tentative capacity of the installation under this tender is **150000 LPD** at different places in the state of Jharkhand. The successful bidders have to identify the prospective customers/beneficiary i.e. marketing has to be done by successful bidder itself and JREDA will also provide the list of beneficiary, if available. JREDA will also provide necessary support in identification of beneficiary through paper advertisement, seminars etc. The successful bidders have to execute the supply, installation and commissioning of the SWHS after getting due approval from JREDA. **Bidder will be entitled only for payment of subsidy as per MNRE guideline & additional subsidy of Rs. 20/- per Litre (or more which may be decided subsequently) from State Plan fund through JREDA. No bidders shall submit bid less than 15000 LPD of Solar Water Heating System (FPC).**

**Part –I Technical Bid:**

The bidder should fulfill the following **minimum technical and eligibility conditions**. The bidder should submit the check list for this purpose as per the Performa given at **Annexure-2**.

1. The bidder should be:

A registered Manufacturing Company/Firm/Corporation in India of Solar Flat Plate Collector /Solar Water Heating System having valid test report Conforming to BIS 12933 Specifications issued on and after April 2012.

**OR**

A MSME Unit who is manufacturer of components of Solar Water Heating Systems except solar collector and is using BIS approved solar collectors (Conforming to BIS 12933 Specifications issued on and after April 2012) of other manufacturer. For this purpose the bidder shall attach dealership certificate for BIS approved manufacturers of Flat Plate Collectors.

**OR**

A Company/Firm/NGO/Corporation in India who has dealership certificate of BIS approved manufacturers of Flat Plate Collectors (Conforming to BIS 12933 Specifications issued on and after April 2012).

2. The bidder should be a functional organization. To substantiate this claim, the bidder should submit the copy of balance sheet for last 3 years or from the date of establishment to 31.03.2013, whichever is

applicable indicating clearly the sale and turnover. These balance sheets should be duly certified by the Statutory Auditor with his stamp.

**3. Experience Requirement:**

**For General Bidder:** Bidder should have cumulative experience of installation of at least **3750 LPD Solar Water Heating System** through any SNA/MNRE / Govt. Organization / PSU in the last seven years ending up to date of advertisement of this tender for minimum lot size of **15000 LPD**. The bidder submitting the bid for higher capacity will require to have cumulative work experience equal to **25%** of the bid capacity (i.e. same proportion of 15000 LPD verses 3750 LPD.).

**For MSME of Jharkhand:** Bidder should have cumulative experience of installation of at least **1500 LPD Solar Water Heating System** through any SNA/MNRE / Govt. Organization / PSU in the last seven years ending up to date of advertisement of this tender for minimum lot size of **15000 LPD**. The Jharkhand MSME bidder submitting the bid for higher capacity will require to have cumulative work experience equal to **10%** of the bid capacity (i.e. same proportion of 15000 LPD verses 1500 LPD.).

The copy of order and corresponding certificate indicating its successful installation should be enclosed with the check list as at **Annexure-2**; otherwise claim for experience will not be accepted.

**4. Turnover Requirement:**

**For General Bidder:** Bidder should have the minimum average Annual Turnover of **Rs. 7.50 Lakh** derived from the last three financial years ending on 31.03.2013 on the basis of audited annual accounts for minimum lot size of **15000 LPD**.

**For MSME of Jharkhand:** Bidder should have the minimum average Annual Turnover of **Rs. 3.00 Lakh** derived from the last three financial years ending on 31.03.2013 on the basis of audited annual accounts for minimum lot size of **15000 LPD**.

The bidder submitting the bid for higher capacity will require to have average Annual Turnover in same higher proportion. The certificate should be as per the Performa given at **Annexure-11**.

**5. Net worth Requirement:**

**For General Bidder:** Bidder should have the minimum Net Worth of **Rs. 3.00 Lakh** as on 31.03.2013 on the basis of audited annual accounts for minimum lot size of **15000 LPD**.

**For MSME of Jharkhand:** Bidder should have the minimum Net Worth of **Rs. 1.50 Lakh** as on 31.03.2013 on the basis of audited annual accounts for minimum lot size of **15000 LPD**.

The bidder submitting the bid for higher capacity will require to have Net Worth in same higher proportion. Net worth certificate should be as per the Performa given at **Annexure-12**.

- 6.** The bidder should either purchase the bid document from JREDA office by submitting a demand draft of Rs. 5,000/- (Rupees Five thousand only) in favour of “Director, JREDA” on any Indian Nationalized Bank/Scheduled Bank, payable at “Ranchi”. Bidders may also download the bid document from JREDA website ([www.jreda.com](http://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). The tender document cost will be non-refundable. MSME bidder has not to deposit any tender document charge.
- 7.** Bidders should submit in Part – I (Technical Bid) the earnest money in the form of Bank Guarantee /DD of requisite value as mentioned in “Particulars of Tender”. The Bank Guarantee/ DD shall be

made in favour of “Director, JREDA” payable at Ranchi from any Indian Nationalized bank/Scheduled bank. The Bank Guarantee shall remain valid for 12 months. Bank Guarantee in original only is to be submitted with the document. In no case Fax or scanned copy of Bank Guarantee along with bid shall be acceptable and the bid in such case will be rejected outright. Jharkhand MSME bidder has not to deposit any EMD.

- 8. Empanelment procedure after opening of Financial Bid:** The financial bid should be submitted in a separate envelope as per the Performa given at **Annexure-4**. 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 financial & technical competence i.e. the experience, turnover & net worth. The financial competence of the bidder will be evaluated on the basis of Rs. 7.50 Lakh per 15000 LPD for general bidder (Rs. 3.00 Lakh per 15000 LPD for MSME of Jharkhand) from the average annual turnover of last three years and Rs.3.00 Lakh per 15000 LPD for general bidder (Rs. 1.50 Lakh per 15000 LPD for MSME of Jharkhand) from the Net Worth as on 31.03.2013 whichever is minimum. If required, the remaining work will then be 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, 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.

**Particulars of Bid**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

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

1.	Name of work	<b>Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System for 1.5 lakh LPD capacity in the State Of Jharkhand.</b>
2	Tentative Quantity	150000 LPD
	Minimum lot size	<ul style="list-style-type: none"><li>• 15000 LPD Solar Water Heating System.</li><li>• No bidder shall submit bid less than 15000 LPD of Solar Water Heating System.</li></ul>
3	Cost of Bid document (Non-refundable)	❖ Rs.5, 000/- (Rupees Five Thousands only) for General Bidder. ❖ Rs. Nil for MSME of Jharkhand.
4	Earnest Money Deposit	❖ For General Bidder: <b>Rs. 60000/-</b> for the lot size of 15000 LPD. The bidders for higher capacities were required to submit EMD in the same proportion. ❖ For MSME of Jharkhand: <b>Nil</b>
5	Time of completion	Three months from the date of issue of sanction.
6	Contract period	Twelve months from the date of issue of rate contract.
7	Validity of offer for acceptance	Six months from the last date of submission of Bid.
8	Date of Issue of bid documents	From <b>01.11.2013</b> .
9	Last date & time of submission of bids document	<b>26.11.2013</b> up to <b>2.30 PM</b> .
10	Date & time of opening Technical bid Part-I	<b>26.11.2013</b> at <b>4.30 PM</b> .
11	Date & time of opening Financial bid Part-II	Shall be intimated in due course on website & through email/letter.
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: <a href="http://www.jreda.com">www.jreda.com</a> E-mail: <a href="mailto:info@jreda.com">info@jreda.com</a>

## Instruction to Bidder

NIB No: 23/JREDA/ST/SWHS/2013-14

### **Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

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. Salient features of the bid document are given below:

1. **Bid Document:** This bid document comprises of total **30 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:** Bid document can be purchased from JREDA office by submitting a Demand Draft of Rs. 5,000/- 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 **Part – I (Technical Bid)**. Bid applications without the cost of bid document will be rejected. For Jharkhand MSME bidder no bid document fee is required.
3. **Earnest Money:** Bidders shall submit in **Part – I (Technical Bid)** the earnest money in the form of Bank Guarantee /DD 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. The bank guarantee shall remain valid for 12 months. For Jharkhand MSME bidder no EMD is required. But bidders seeking concession/exemption from submission of cost of bid document and/or earnest money, shall have to submit an attested photocopy of relevant certificate for MSME of Jharkhand as applicable, in Part – I of the bid application. **Non submission of relevant certificate will lead to rejection of bid.** 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). 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. **Submission of Bids:**
  - a. 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. The bid should be submitted along with covering letter as given at **Annexure-1**.

- b. The bid shall be prepared and submitted preferably by typing or printing in English 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, may not be considered for the purpose of evaluation. The bidder shall also enclose the information about bidding firm as per **Annexure-5**.
- c. Original copy of bid document, amendments/revisions to bid document and preferably one soft copy, including minutes of meeting(s), issued by JREDA, if any, shall be signed and submitted along with the bid.
- d. All the Proforma must be on the bidder's official letterhead (if specified). Any change in wording of the Proforma will not be allowed. The bidder shall submit a declaration as given at **Annexure-6**.
- e. 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.
- f. 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 should be signed by the company's authorized signatory with seal of the company.
- g. 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 qualify in the **Part – I (Technical Bid)**. The **Part-I (Technical Bid)** should be sealed in an envelope super scribed with NIT NO., "**Part-I Technical Bid**", Name and address of the bidding firm /contact person of the bidding firm, and should be addressed to Director, JREDA.
- h. **Part –I (Technical Bid)** should not contain price of any item. Such cases, even if found anywhere, shall not be given any cognizance.
- i. 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/contact person of the bidding firm, and should be addressed to Director, JREDA. This envelope should contain the following :
- j. It should contain only Proforma as prescribed at **Annexure-4** duly filled, signed and stamped by authorized signatory of the bidder.
- k. 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. In case of discrepancies in figures & words- the lower value may be taken in to account for evaluation.
- l. 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 & communicated to technically qualified bidders after opening of Technical bid. **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 supply, installation & commissioning of SWHS (iii) Name and address of the bidding firm/ 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.



5. **Authority of Person Signing the Documents:** 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 sign 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.
6. **No Claim or Compensation for Submission of Tender:** 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.
7. **Validity of Offer:** Unless otherwise specified, the bidder shall keep his offer valid initially for a period of Six months from the last date of submission of the bid.
8. **Other Terms & Conditions:**
  - a. Insertion, post-script, addition and alteration shall not be recognized unless confirmed by bidder's initial.
  - b. Incomplete tender or tenders not submitted as per requirement as indicated in the NIT may likely to be rejected.
  - c. Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation.
  - d. 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.
  - e. 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 may be summarily rejected.
  - f. 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.
  - g. 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.
  - h. No postal transaction shall be entertained for obtaining bid documents.
  - i. Issuance of bid documents shall not construe that the bidders would be automatically considered qualified.
9. **For any clarification with respect to the specification and other allied technical details of the article included in the tender enquiry document SH. Sudhakar Pandey, Project Director JREDA may be contacted during office hours through written request latest by 16.11. 2013. Request made after 16.11.2013 will not be considered.**

## General Terms & Conditions

NIB No: 23/JREDA/ST/SWHS/2013-14

### **Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

#### **1. Introduction**

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

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

#### **2. Scope of work**

- a. The Scope of work includes Supply, Installation & Commissioning of complete Solar Water Heating System (Flat Plate Collector only) with five years warranty of various capacities (i.e. 100 LPD, 200 LPD, 300 LPD, 400 LPD, 500 LPD, 600 LPD, 800 LPD, 1000 LPD, 1500 LPD, 2000 LPD, 3000 LPD, 4000 LPD, 5000 LPD) with required specifications as per MNRE, Govt. of India guidelines along with other additional works required at site etc. The tentative capacity of the installation under this tender is **150000 LPD** at different places in the state of Jharkhand.
- b. Sensitization and awareness generation about different off-grid and decentralized solar thermal systems.
- c. Identification of prospective customers/beneficiary.
- d. Assessment of the needs of the customers.
- e. Supply, installation and commissioning of the SWHS after getting due approval from JREDA.
- f. Entering in to such Annual/ Cumulative maintenance services with the customers as may be approved by JREDA.
- g. In case of necessity, arranging bank finance for the customers at interest rates as spelt out under the JNSM.

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

4. **Price:** The bidder shall quote his price as per schedule of items of work. The contract price rates shall be firm and binding and shall not be subject to any variation. **The price shall be inclusive of all taxes, duties and levies including Jharkhand Vat etc. as on the opening date of tender.** The price shall also include designing, manufacturing, inspection, supply, transport, insurance, handling etc. All applicable

charges for taking necessary clearance such as commercial tax, road permit etc. wherever required are also deemed to be included in the contract price.

5. **Inspection of the factory and Tests:** JREDA reserves the right to inspect manufacturer's works/factory to ascertain the capability/availability of necessary equipment and infrastructure required for manufacture of the items offered. JREDA shall have the access and right to inspect the work or any part thereof at any stage and to test the goods to confirm their conformity to the technical specifications.
6. **Payment Terms and Conditions:** Subject to any deduction which JREDA may be authorized to make under this contract, the contractor shall be entitled to payment as follows:
  - a. Bidder has to collect payment from beneficiary of his part after successful supply, installation & commissioning of SWHS.
  - b. Payment of subsidy as fixed by JREDA will be made after getting certificate of installation and its satisfactory performance as per **Annexure-9** from beneficiary and its physical verification by JREDA representative.
7. **Dispatch Instructions:** All items/equipments shall be subject to pre-dispatch inspection by JREDA or its authorized representatives before their dispatch if required. The manufacturer will submit test report with regard to conformity to technical specifications for the items.
8. **Liquidated Damages for Delay in Completion:** If the supplier fails in the due performance of the contract to deliver any part of the equipment or complete the work within the time fixed under the contract or any extension thereof granted to him by JREDA and/or to fulfill his obligations in time under the contract, he shall be liable to pay to JREDA @0.5% per week maximum up to 5% of work value delayed beyond contract period.
9. **Risk & Cost:** If the contractor fails to complete the awarded work up to the scheduled date of completion then JREDA will be at liberty to cancel the said work order and will get the full or part of left over work to be completed by way of engaging alternate contractor and completion of the said work shall be got completed at risk & cost of the failed contractor and failed contractor shall be liable to pay all the dues to JREDA.
10. **Insurance:** The supplier shall arrange for transit insurance of the materials & equipments for setting up of SWHS.
11. **Assignment/ Sub-letting:** The bidder shall not assign or sublet its obligations to any third party to perform under the order/contract.
12. **Completeness of Tender:** All fittings, assemblies, accessories, hardware items etc. & safety and protection devices as required shall be deemed to have been included in the tender, whether such items are specifically mentioned in the BoM or not.
13. **Compliance with Regulations:** The supplier/contractor shall comply with all applicable laws or ordinances, codes approved standards, rules and regulations and shall procure all necessary municipal and/or other statutory bodies and government permits & licenses etc. at his own cost. The contractor shall leave JREDA harmless as a result of any infractions thereof.
14. **Agreement:** The successful qualified bidders shall have to enter into an agreement in the office of the Director, JREDA, in prescribed format within 15 days on issue of order.
15. **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 contractor. JREDA shall provide the supplier a certificate for such deductions of tax.

- 16. 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.

- 17. Jurisdiction of the Court:** All disputes would be settled within Ranchi jurisdiction of court of law only.

## TECHNICAL SPECIFICATION

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

Detailed Technical Specifications of Various Components of Flat Plate Collector Solar Water Heating Systems

<b>FLAT PLATE COLLECTOR</b>	BIS 12933 specifications issued on and after April, 2012	
<b>COLLECTOR SUPPORT FRAME</b>	Of non corrosive material or have corrosion resistant protective coating and shall be made with angle iron of 35 mm x 35mm x 4mm; will have vertical support at top and bottom edge of the inclined plane of the collector at a distance of 1.5 M or less. The vertical support shall be firmly grouted with the roof.	
<b>STORAGE TANK (HOT WATER)</b>	SS 304 or 316 grade	
a)Material		
b) Thickness	<b>Minimum thickness</b>	<b>Tank capacity</b>
	20 gauge	(0.91mm)for 100 LPD
	20 gauge	(0.91mm) for 200 LPD
	20 gauge	(0.91mm)for 500 LPD
	18 gauge	(1.2mm)for 1000LPD
	18 gauge	(1.2mm)for 1500 LPD
	18 gauge	(1.2mm)for 2000 LPD
	16 gauge	(1.6mm)for 3000 LPD
	14 gauge	(2.0mm) for 4000 LPD
	14 gauge	(2.0mm)for 5000 LPD
c) Thermal Insulation of Storage tank	Minimum 50 mm thick CFC free PUF having density of 28-32kg/ cu. m for domestic systems and 100mm thick Rockwool of 48 kg per cu. m for other systems.	
d) Inner tank welding	TIG / Seam/ pressurized weld (Open arc weld not permitted )	
<b>PIPING</b>	GI/Composite PVC which can withstand temp. of 250 deg. C	
Material	Minimum 50 mm thick rock wool or 25 mm thick PUF on GI pipes. In case of composite pipes, protective material should be provided, to avoid cracks and damages due to weather.	
Insulation		
<b>INSTRUMENTATION</b>	Temperature gauge: 1 No. dial type (for Hot Water Storage Tank/Outlet)	
<b>COLD WATER TANK</b>	HDPE/LDPE material with Gun metal float valve (ISI marked) equal to the capacity of Hot water storage tank.	
<b>MAKE UP TANK</b>	The capacity of makeup tank should be 5 liters up to 500 LPD and 10 liters for 1000 LPD and above made of SS304 minimum 0.8 mm thick	

<p><b>STANDS &amp; PEDESTALS FOR THE TANKS</b> (hot water tank/ cold water tank)</p>	<p>The tanks will be mounted on stands made out of angle iron frame of 35x35x4mm up to 500 liters, 50x50x6 mm up to 2000LPD and 65x65x6mm for capacity above 2000 liters with each leg duly grouted with PCC 1:2:4 of 1'x1'x1' size. The cold water tanks will be placed over angle iron frame having 4 cross members in 4 legs with 5mm thick MS sheet for full bottom support fixed of 4 horizontal members based on the size of the cold water tanks.</p>
<p><b>SYSTEM LAYOUT &amp; DESIGN</b></p>	<p>Maximum number of collectors in series should not be more than ten. Maximum number of collectors in parallel in one row without the use of any piping connections should not be more than six. Air venting at appropriate places without hindrance of a spring leaded valve to prevent air locking in the system should be provided. For this purpose, the system shall have, at a suitable point, atmospheric pressure conditions preferably in the high temperature zone.</p>
<p><b>HEAT EXCHANGER (SHELL/ COIL Type)</b> Material and size</p>	<p>Cu/SS tube of ¾" dia. for thermo siphon systems only. It shall be so designed to ensure that pressure drop is less than 0.3 kg/cm. The surface area of the heat exchanger should not be less than 0.24 sq. m per sq. m of the absorber area of the system (for 100 LPD system, the tube length of 7 meter is required).</p>
<p><b>ELECTRICAL BACK UP</b> (only upto 1000 LPD)</p>	<p>For 100 -200 LPD - 2 KW For 300-500 LPD- 2x2 KW Electrical wiring of 2.5 mm sq. 2 core unarmoured cable, thermostat of ISI mark of 16 amps.</p> <p>For 600 LPD- 6 KW For 800 -1000 LPD-9 KW</p> <p><b>Electrical back up control panel for 6 KW &amp; above should be provided.</b></p>

**General Requirement:**

1. System installed in high windy area will be well grouted/ clamped with collectors installed in a way that it is able to sustain the highest wind pressure of that area.
2. All the collectors will be south facing inclined at suitable angle to give best performance in winter.
3. There will not be any shadow falling on the collectors from nearby structures or of other collectors in front or back row
4. Hot water pipe lines of any kind will be fully insulated from the point of drawl of water from tank to delivery points.
5. System will be installed nearest to the point of hot water usage to avoid longer pipeline & higher heat losses.
6. The workmanship & aesthetics of the system will be good and it should be visible to anybody
7. Air vent pipe, make up water and cold water tanks will be installed as required for smooth functioning of the system.
8. There won't be any leakage observed in the system from tanks/ collectors / pipelines.

Format for Covering Letter

NIB No: 23/JREDA/ST/SWHS/2013-14

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

To,

The Director,  
Jharkhand Renewable Energy Development Agency  
Plot No. 328/B, Road No. 4, Ashok Nagar,  
Ranchi- 834002.

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

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:

Check List of Technical bidNIB No: 23/JREDA/ST/SWHS/2013-14**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

S. N.	Particulars	Yes / No	Flag No.*	Page No.
1	Confirm whether you have prepared all the documents in a spiral binding/hardbound booklet.			
2	Confirm whether all pages have been serially numbered.			
3	Confirm that the authorized representative has signed all the pages of bid document.			
4	Confirm whether you have signed (with company seal) all the pages of bid document & enclosed with the bid.			
5	Covering Letter as per <b>Annexure-1</b> .		I	
6	Information about the Bidder as per <b>Annexure-5</b> .		II	
7	The bidder is manufacturer or authorized dealer of manufacturer of SWHS confirming to relevant National /International Standards (Attach relevant certificates of Industry Department or MNRE or Dealership Certificate).		III	
8	To indicate the functionality of the firm attach the balance sheet of last three years ending 31.03.2013 of the firm duly certified by statutory Auditor.		IV/V/VI	
9	Registration certificate of MSME of Jharkhand State, if applicable (Enclose certificate issued by Industry Department, Govt. of Jharkhand).		VII	
10	The proof of supply of SWHS in any SNA/Govt. organization/PSU in the last seven years as per <b>Annexure-3</b> . (Attach copy of the order and corresponding certificate indicating its successful execution otherwise claim will not be accepted.)		VIII/IX Series	
11	BIS/MNRE certificates for SWHS (Attach relevant certificate).		X	
12	A copy of valid VAT/ TIN registration certificate		XI	
13	Average Annual Turnover for last three years ending 31.03.2013. (Attach average annual turnover certificate as per <b>Annexure-11</b> )		XII	
14	Net worth as on 31.03.2012/2013. (Attach proof & Net worth certificate as per <b>Annexure-12</b> )		XIII	
15	Details of tender document fee (Bank Draft No. and Date)		XIV	
16	Details of Earnest money (Bank Guarantee No. and Date/ DD No. & Date ) as per <b>Annexure-8</b> .		XV	
17	Technical Details as per <b>Annexure-7</b> .		XVI	
18	Declaration by Bidder as per <b>Annexure-6</b> .		XVII	
19	Authority Letter for Signing Bid Document/ Attending Bid Opening Meeting as per <b>Annexure-10</b> .		XVIII	

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



**Please ensure:**

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

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

**Details of Orders Received and Executed in Last 7 Years**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

Details of Orders Received & Executed by the Manufacturer/Supplier for Supply /installation of SWHS to SNA/ Govt. Organization during Last Seven Years.

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

Yours faithfully,

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

Note:

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

**Part-II PRICE BID**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

Offered price of supply, installation and commissioning of Solar Water Heating Systems of various capacities FOR anywhere in Jharkhand along with necessary hot water tanks with heat exchanger, make up tank, cold water pipe to connect cold water tank, hot water pipe to connect collectors with hot water tank with necessary insulation, structural support for collectors, hot and cold water tank and grouting as per NIB inclusive of all taxes & duties and **five years guarantee period.**

S. N.	System Capacity	Rate per LPD (Rs.)
1.	Systems with Electrical backup (100LPD to 1000LPD).	
2.	Systems without Electrical backup (Above 1000LPD).	

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

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

**Information about the Bidding Firm**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

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

S. N.	Particulars	
1.	Name of the Bidder	
2.	Address of Bidder with Telephone, Fax, email	
3.	Address of the Registered Office	
4.	Address of the works	
5.	GPS Co-ordinate of Registered Office	
6.	GPS Co-ordinate of Factory Campus	
7.	Name & Designation of Authorized Signatory for Correspondence (Attach Power of Attorney as per <b>Annexure-10</b> )	
8.	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Ltd. Co./Public Sector)	
9.	Permanent Account Number (PAN) (Attach proof)	
10.	Firm's Registration Number (Attach proof)	
11.	TIN/Sales Tax/Value Added Tax Registration Number (Attach proof)	
12.	Specify the Item Originally Manufactured (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	

(Signature of Authorized Signatory)

Name :

Designation :

Company seal :

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

Declaration by the Bidder

NIB No: 23/JREDA/ST/SWHS/2013-14

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

(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:

**Technical Detail Form****NIB No: 23/JREDA/ST/SWHS/2013-14****Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

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

S. N.	Particulars	Details
1	Type of collector	:
2	Number of riser tubes per collector	:
3	Diameter of riser tubes	:
4	Thickness of riser tube	:
5	Length of the riser tube	:
6	Diameter of header tube	:
7	Thickness of header tube	:
8	Length of the header tube	:
9	Length of fin	:
10	Width of the fin	:
11	Thickness of the fin	:
12	Absorber Coating	:
13	Coating Thickness	:
14	Emissivity of absorber coating	:
15	Absorptivity of absorber coating	:
16	Collector efficiency as per test report	
17	Size of collector	
18	Absorber area	
19	Material for section	
20	Thickness of section	
21	Weight of collector	
22	Insulation material	
23	Bottom sheet	
24	Thickness of bottom sheet	
25	Type of glass	
26	Transmitivity of glass	
27	Thickness of glass	
28	Protective coating on the box	
29	Collector end connection	
30	Test pressure	:
31	Collector sealant	
32	Collector fasteners	:
33	Collector Hot Water Output per day	:
34	Hot Water Tank Material	
34	Hot Water Tank Thickness	
35	Hot Water Tank Insulation	
36	Hot Water Tank Insulation Thickness	
37	Hot Water Tank Insulation Thickness Density	
38	Hot Water Tank Welding	

Undertaking

- a) We agree to manufacture/supply quality SWHS as per NIT specifications.
  - b) We agree to give performance guarantee as per NIT terms.
  - c) We agree to operate as per the terms & conditions of the tender.
- We undertake to supply quality products for promoting energy efficiency.

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

Format for Submitting Bank Guarantee for Earnest Money

NIB No: 23/JREDA/ST/SWHS/2013-14

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

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

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

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

WHEREAS the Supplier as per "Notice Inviting Bid, point no. 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.: **23/JREDA/ST/SWHS/2013-14**".



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. : **23/JREDA/ST/SWHS/2013-14**” 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 .....

.....

**Certificate of Installation of SWHS as Proof of Compliance by the Supplier**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

To,

The Director,  
JREDA,  
328/ B, Ashok Nagar, Ranchi

**Sub: Request for release of Subsidy.**

Ref: Your Approval No ----dated -----

Sir,

Certified that we have installed ---- LPD Solar Water Heating System of ----- make at our premises through “-----”.

The System is installed properly and working satisfactory.

We request you to kindly release the subsidy amount Rs. ----- directly in the Name of “M/s -----”.

Further it is certified that I have never received/claimed any subsidy/or will never claim any other subsidy against this work other than this request.

Thanking You.

**Supplier/Vendor**  
**(M/s-----)**

**Beneficiary**  
**(Name & Address)**

**Format of Power of Attorney for Signing Bid**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

**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 **Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand**, 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, laid 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: 23/JREDA/ST/SWHS/2013-14**

[On the letterhead of Bidding Company]

To,

The Director,  
Jharkhand Renewable Energy Development Agency,  
328/B, Road No.-4, Ashok Nagar,  
Ranchi- 834002.

Dear Sir,

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

We certify that the Bidding Company had an average Annual Turnover of Rs. ----- based on audited annual accounts of the last three years ending 31.03.2012/2013 for SPV Systems.

*Authorised Signatory*  
*(Power of Attorney holder)*

*Statutory Auditor*  
*(Stamp & Signature)*

Date:

**Format For Financial Requirement - Net Worth Certificate**

**NIB No: 23/JREDA/ST/SWHS/2013-14**

[On the letterhead of Bidding Company]

To,

The Director,  
Jharkhand Renewable Energy Development Agency,  
328/B, Road No.-4, Ashok Nagar,  
Ranchi- 834002.

Dear Sir,

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

This is to certify that Net worth of \_\_\_\_\_ {insert the name of Bidding Company}, as on 31st March 2012/2013 is Rs \_\_\_\_\_. The details are appended below.

<b>Particulars</b>	<b>Amount (In Rs.)</b>
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 <sup>st</sup> March 2012/2013	

*Authorised Signatory*  
(Power of Attorney holder)

*Statutory Auditor*  
(Stamp & Signature)

Format for Quarterly O&M and CMC Report

NIB No: 23/JREDA/ST/SWHS/2013-14

[On the Letterhead of Bidding Company]

To,

The Director,  
Jharkhand Renewable Energy Development Agency,  
328/B, Road No.-4, Ashok Nagar,  
Ranchi- 834002.

Dear Sir,

**Sub: Rate Contract for Supply, Installation and Commissioning of Solar Water Heating System in the State Of Jharkhand.**

Date of Installation.....

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

Place of Supply.....

S. N.	Place of Installed System	System Details		Date of Site Visit	O&M/CMC activities undertaken by Technician	Name and Signature of Concerned field Officer of JREDA	Name and Signature of Controlling Officer of JREDA
1.		SWHS Capacity (LPD)					
		Collector Area (sq. m)					
2.		SWHS Capacity (LPD)					
		Collector Area (sq. m)					
3.		SWHS Capacity (LPD)					
		Collector Area (sq. m)					

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal: