

# **Bid Document**

**For E-Tender**

**FOR**

Design, manufacture, supply, installation and commissioning of 1000 Nos. of Solar Water Heater (100 LPD Flat Plate Collector type) including 5 years Maintenance and Performance Warrantee Contract (MPWC) in Manipur

NIB No. 64/6/SWH/MANIREDA/2022-23/6

**MANIPUR RENEWABLE ENERGY DEVELOPMENT AGENCY (MANIREDA)**

2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T. Line, Near Hotel Imphal, Imphal-795001

E-mail:manireda99@yahoo.com, Website:www.manireda.mn.gov.in

January, 2023

(This tender document is having 30 Pages including this page)

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Office of the  
**MANIPUR RENEWABLE ENERGY DEVELOPMENT AGENCY(MANIREDA)**

*(An Autonomous Govt. Institution under Power Department)*

2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T.Line, Near Imphal Hotel, Imphal – 795001

No. : 64/6/SWH/MANIREDA

Imphal, dated 23/1/2023

**NOTICE INVITING BID**

Online tenders are invited from eligible MNRE accredited channel partners/ reputed manufacturer of flat plate collector having BIS certification for their A or B size flat plate collectors with at least 5 years of working experience in design, manufacture, supply, erection, testing & commissioning of 1000 Nos. of Solar Water Heating systems for installation in Manipur.

<b>Tender NIB No.</b>	<b>Cost of Bid Document</b>	<b>Last date &amp; time for submission of E-Tender</b>	<b>Date &amp; time for opening of the E-Tender</b>
64/6/SWH/MANIREDA/2022-23/6 dtd. 23/1/2023	Rs. 3000/-	10/2/2023 upto 12.00 Noon	10/2/2023 upto 2.00 pm

Tender Document can be downloaded from the websites; [www.manipurenders.gov.in](http://www.manipurenders.gov.in) or [www.manireda.mn.gov.in](http://www.manireda.mn.gov.in). Bidders have to submit the Hard copies of Bid at the office of MANIREDA.

N.B.: MANIREDA reserves the right to cancel the Tender without assigning any reason or without bearing any liability, whatsoever, consequent upon such decision. Vendors need not upload all the required documents in the tender portal but to submit as hard copies to the office of MANIREDA on or before the date of opening of the tender.

Sd/-

(N. Praveen Singh)  
Director, MANIREDA

## 2. Bid at a glance

SI	Description	Details
1.	Notice Inviting Bid (NIB) No.	64/6/SWH/MANIREDA/2022-23/6 dtd. 23/1/2023
2.	Scope of work	Design, manufacture, supply, installation and commissioning of 1000 Nos. of Solar Water Heater (100 LPD Flat Plate Collector) type including 5 years Maintenance and Performance Warrantee Contract (MPWC) in Manipur.
3.	Cost of bid document	Rs 3,000/- in the form of DD from any Nationalized/Scheduled bank favouring Director MANIREDA payable at Imphal. Cost of Bid Document is exempted for MSME/NSIC registered Firms.
4.	Earnest Money Deposit (Refundable)	Rs.7,75,000/- only in the form of DD favoring Director MANIREDA, payable at Imphal. Earnest Money Deposit is exempted for MSME/NSIC registered Firms.
5.	Last date of uploading of bid document in the e-tender portal	Up to 12.00 noon of 10 th February, 2023 e-tendering site - <a href="https://manipurtenders.gov.in">https://manipurtenders.gov.in</a>
6.	Submission of Hard copy of bids	Date : 10th February, 2023 Time : Upto 12.00 noon (submission of documents after 12.00 noon will not be accepted at any circumstances and not eligible)
7.	Opening of Technical Bid	Date : 10 th February, 2023 Time : 2 .00 pm sharp. Venue : Office of the Director, MANIREDA, 2 <sup>nd</sup> Floor, South Block, Secured Office Complex, AT Line, Imphal.
8.	Place of submission of bid documents and address for communication/ Bid Opening Meeting	Manipur Renewable Energy Development Agency (MANIREDA), 2 <sup>nd</sup> Floor, South Block, Secured Office Complex, AT Line, Near Hotel Imphal, Imphal - 795001. Website : <a href="http://www.manireda.mn.gov.in">www.manireda.mn.gov.in</a> , E-mail : manireda99@yahoo.com
9.	Opening of Financial Bid	Financial Bids will be opened only for Technically qualified bidders. Date and Time : Will be informed.
10.	Validity of offer	The offer shall remain valid up to 365 days from the date of submission of offer.
11.	Duration of project	12 (Twelve) months from the date of placement of work order.
12.	Notices/amendments/cancellation to be updated	Prospective bidders are requested to remain updated for any notices/amendments/cancellation, etc. in the bid document conditions/terms, in the above mentioned website. No separate notifications will be issued for such notices /amendments/clarifications etc. in the print media (press) or intimated to the bidders separately.

# VOLUME I

### 3. Detailed Notice Inviting Bid (DNIB)

#### MANIPUR RENEWABLE ENERGY DEVELOPMENT AGENCY (MANIREDA)

(An Autonomous Govt. Institution under Power Department)

2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T. Line, Near Hotel Imphal, Imphal-795001

E-mail:manireda99@yahoo.com, Website: www.manireda.mn.gov.in

NIB No. : 64/6/SWH/MANIREDA/2022-23/6 :

Date: 23/01/2023

Sub : Design, manufacture, supply, installation and commissioning of 1000 Nos. of Solar Water Heater (100 LPD Flat Plate Collector) type including 5 years Maintenance and Performance Warrantee Contract (MPWC) in Manipur.

Dear Sir/Madam,

Manipur Renewable Energy Development Agency (MANIREDA), Imphal is inviting offers from eligible MNRE accredited channel partners/ reputed manufacturer of flat plate collector having BIS certification for their A or B size flat plate collectors with at least 5 years of working experience in design, manufacture, supply, erection, testing & commissioning of Solar Water Heating systems for installation in Manipur with the best binding price offer as per specifications and terms & conditions mentioned in the bid document. Salient features of the bid document are given below:

#### CHAPTER – I : ABOUT THE BID AND ITS SUBMISSION PERIOD :

##### 1.1 INTRODUCTION

The instruction/information contained in the Bid Document is for guidance and compliance of the intending Bidder. Bidder is advised to obtain, in writing, clarifications from the Manipur Renewable Energy Development Agency (MANIREDA), if any, prior to submission of their Bids, failing which it will be deemed that the stipulation made in the Bid Documents have been read, understood and are acceptable to the Tenderer.

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

##### 1.2 BID DOCUMENT

- 1.2.1 NIB No. : 64/6/SWH/MANIREDA/2022-23/6 dated 23/01/2023.
- 1.2.2 Bid document shall comprise of various Proformas and Tables as specified in Volume II. In addition, any other document/instruction/amendments/ revisions issued by the MANIREDA to the Bidder or later till due date of submission of the offers, shall also be deemed to be integral part of the order. Failure to furnish all the information required by the Bid document in every respect will be at Bidder's risk.
- 1.2.3 The Technical Bids and Financial Bids will be opened on the date and time mentioned in the tender website in the **Office of the Director, MANIREDA, 2<sup>nd</sup> Floor, South Block, Secured Office Complex, AT Line, Near Hotel Imphal, Imphal** in presence of bidders or their authorized representatives. The representative should produce authorization letter to attend the bid opening meeting in the Proforma - 2.

### 1.3 COST OF BID DOCUMENT

Bidders can download the Bid Document from Manipur E-Tender website ([www.manipur tenders.gov.in](http://www.manipur tenders.gov.in)) and MANIREDA website ([www.manireda.mn.gov.in](http://www.manireda.mn.gov.in)) and submit the cost of the bid document amounting Rs 3,000/- along with Technical Bid. Cost of Bid Document is exempted for MSME/NSIC registered Firms.

### 1.4 Earnest Money :

- 1.4.1 EMD for an amount of Rs. 7,75,000/- shall be submitted along with the technical bid in the form of Demand Draft from a Nationalised Bank/scheduled bank of requisite value in favour of Director, MANIREDA payable at Imphal. Earnest Money Deposit is exempted for MSME/NSIC registered Firms.
- 1.4.2 Bidders failing to submit earnest money will be rejected.
- 1.4.3 The earnest money shall be returned to all unsuccessful bidders in technical evaluation, within three weeks.
- 1.4.4 No interest will be paid on EMD.
- 1.4.5 The earnest money shall be forfeited if –
- 1.4.6 Any bidder withdraws his bid during the validity period of the bid.
- 1.4.7 The successful bidder fails to furnish his acceptance of the Order within fifteen days of placement of Work Order by MANIREDA.
- 1.4.8 The bidder fails to successfully complete the work within the stipulated time frame. Delay in completion due to extreme and unavoidable situations will have to get approved by Director, MANIREDA

### 1.5 Exemption:

- 1.5.1 **In case of claim for exemption from deposition of cost of Tender and Earnest Money, sufficient proof in support of claim for exemption of EMD as prescribed in Govt. of India Notification and other competent authority is to be attached with the Bid.**

### 1.6 SUBMISSION OF BIDS :

- 1.6.1 **Bidders have to upload the documents in the E-tender website (<https://manipur tenders.gov.in>). Bidders shall also have to submit hard copies of the uploaded documents either personally or by registered post in a sealed envelope addressed to The Director, Manipur Renewable Energy Development Agency (MANIREDA), 2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T. Line, Near Imphal Hotel, Imphal – 795 001 marked in the upper left hand side  
“Tender for Design, manufacture, supply, installation and commissioning of Solar Water Heating Systems (Flat Plate Collectors) including 5 years AMC in Manipur.”**
- 1.6.2 **Tenders/Bids received late, after the due date and time shall be returned unopened to the bidder.**
- 1.6.3 MANIREDA will open the Bids, in the presence of Bidder’s representatives who choose to attend at the scheduled time of opening as mentioned in the NIB. The bidder’s representatives, who are present, shall sign a register as evidence of their presence during opening of tenders. In the event of the specified date of bid opening being declared a holiday, the tenders shall be opened at the appointed time and location on the next working day.
- 1.6.4 The Bidder’s name, prices, discounts and the presence or absence of the requisite bid security and such other details as MANIREDA, at its discretion may consider appropriate, will be announced at the opening of tenders.

- 1.6.5 To assist in the examination, evaluation and comparison of the offers, MANIREDA may at its discretion, may ask the Bidder for clarification of its offer. The request for clarification and the response shall be in writing and no change in price or substance of the offer shall be sought, offered or permitted.
- 1.6.6 The Bid shall be valid up to 12 months from the date of opening of the tenders.
- 1.6.7 The successful Bidder shall be awarded work order followed by Letter of Intent for execution of the work under the terms and conditions stipulated in the Bid document and also any other special terms & conditions that may be mutually settled before awarding the contract.
- 1.6.8 The intending Bidders should have all relevant licenses and permits etc. from competent Government authorities as required for executing the contract.
- 1.6.9 **Director, MANIREDA, reserves the right to cancel any or all tenders without assigning any reasons thereof and not bound to accept the lowest tender.**
- 1.6.10 Consortium will be allowed to participate in the Tender & implement the project and should be registered under Companies Act, 2013. If any Consortium participates in the above Tenders then duly filled up Consortium Agreement (Format enclosed) should be submitted along with the Technical Bid. Failing which, the Tenders may be liable to reject.

## **1.7 SCOPE OF WORK :**

- 1.7.1 Scope of work as mentioned in the 'Bid at a glance'. MANIREDA reserves the right to amend the scope of work, accept or reject any or all the offers/bids, in part or in full or cancel/withdraw the invitation for bids without assigning any reasons whatsoever and in such case, the bidder/intending bidder shall have no claim arising out of such action.
- 1.7.2 The Bidder shall carefully check the specifications and shall satisfy himself regarding the technical requirement and completeness of the equipment/system. MANIREDA shall examine whether the bid is complete in all respects and conform to the stipulated requirement of the technical specifications and tests reports. The bid having material deviation shall be rejected as being non-responsive.
- 1.7.3 The bidders should beforehand thoroughly familiarized with the site to be installed, incidental expenditures/ charges on transportation, installation and maintenance expenses etc. They should also access the local conditions including prevailing law and order problems before submitting their offer. Any claim on change/ increase in the rate/price/cost of the work due to any reason will not be entertained at any circumstances.
- 1.7.4 MANIREDA, if required, may at its discretion obtain clarifications on offers by requesting clarifications from any or all the bidders at any time prior to Financial Bid opening. Such request for clarification and the response shall be in writing.
- 1.7.5 It is not necessary to select the lowest quoted rate. MANIREDA reserves the right to decide the reasonable price/rate for successful implementation of the project.
- 1.7.6 The Financial Bid of only those bidders, whose Technical Bids are found qualified after evaluation, will be opened and evaluated. In case of deviation in the date and time of opening of the Financial Bid from what is given in the Bid Detail, the date & time for opening of the Financial Bid will be uploaded on MANIREDA website. Bidders are requested to visit the website ([www.manireda.mn.gov.in](http://www.manireda.mn.gov.in)) regularly and keep themselves informed.
- 1.7.7 The channel partners should have/willing to open adequate field service setup to provide good after sale services including necessary repair and maintenance in the state of Manipur within a month after empanelment preferably in Imphal. The service centre should be located at customer friendly area with minimum infrastructural requirements, maintenance of adequate spares with competent and trained technicians.



The above stated requirements are compulsory to be fulfilled by the tenderer and MANIREDA may also ask for any additional information as may be deemed necessary in public interest.

**1.8 Price :**

1.8.1 The Bidder shall quote price as per the Price Bid/Bill of Quantity (BOQ) uploaded on the E-Tender portal.

**1.9 VALIDITY OF OFFER**

The Bid and Price quoted shall remain valid for 12 months from the Date of Opening/Extended Date of Opening of Bids.

**2.0 TERMS OF PAYMENT**

Purchase Order / Work Order will be issued for 1000 Nos. of Solar Water Heating Systems of 100 LPD initially and may increase according to availability of fund.

- a) 70% of the amount of the work order value {excluding Maintenance and Performance Warranty Contract (MPWC) charges} shall be paid by the purchaser on receipt of equipment/devices of the Solar Water Heating Systems after confirming to technical specification as specified in this bid document and verification by MANIREDA, on submission of invoice to the purchaser and subject to availability of fund.
- b) 20% of amount of the work value {excluding Maintenance and Performance Warranty Contract (MPWC) charges} shall be paid by the purchaser after 100% installation and commissioning at the sites against duly verified completion report with successful installation and commissioning and testing of the systems with the submission of the following documents:
  - 1. Commercial invoice of the supply made in triplicate.
  - 2. Copy of delivery challan/transportation challan/lorry receipt.
  - 3. Verification of Certificate of Commissioning and testing from the consumer / beneficiary countersigned by officer concerned.
  - 4. Photographs of the systems installed alongwith beneficiary.
  - 5. All payments shall be released by MANIREDA through e-payment through RTGS/account transfer for which the following mandatory information is to be furnished from the consumer;

Name of the Firm to whom payment is to be made	Name of bank	Bank Branch address	Account Number	Type of account	MICR Code	IFSC code	PAN No.
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- c) Balance 10% of the total work order value excluding MPWC shall be retained as Performance Guarantee / Security Deposit for a period of 2 (two) years, from the date of commissioning of all the Solar Water Heating Systems of the particular batch. This amount, however, may be released on submission of Bank Guarantee of equivalent amount issued by a Nationalized Bank having a validity period of 5 (Five) years. If the system fails to confirm to the laid down systems specifications or any deviation/compromise has been observed in the system specifications etc., the performance guarantee deposit of the firm shall be forfeited.
- d) MPWC charges shall be released on 5 equal yearly installments on satisfactory performance of the Solar Water Heaters. The record of performance sheet shall be submitted to MANIREDA on half yearly basis, by 15<sup>th</sup> day of the corresponding month.

## CHAPTER – II

### Checklist for submission of offer for SWHS

- a) Forwarding letter in **Proforma –I**.
- b) Minimum eligibility condition qualification in **Proforma –II**.
- c) **BIS certification for flat plate collector as on 1.4.11 and proof of having applied for renewal of the same. Tenderers not fulfilling this condition, will not be considered and their offers will be rejected outrightly.**
- d) Details of orders received and executed by manufacturer for supply of Solar Water Heating Systems during last three years (must be of value over Rs. 5 Crore or more) certified by registered Chartered Accountant as per **Proforma –III**.  
(A summarized sheet of turnover of **Rs. 5 Crore or more during last three years** certified by registered Chartered Accountant as per **Proforma –III**.)
- e) Photocopy of partnership deed in case of partnership firm.
- f) Power of attorney for authorised signatory in case of companies.
- g) Details of Orders Received and Executed in Past 3 years to different State Nodal Agencies/ Govt. Departments.
- h) Photocopies of certificate of satisfactory performance of system supplied to State Nodal Agencies/ Govt. Departments along with copy of purchase order.
- i) Earnest Money Deposit (EMD).
- j) Lists of Solar Thermal Works at present in hand with detailed address of the site, type of system, capacity of the system and type of absorbers being used.
- k) Names of sub-contractors, if any;
- l) Printed leaflets regarding products of the Company.
- m) GST/Sales tax registration number.
- n) Test Reports of components like collector, drum, pipes etc. from approved/ competent testing centres.
- o) Copies of RCs of other State to which the applicant is a party.
- p) Consortium Agreement (Format enclosed)

## **CHAPTER – III: GENERAL TERMS AND CONDITIONS**

### **3.0 No Claim or Compensation for Submission of Tender:**

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

### **4.0 Validity of Offer:**

4.1 Unless otherwise specified, the bidder shall keep his tender valid initially for a period of 365 days from the due date of submission of the offer.

### **5.0 Award of Purchase/Work Order :**

5.1 The purchase/work order shall be awarded to the bidder whose financial Bid was acceptable and who is selected by the Tender Committee of MANIREDA/Departmental Tender Committee to undertake the work at the approved rate and on approval of the Chairman, MANIREDA.

### **6.0 Contract Price :**

6.1 The total contract price and 5 years MPWC in full and complete set including mechanical components, etc. should be quoted as per BOQ. The price shall be for the total scope as defined in this document.

6.2 The income tax shall be deducted as applicable at the existing rate.

6.3 During the period of the contract, MANIREDA may order addition/deletion in quantities/capacities which the bidder shall comply. The adjustment in Contract Price shall be made at the same unit rate as per Price Schedule.

### **7.0 Statutory Variations in Taxes and Duties:**

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

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

### **8.0 Agreement:**

8.1 The Supplier/Contractor(s) have to enter into an agreement within two weeks, in the office of the Director, MANIREDA in prescribed format before commencement of supply/services.

### **9.0 Inspection of the Factory and Tests:**

9.1 MANIREDA reserves the right to inspect the manufacturer's works/factory to ascertain the

capability/availability of necessary equipment & infrastructure required for the items offered before opening of the Financial Bid of the bidders.

- 9.2 MANIREDA shall have access and right to inspect the work or any part thereof at any stage.
- 9.3 MANIREDA shall have the right to inspect and test the goods to confirm their conformity to the technical specifications after delivery of goods to consignee.
- 9.4 Successful bidder shall inform MANIREDA at least 25 days in advance of schedule dispatch.

#### **10.0 Dispatch Instructions:**

- 10.1 All items/ equipment may be subjected to pre-dispatch inspection by Director, MANIREDA or its authorized representative(s) as per relative standards/provisions approved by MANIREDA before dispatch of items. Cost of inspection by officials (not more than two) would be borne by the successful bidder.

#### **11.0 Transit Insurance:**

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

#### **12.0 After Sales Service and Availability of Spare Parts:**

- 12.1 The Supplier shall depute authorized Service Engineer/ Technician within 3 days from the date of the intimation of fault, and establish sufficient inventory of spares, well trained technicians in the State in consultation with MANIREDA to provide satisfactory and uninterrupted services during the guarantee/ AWC period for which a servicing centre must be established at Imphal. Address, contact number etc. of the Servicing centre must be submitted before commencement of the work.

#### **13.0 Completion Schedule:**

- 13.1 The delivery of goods at FOR destination in full as per the terms and conditions of the contract/order shall be completed within **Three (3) months** from the date of issue of the Purchase / Work Order whichever is earlier.

#### **14.0 Guarantee/Warranty Period:**

- 14.1 The manufacturer must provide guarantee which include servicing & replacement guarantee for parts and components (such as collector, drum etc.) of solar water heating systems for 5 (five) years.
- 14.2 The guarantee card to be supplied with the systems must be in original and contain the details of the system supplied. The manufacturers can also provide additional information about the system and condition of guarantee as necessary.
- 14.3 Supplier/contractor shall without prejudice to any other clauses of the order repair/replace the defective parts and restore the system to satisfactory working/performance within 7(seven) days of intimation of fault without any additional cost to MANIREDA within the period of guarantee/ MPWC.

#### **15.0 Assignment/Sub Letting/Pre Bidding Tie Up:**

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

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

#### **16.0 Liquidated Damages for Delay in Completion:**

- 16.1 The completion period for the assignment must carefully be worked out and all resource & work planning is to be done accordingly with flexibility for adjustments.
- 16.2 If the Supplier fails in the due performance of the contract to deliver and commission any part of the equipment or complete the work within the scheduled date for any reason other than due to Force Majeure conditions or any extension thereof granted to him by MANIREDA, he shall be liable to pay to MANIREDA as pre-agreed liquidated damages but not by way of penalty on account of delayed successful commissioning, a sum equal to 0.1% of total contract value per week of such delay, or part thereof, subject to maximum of 5% of the Total Contract Value.
- 16.3 The liquidated damages for delayed completion shall be recovered from the Supplier's Bill / Bank Guarantee deposited as Performance Guarantee.
- 16.4 Deductions/payment of liquidated damages shall in no way relieve the Supplier from his contractual responsibility to complete the works.

#### **17.0 Cancellation of Order :**

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

#### **18.0 Arbitration :**

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

#### **19.0 Force Majeure :**

- 19.1 Should at any time during the continuance of the contract the performance in whole or in part of any obligations by either party under this contract be held up by reasons of any war, hostility, acts of foreign enemy, civil commotion, sabotage, fires, floods, earthquakes, explosions, epidemics, cyclones, quarantine restrictions, Governmental regulations, law & order and other proclamation etc. (hereinafter referred to as "Events") then, provided notice of the happening of any such eventuality is

given by either party to the other within 15 days from the date of occurrence thereof neither party shall, by reasons of such eventuality, be entitled to terminate this contract, nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and the work under this contract shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exist.

- 19.2 Should one or both the parties be prevented from fulfilling their contractual obligations by a state of force majeure, lasting continuously for a period of at least four (4) weeks, the two parties should consult each other regarding the further implementation of the contract.
- 19.3 The above-mentioned force majeure conditions/clause shall also apply in the works of sub-contractors/suppliers of the contractor.
- 19.4 However, the Supplier shall not be liable for liquidated damages or termination/cancellation of order/contract if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of force majeure.

# VOLUME II

## ANNEXURE-I

### TECHNICAL SPECIFICATIONS OF SOLAR WATER HEATING SYSTEMS

<b>1. ABSORBER MATERIAL</b>	Absorber shall be of copper sheet and copper tube/Electro Grade Copper-Copper																
Thickness of sheet Riser	34 SWG (IS 191) Diameter : 12.7± 0.5 mm Thickness : 0.56 mm (IS 2501) Number : As per BIS																
Header	Diameter : Minimum 25.4± 0.5 mm Thickness : 0.71 mm (IS 2501) Number : 2 Projection out side : 40 mm ± 0.5 mm including flanges of the collector box.																
Space between Riser Tubes	120 mm maximum from centre to centre of the riser. The free edges at the sides not to exceed 60 mm from centre of the extreme end riser tube. For independent fins or joints in the sheet an overlap of minimum 2 mm shall be provided.																
Bonding between Riser & Sheet	Full length of all risers shall be welded with the absorber sheet. In case of brazing/soldering/TIG welding of continuous nature, un-brazed/unsoldered portion should not exceed more than 10% of the length of the riser. For brazing/soldering, minimum 60% tin solder or suitable brazing material shall be used. The flux used in soldering shall be mechanically removed and neutralized with the solution of sodium carbonate to avoid corrosion after installation. The flux used should be non greasy and non corrosive.																
Coating	Selective coating continuous Electroplating of Black Chrome over nickel substrate with heat treatment to withstand temperature up to 300°C with absorptivity >0.92 and emissivity <0.2																
<b>2. FLAT PLATE COLLECTOR</b> Overall Dimensions (mm)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Size</th> <th>Length</th> <th>Width</th> <th>Height</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1860±10</td> <td>1240±10</td> <td>100±10</td> </tr> <tr> <td>B</td> <td>2120±10</td> <td>1040±10</td> <td>100±10</td> </tr> <tr> <td>C</td> <td>2000±10</td> <td>1000±10</td> <td>100±10</td> </tr> </tbody> </table>	Size	Length	Width	Height	A	1860±10	1240±10	100±10	B	2120±10	1040±10	100±10	C	2000±10	1000±10	100±10
Size	Length	Width	Height														
A	1860±10	1240±10	100±10														
B	2120±10	1040±10	100±10														
C	2000±10	1000±10	100±10														
<b>3. COLLECTOR BOX MATERIALS</b> Aluminium	Aluminium (HE9T grade) extruded sections of size approximately 100 mm x 25 mm channel sections (within the tolerance given above) and of thickness 1.6 mm for the sides 0.71 mm aluminium sheet for the bottom (tolerance 10%)  1.2 mm thick aluminium angle (dimensions 25 mm x 25 mm x 1.2 mm) retainer for glass.																
Fabrication of the box	Side channel shall be welded by inert arc or gas brazing to ensure leak proof continuity of the joints of the box.																
Attachment of Bottom Sheet	Bottom sheet may be joined with spot welding or self threaded nickel plated screws. In case of screw joint wooden battens shall be provided to secure the screws. The screwed/riveted joint shall be made leak proof by sealing paste of Zinc Oxide based or rubber based or silicon rubber based or epoxy based sealing compounds.																
<b>4. TESTING OF RISER- HEADER ASSEMBLY</b>	It should be tested for leakage and strength at a Minimum hydraulic/ pneumatic pressure of 5 kg/sq.m																
<b>5. COLLECTOR BOX INSULATION</b> Back Insulation	Insulation shall be providing at back and sides. Thermal resistance (R) of insulation material shall be minimum 0.96 sq.m deg. C/W for back																



<p>Material name</p> <p>Rock wool Glass wool Mineral wool</p> <p>Side insulation</p>	<p>insulation and minimum 0.48 sq.m deg. C/W for side insulation. This shall be derived after determining thermal conductivity (K) value at 100 deg.C mean temperature in accordance with IS 3346. The thickness of the insulation material (L) may be derived by the equation <math>R = L/K</math> or the insulation materials with following specifications may be used:</p> <table border="1" data-bbox="560 320 1043 477"> <thead> <tr> <th>K</th> <th>R</th> <th>Thickness</th> <th>Density</th> </tr> <tr> <th>W/MK sq.m</th> <th>C/W</th> <th>(MM)</th> <th>(KG/Cum)</th> </tr> </thead> <tbody> <tr> <td>0.029</td> <td>1.67</td> <td>50</td> <td>48</td> </tr> <tr> <td>0.03</td> <td>1.67</td> <td>65</td> <td>24</td> </tr> <tr> <td>0.028</td> <td>1.67</td> <td>50</td> <td>48</td> </tr> </tbody> </table> <p>The insulation must with stand a temperature of 250 deg.C. Aluminium foil of thickness 0.015 mm to 0.021 mm shall be used for covering the back insulation.</p> <p>25 mm thick insulation of specification as mentioned above.</p> <p>Glass wool Resin Bonded/Rock wool/Rigid Polyurethane of thickness 25 mm, minimum shall be used so as to achieve R value= 0.08 as per IS 3346:1980.</p>	K	R	Thickness	Density	W/MK sq.m	C/W	(MM)	(KG/Cum)	0.029	1.67	50	48	0.03	1.67	65	24	0.028	1.67	50	48
K	R	Thickness	Density																		
W/MK sq.m	C/W	(MM)	(KG/Cum)																		
0.029	1.67	50	48																		
0.03	1.67	65	24																		
0.028	1.67	50	48																		
<p><b>6. FRONT GLAZING</b></p> <p>Material thickness Transmittance General appearance of glass Aperture area Spacing between cover plate And Absorber surface</p>	<p>Single piece glass Toughened – 4.0±0.2 mm (IS 2553(Part-I), transitivity&gt;85%@ near normal incidence. 2.3 sq.m (approx.) for Size A collector 20 mm to 40 mm.</p>																				
<p><b>7.HEADER FLANGES</b></p>	<p>Brass flanges of 62±3 mm diameter and minimum thickness of 4 mm with provision of four number of GI plated nuts bolts with diameter of 6 mm- 8 mm shall be used. Flanges shall be brazed to the header and brazing tested for leakage at the test pressure of 10 kg/sq.cm. In no case crude soldered flanges shall be used. The assembly of the flanges should be at right angle to the header area to ensure proper assembly at the site for installation.</p>																				
<p><b>8.GROMMET</b></p>	<p>Suitable sealing between the inlet and outlet of header and casing of the following materials shall be provided. Neoprene, EPDM, Silicon rubber or butyl rubber etc.</p> <p>The grommet shall be suitable for a temperature upto 125 deg.C and mechanical loading during transportation of collectors. Typical size of grommet may be 40 mm outer dia. and 25 mm inner dia.</p>																				
<p><b>9.ASSEMBLY OF COLLECTORS</b></p>	<p>The load of the absorber should not be on the insulation. It should be taken by the collector box.</p> <p>The air gap between the glazing and the absorber should be 25 mm (± 5 mm). Insulation should not be allowed to slide. Glazing shall be fixed on the collector box by using EPDM/ Neoprene/ Synthetic rubber channels.</p> <p>The glass should be firmly held, without strain taking into account the expansions of glass. A typical example is by retaining the glazing with the help of self tapping screws and aluminium angle retainer of dimensions 25 mm x 25 mm x 1.5 mm fixed on the top of the box, it shall be ensured that the screws are not touching the glass edge.</p> <p>Top surface along the edge between the glass and the aluminium angle shall be caulked with suitable sealants such as zinc oxide based/rubber</p>																				

	based/silicon rubber based or polysulphide rubber sealants.
<b>10.GASKET FOR FLANGES</b>	3 mm thick gasket of Neoprene/synthetic rubber gasket shall be used for sealing the joints between flanges.
<b>11.COLLECTOR SUPPORT FRAME</b>	The structure should be in a position of withstand a wind velocity of 120 kms/hr., shall be made with angle iron of 35 mm x 35 mm x 4 mm, 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>12.PAINTING OF STANDS</b>	Proper cleaning and degreasing of the surface should be done with the help of three in one solution before painting. Two coats of zinc chromate red oxide primer shall be applied followed by two coats of enamel paint of suitable colour .
<b>13.STORAGE TANK (HOT WATER)</b>	
(a) Material	Stainless Steel (SS 304/ IS 1730 grade)/316
(b) Thickness	Minimum Tank Capacity Thickness 20 gauge (0.91 mm) for 100 LPD
(c) Insulation and installation	<p>All sockets and internal fitting of the tanks should of stainless steel. 100 mm thick insulation of 48 kg/cu.m density having approx. k value 0.03 W/mk and R value 3.34 sq.mdeg.C/W to withstand a temp. of 250 deg.C. Thin polythene sheet shall be used as covering between the glass wool and the cladding sheet besides the retaining material such as chicken mesh etc.</p> <p>Aluminium sheet of thickness 24 SWG shall be used for cladding the tank insulation. Solar Water Heating System (SWHS) upto and including 500 lpd may be insulated with 40 mm thermal grade CFC free PUF insulation of 32 kg/meter cube or higher density. PUF insulation could be pre extruded type fitted with FRP exterior cladding or alternatively injection moulded in a twin walled steel tank and PPE end cap.</p> <p>The storage tank shall be properly installed at site using enameled coated appropriate size angle iron stands, girder, cement concrete pedestals of 1:2:3 ratio or any other specific provision suitable ratio or any other specific provision suitable to site to ensure the stability against heavy storm etc. but not less than 1'x1'x6" dimensions.</p> <p>External of the tank shall be properly insulated so that hot water temperature does not decrease by more than 5 deg.C in about 16 hrs. time.</p>
<b>14. PIPING : Material Insulation</b>	<p>1"to 2" dia. Medium class (B class) GI as per IS 1239 shall be used for piping.</p> <p>25 mm thick insulator of 48 kg/cu.m density and K value + 0.03 W/MKR value + 1.67 sq.m C/W to withstand temperature of 250 deg.C be used.</p> <p>Thin plastic sheet shall be used as covering between glass wool and aluminium cladding besides other retaining material like chicken mesh etc.</p> <p>26 SWG thick aluminium sheet shall be used for cladding the insulated pipe.</p> <p>The pipe line should be properly supported and fixed with clamp with the help of suitable size stand/civil structure (cement concrete ratio 1:4) ISI mark strainer of standard make should be fitted in the main cold water supply line before the system.</p>

<b>15. VALVES/NIPPLES/TEES/BENDS</b>	Gun metal valve ISI marked shall be used. Nipple/tees and bends of ISI marked of medium class GI (B class) shall be used. Air vents in each row are to be provided.
<b>16. INSTRUMENTATION</b>	<p>Temperature gauge: 1 No. dial. Type ( for Hot Water Storage Tank/ Outlet)</p> <p>Gun metal strainer: 1 No. (at Cold Water Inlet)</p> <p>Water meter: 1 at the inlet of cold water tank. Maximum 2 nos. of chrome plated brass taps for systems upto 200 lpd and thereafter 1 tap per 200 LPD of superior quality for distribution line.</p>
<b>17. COLD WATER TANK</b>	HDPE/LDPE material with Gun metal float valve (ISI marked) equal to the capacity of Hot Water Storage Tank.
<b>18. STANDS &amp; PEDESTALS FOR THE TANKS</b> (hot water tank/cold water tank)	<p>The tank will be mounted on stands made out of angle iron frame of 35 x 35 x 4 mm up to 500 liters, 50 x 50 x 6 mm up to 2000 liters and 65 x 65 x 6 mm for capacity above 2000 liters with each leg duly grouted with PCC 1:2:4 of 1'x1'x1' size.</p> <p>The cold water tanks will be placed over angle iron frame having 4 cross members in 4 legs with 5 mm thick MS sheet for full bottom support fixed of 4 horizontal members based on the size of the cold water tanks.</p>
<b>19. SYSTEM LAYOUT &amp; DESIGN</b>	<p>Maximum number of collectors in series should not be more than ten.</p> <p>Maximum number of collectors in parallel in one row without the use of any piping connections should not be more than six.</p> <p>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>System shall have a suitable expansion/mark up tank at a high point in the system to ensure that collectors run full all the times. Capacity of this expansion/mark up tank should be 1.5% of the system capacity for all systems.</p>
<b>20. ELECTRICAL BACK UP</b> (only upto 100 lpd)	<p>Heater Built in with Thermostat. For 100 LPD – 2 KW</p> <p>Anchor make or equivalent ABB/Siemens/Havel/ISI MARKED</p> <p>Anchor make or equivalent ABB/Siemens/Havel/ISI MARKED</p> <p>Wire should be of not less than 2.5 sq.mm or 4 sq.mm, Cu, armored type.</p>
<b>21. Tool Kit</b>	With normal hardware and connecting accessories.

**PART – I**  
**TECHNICAL INFORMATION**

1.	Category of the Tenderer	Manufacturer of Solar Water Heating Systems.
2.	Name & address of the firm/supplier complete with telephone, MOBILE, fax nos. & E-mail etc.	
3.	Name and designation of the authorized signatory to whom reference shall be made	
4.	Present activities/business of the firm (i) Solar Water Heating (ii) Other activities	
5.	Type of organization - Sole proprietor - Partnership firm - Private Ltd. Company - Public Ltd. Company - Any others	
6.	Name & address of subsidiaries, if any, with details of board of directors	
7.	Vat/Sale tax registration number (attach copy)	
8.	Detail of any existing service network in Manipur (name & address of service centers, year of opening)	
9.	EMD of Rs...../- Or Certificate for exemption of EMD for firms under approve source category	Attached/not attached DD No.....dated..... Bank.....Payble at.....
10.	Cost of Bid Document Rs. 3,000/-	Attached not attached DD No.....dated..... Bank.....Payble at..... Or Receipt No.....dated.....
11.	Attested copy of valid BIS Certificate attached or not? Should be attached in full.	Attached/not attached
12.	Authorised dealership agreement	Attached/not attached
13.	List of SWHS projects executed in last three years attached or not ( the value should be Rs.1 core or more)	Attached/not attached
14.	Literature/leaflets on products	Attached/not attached
15.	Authority letter from company for signing the papers on behalf of company with seal.	Attached/not attached
16.	Copies of RCs of other States to which the applicant is a party.	Attached/not attached
17.	In case the bidder is seeking purchase preference, certificate from the competent authority.	Attached/not attached

## PART – II

## TECHNICAL BID

Sl. No.	Item	Quoted/Offered material	Specification L/B/H or D/T/I	Other specifications if any
1.	<p><b>Solar Collector</b>  Collector Size  Absorber plate  Absorber coating  Coating absorptivity  Coating emissivity  Riser material &amp; Diameter  Number of risers  Absorber riser bonding  Lower Header  Upper Header  Glazing  Glazing Transmission  Collector Box  Gasket  Bottom insulation  Side insulation</p> <p>Collector Test Certificate  (attach separately along with the efficiency curve)</p> <p>Collector support structure, weight in kilograms support should be water proof and painted.</p>			
2.	<p><b>Storage Tank</b>  Tank Material (SS)  Tank inside coating  Tank insulation  Tank outside cladding  Tank sheet thickness</p>			
3.	<p><b>Piping</b>  Piping material  Pipeline size  Pipe insulation with wiremesh and polythene sheet reinforcement with gunny bag material</p> <p>Pipe cladding</p>			
4.	<p><b>Calculations</b>  (Attach separate sheet for each system). This should contain the details of the month, performance</p>			

	of the system, output and temperature.			
5.	Layout drawing with all instrument positions including the details of civil foundations (attach separate sheet)			
6.	Electrical back up system  Type of system, wattage element make and material			
7.	<b>Instrument and control panels</b>			
Sl. No.	Name of Instrument position	Make	No.	

**(Not: Any better specification, proposed with reasons, may be accepted by MANIREDA without financial implications. However, the latest BIS specifications will be followed for this BID. The decision of the Director, MANIREDA will be final in this regard).**

**Signature of the authorised signatory  
of the firm with Seal.**

PRICE BID

**Uploaded at [www.manipurenders.gov.in](http://www.manipurenders.gov.in)**

**Format for forwarding letter  
(To be submitted by tenderers on the official letterhead of the company)**

No.

Dated:

To,

The Director,  
Manipur Renewable Energy Development Agency (MANIREDA)  
2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T. Line, Near Hotel Imphal,  
Imphal – 795001.

Subject: Offer in response to Notice Inviting No. 64/6/SWH/MANIREDA/2022-23/6 dated 23/1/2023 for supply, installation & commissioning of Solar Water Heating Systems in Manipur.

Sir,

Please find enclosed our offer in compliance with terms and conditions of the Notice Inviting Tender No. 64/6/SWH/MANIREDA/2022-23/6 dated 23/1/2023. As specified, the offer has been submitted in the prescribed format and the original tender document duly signed by our authorized signatory is enclosed as a token of acceptance all the terms and conditions of the BID.

Our rates shall remain valid for a period of 12 months from the date of opening of tender. The delivery period, guarantee and specifications as required in the BID are acceptable to us.

We hereby declare that we have not been black listed or debarred from executing similar type of work by any central/state/public sector undertakings/departments in the county during past three years.

We enclose the following documents along with the bid:

- a)
- b)
- c)
- d)

Yours faithfully,

(Authorised Signatory)

Name:

Designation:

Company Seal:



**Format for Confirmation of minimum eligibility condition  
(To be submitted by Tenderers on the official letterhead of the company)**

No.

Dated:

To,

The Director,  
Manipur Renewable Energy Development Agency (MANIREDA)  
2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T. Line, Near Hotel Imphal,  
Imphal – 795001.

Subject: Confirmation of minimum eligibility condition for Notice Inviting Tender No. 64/6/SWH/MANIREDA/2022-23/6 dated 23/1/2023 for supply, installation & commissioning of 1000 Nos. Solar Water Heating Systems (100 LPD) in Manipur.

Sir/Madam,

Having carefully read the above said tender document, we hereby confirm that we fulfil the eligibility conditions for supply of stores against this tender. Our qualifications in this regard are as under.

- a) We are Flat Plate Collector manufacturer having valid BIS certification as on 31.3.2011 or we had applied for the renewal of the same on that date (proof to be attached).
- b) Tender must produce proof of support from organizations having such experience (Proof from Govt. organization will be preferred).
- c) We are applying under **Manufacturers category**, (who have not supplied the systems as mentioned at clause- (b) above so far, but are having a BIS Certification for Flat Plate Collectors. Our products are as per the BID be, so we may considered for **trial orders up to a maximum limit of 10% of the total tendered quantity**. We shall abide by the decision of the Director, MANIREDA in this regard.
- d) We or any other company under the same management has not been blacklisted or debarred by any Central/State/Public Agency from carrying out similar business for the current financial year.

Yours faithfully,

(Authorised Signatory)

Name:

Designation:

Company Seal:

**Proof of having executed Work Orders**

Details of orders received and executed by manufacturer for supply of Solar Water Heating Systems during last three years (must be of value over Rs. 5 Crore or more).

Sl.No	Name of agency/organization/ Customer/ site	P.O. No/date ordered Qty.	Capacity of the system	Date of commissioning	Cost	Whether commissioned in time or delayed?
1	2	3	4	5	6	7

Total value of the work orders for last three years.

Note: (1) Attach photocopies of Purchase orders

(2) Attach photocopies of certificate of satisfactory performance issued by concerned Agency/ Organization

**(Signature of Authorized Signatory)**

**Name .....**

**Designation .....**

**Company seal .....**

**ATTESTED BY C.A**

(Separate sheet may be used for giving detailed information in seriatim duly signed. This tender proforma must be submitted duly signed in case separate sheet is submitted).

**Format for authorizing for attending Bid Opening Meeting**  
(To be submitted by bidders on official letter-head of the company)

No.....

Dated .....

To,

The Director,  
MANIPUR RENEWABLE ENERGY DEVELOPMENT AGENCY (MANIREDA),  
2<sup>nd</sup> Floor, South Block, Secured Office Complex, A.T. Line, Near Hotel Imphal,  
Imphal – 795001.

**Sub.: Authorizing letter for attending Bid Opening Meeting of Notice Inviting Bid No.....  
for “Tender for Setting up of Solar Water Heating Systems (Flat Plate Collector) in  
Manipur.”**

Sir,

We hereby authorize ..... (Name & Designation) to attend the Bid  
Opening Meeting to be held on ..... at MANIREDA on behalf of our company. He is also authorized to  
provide any clarification, if any, and signing of documents, etc. at the time of opening.

The specimen signature of authorized person is as follows:

(Specimen Signature)  
Name & Designation

Yours faithfully,

(Authorized Signatory)  
Name  
Designation  
Company Seal

**Proforma – V**  
**(For Firms bidding with Consortium Partners)**

**Format of Consortium Agreement to be entered amongst all Members of a bidding Consortium**

*[To be on Non Judicial Stamp paper of Rupees One Hundred only (INR 100/-) or appropriate value as per Stamp Act relevant to place of execution, duly signed on each page. Foreign entities submitting Bid are required to follow the applicable law in their country.]*

FORM OF CONSORTIUM AGREEMENT BETWEEN

M/s. ...., M/s. ...., and M/s.  
..... bidding for NIB No. 64/6/SWH/MANIREDA/2022-23/6 for

**Design, manufacture, supply, installation and commissioning of 1000 Nos. of Solar Water Heater (100 LPD Flat Plate Collector type) including 5 years Maintenance and Performance Warrantee Contract (MPWC) in Manipur**

THIS CONSORTIUM AGREEMENT (hereinafter referred to as “Agreement”) executed on this ..... [date] day of ..... [month], ..... [year] between:

1. M/s. ...., a company incorporated under the laws of ..... and having its Registered Office at ....., (hereinafter called the "Member 1," which expression shall include its successors, executors and permitted assigns);
2. M/s. ...., a company incorporated under the laws of ..... and having its Registered Office at ....., (hereinafter called the "Member 2," which expression shall include its successors, executors and permitted assigns);
3. M/s. ...., a company incorporated under the laws of ..... and having its Registered Office at ....., (hereinafter called the "Member 3," which expression shall include its successors, executors and permitted assigns); for the purpose of submitting the Bid in response to the Tenders and in the event of selection as Selected Bidder to comply with the requirements as specified in the Tenders and ensure execution of the Tenders’ Scope of Work as may be required to be entered into with Manipur Renewable Energy Development Agency (MANIREDA) having its office at Secured Office Complex, 2<sup>nd</sup> Floor, South Block, A.T. Line, Near Imphal Hotel, Imphal – 795001.

Member 1, Member 2 and Member 3 are hereinafter collectively referred to as the “Members” and individually as a “Member”.

WHEREAS the Tenders stipulate that the Bidders qualifying on the strength of a Bidding Consortium shall submit a legally enforceable Consortium Agreement in a format specified in the Tender, whereby each Consortium Member undertakes to be liable for its Roles and Responsibilities, provide necessary guarantees and pay required fees as required as per the provisions of the Tender, as specified herein.

WHEREAS any capitalized term in this Agreement shall have the meaning ascribed to such term in the Tender document.

NOW THEREFORE, THIS INDENTURE WITNESSTH AS UNDER:

In consideration of the above premises and agreement all the Parties in this Consortium do hereby mutually agree as follows:

1. In consideration of the selection of the Consortium as the Bidding Consortium by MANIREDA, we the Members of the Consortium and Parties to the Consortium Agreement do hereby unequivocally agree that M/s. .... [Insert name of the Lead Member], shall act as the Lead Member for self and agent for and on behalf of M/s..... and M/s. .... [the names of all the other Members of the Consortium to be filled in here].

2. The Lead Member is hereby authorized by the Members of Consortium to the Consortium Agreement to bind the Consortium and receive instructions for and on behalf of all Members. The Roles and Responsibilities of all other members shall mentioned be as per the Annexure to this Agreement.
3. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all their respective Roles and Responsibilities. Each Consortium Member further undertakes to be individually liable for the performance of its part of the Roles and Responsibilities without in any way limiting the scope of collective liability envisaged in this Agreement in order to meet the requirements and obligations of the Tender.
4. Subject to the terms of this Agreement, the share of each Member of the Consortium in the issued equity share capital of the Project Company is/shall be in the following proportion:

<b>Name</b>	<b>Percentage</b>
Member 1	---
Member 2	---
Member 3	---
<b>Total</b>	100%

5. In case of any breach of any of the commitment as specified under this Agreement by any of the Consortium Members, the Lead Members of the Consortium shall be liable to meet the obligations under the Tender.
6. Except as specified in the Agreement, it is agreed that sharing of responsibilities as aforesaid and obligations thereto shall not in any way be a limitation of responsibility of the Lead Member under these presents.
7. This Consortium Agreement shall be construed and interpreted in accordance with the Laws of India and Courts at Imphal alone shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
8. It is hereby agreed that the Lead Consortium Member shall furnish the Bid Security, as stipulated in the Tender, on behalf of the Bidding Consortium.
9. It is hereby agreed that in case of selection of Bidding Consortium as the Project Implementing Consortium, the Parties to this Consortium Agreement do hereby agree that they shall furnish the Performance Guarantee and other commitments to MANIREDA as stipulated in the Tender. The Lead Member shall be responsible for ensuring the submission of the Performance Guarantee and other commitments on behalf of all the Consortium Members.
10. It is further expressly agreed that the Consortium Agreement shall be irrevocable and, for the Project Implementing Consortium, shall remain valid over the term of the Project, unless expressly agreed to the contrary by MANIREDA.
11. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Consortium Members respectively from time to time in response to the Tender for the purposes of the Bid.
12. It is expressly understood and agreed between the Members of the Consortium and Parties that the responsibilities and obligations of each of the Members shall be as delineated as annexed hereto as Annexure forming integral part of this Agreement. It is further agreed by the Members that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities and liabilities of the Members, with regards to all matters relating to the execution of the Bid and implementation of the Project envisaged in the Tender.
13. It is hereby expressly agreed between the Parties to this Consortium Agreement that neither Member shall assign or delegate or subcontract its rights, duties or obligations under this Agreement except with prior written consent of MANIREDA.

14. This Consortium Agreement:

- a. has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
- b. sets forth the entire understanding of the Parties hereto with respect to the subject matter hereof; and
- c. may not be amended or modified except in writing signed by each of the Parties and with prior written consent of MANIREDA.

IN WITNESS WHEREOF, the Parties to the Consortium Agreement have, through MANIREDA, executed these presents and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

1. For M/s. .... (Member 1)

*[Signature of Authorized Representative]*

.....

*Name of Authorized Representative]*

*[Designation of Authorized Representative]*

Witness 1:

*[Signature of Witness 1]*

.....

Name:

Designation:

Witness 2:

*[Signature of Witness 2]*

.....

Name:

Designation:

2. For M/s. .... (Member 2)

*[Signature of Authorized Representative]*

.....

*Name of Authorized Representative]*

*[Designation of Authorized Representative]*

Witness 1:

*[Signature of Witness 1]*

.....

Name:

Designation:

Witness 2:

*[Signature of Witness 2]*

.....

Name:

Designation:

Attested:

*[Signature]*

.....

(Notary Public)

Place: .....

Date: .....

**Annexure to the Consortium Agreement**

Role and Responsibility of each Member of the Consortium:

- 1. Roles and Responsibilities of the Member 1 (Lead Consortium Member):
- 2. Roles and Responsibilities of the Member 2
- 3. Roles and Responsibilities of the Member 3

-----End of Bid Document -----