TENDER SCHEDULE

FOR

DESIGN, MANUFACTURING, SUPPLY, ERECTION, TESTING AND COMMISSIONING OF SOLAR WATER HEATING SYSTEMS (ETC TYPE) AT DIFFERENT LOCATIONS OF TS JAILS IN TELANGANA STATE.


CLOSING DATE : 15.10.2019 AT 3.00 PM
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PART – I

GENERAL DETAILS
Online tenders are hereby invited from the BIS/MNRE approved manufacturers and TSREDCO SPV/Solar Thermal registered suppliers, who are involved for design, manufacture, supply, erection, testing and commissioning of Solar Water Heating Systems (Evacuated Tube Collector type) of different capacities according to the BIS/MNES specifications. Interested bidders can download the bids online from 30.09.2019 and submit the same, from 30.09.2019 to 15.10.2019 till 03:00PM through www.tender.telangana.gov.in. For further details please visit our website: https://tsredco.telangana.gov.in

Date: 30.09.2019

VC & MD,  
TS REDCO
Telangana State Renewable Energy Development Corporation Ltd  
Tender Notice. No. TSREDCO/SE/SWHS/TS-JAILS/2019-20

TENDER SCHEDULE

TSREDCO invites sealed tenders comprising Pre-qualification, technical bid and price bid from the eligible bidders for Design, manufacture, supply, erection, testing and commissioning of Solar Water Heating Systems (Evacuated Tube Collector type) at different locations of TS Jails in Telangana state with Five Years of Comprehensive Maintenance Contract.

Time schedule of various tender related events

<table>
<thead>
<tr>
<th>Event</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid calling date</td>
<td>30.09.2019</td>
</tr>
<tr>
<td>Bid Documents Downloading Start date</td>
<td>30.09.2019</td>
</tr>
<tr>
<td>Bid Document Downloading End Date</td>
<td>15.10.2019 till 03.00 PM</td>
</tr>
<tr>
<td>Last date for uploading of online documents</td>
<td>15.10.2019 till 03.00 PM</td>
</tr>
<tr>
<td>Last date for submission of Hard copies of documents uploaded online</td>
<td>15.10.2019 till 04.00 PM at D. No. 6-2-910, Visvesvaraya Bhavan, The Institution of Engineers Building, Khairatabad, Hyderabad, 500 004, Telangana State, India</td>
</tr>
<tr>
<td>Pre-qualification &amp; Technical Bid opening date/time</td>
<td>16.10.2019 at 4:00 PM</td>
</tr>
<tr>
<td>Price Bid opening date/time</td>
<td>17.10.2019 at 3:00 PM</td>
</tr>
<tr>
<td>Contact person</td>
<td>General Manager, TSREDCO, Hyderabad</td>
</tr>
<tr>
<td>Sl.</td>
<td>Particulars</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>Bid Document fee (Non refundable)</td>
</tr>
<tr>
<td>2.</td>
<td>Name of the Work</td>
</tr>
<tr>
<td>3.</td>
<td>Minimum Eligibility Criteria</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Amount of EMD/Bid Security</td>
</tr>
<tr>
<td>5.</td>
<td>Bid Validity Period</td>
</tr>
<tr>
<td>6.</td>
<td>Performance Security Deposit (SD)</td>
</tr>
</tbody>
</table>

The firms are having the Turnover minimum 100 Lakhs in any one financial year from last three years i.e., from 2016-17 to 2018-19 financial years.
“TSREDCO, Hyderabad” OR Bank guarantee from any nationalized/scheduled bank. The bank guarantee should be valid for a period of sixty six months (5.5Years). No interest shall be paid by TSREDCO on the amount of Performance Guarantee deposit.

Note:


2. Tenders not received on prescribed form and manner shall not be considered and will be rejected out-rightly. Tenders without Application fee/Earnest money will not be considered.

3. The cost of tender document should be enclosed by way of Demand Draft of Rs.29,500/- (Including 18% GST) in favour of TSREDCO, payable at Hyderabad and this D.D. is to be inserted in the technical bid of the tender document.

4. Industries exempted from payment of EMD shall enclose duly attested Photostat copy of their Registration Certificate showing the materials of Solar Water Heating Systems (ETC/FPC). They are permitted to manufacture/to do rendering services and the period of validity of the certificate as proof of eligibility for exemption from payment of EMD/Bid Security.

5. In respect of Minimum eligibility criteria (S.No 3 above tabular Colum), relevant attested copies of approvals of BIS/MNRE/TSREDCO shall be submitted along with Technical bid.

6. The tenderer should have BIS/MNRE certificate as manufacturers of Solar Water Heating Systems.

7. The bidder should have income tax/sale tax clearance, GST registration etc. as required under the rules. Balance sheet of last three years is required with tender.

8. All relevant required documents along with evidences are to be inserted in technical bid, and only quoted rates (as per Format enclosed) is to be inserted in the financial bid.

9. Financial bid will be opened of those bidders who would duly qualify in the technical bid.
PART - II

INSTRUCTIONS TO TENDERERS

&

GENERAL TERMS AND CONDITIONS
1. SCOPE OF WORK:
The specifications cover design manufacture, supply, erection, testing and commissioning of Solar Water Heating Systems with 80 deg. Temp, of following capacities to be supplied according to the BIS/MNRE specifications to be supplied at different locations of TS Jails in Telangana state with Five Years of Comprehensive Maintenance Contract including transportation charges & applicable all Taxes.

The Work will be allotted to L1 to L3 bidders with matching the L1 price as follows.

• L1 bidder – 50%, L2 – 25% and L3 – 25%

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Location</th>
<th>Capacity (LPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Central Prison, Hyderabad</td>
<td>1500</td>
</tr>
<tr>
<td>2</td>
<td>Central Prison, Cherlapalli</td>
<td>2500</td>
</tr>
<tr>
<td>3</td>
<td>Central Prison, Warangal</td>
<td>1300</td>
</tr>
<tr>
<td>4</td>
<td>Special Prison for Women, Hyderabad</td>
<td>750</td>
</tr>
<tr>
<td>5</td>
<td>District jail, Nizambad</td>
<td>750</td>
</tr>
<tr>
<td>6</td>
<td>District jail, Karimnagar</td>
<td>750</td>
</tr>
<tr>
<td>7</td>
<td>District jail, Adilabad</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
<td>District jail, Khammam</td>
<td>500</td>
</tr>
<tr>
<td>9</td>
<td>District jail, Nalgonda</td>
<td>500</td>
</tr>
<tr>
<td>10</td>
<td>District jail, Mahabub Nagar</td>
<td>500</td>
</tr>
<tr>
<td>11</td>
<td>District jail, Sangareddy</td>
<td>500</td>
</tr>
<tr>
<td>12</td>
<td>State Institute of Correctional Administration</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>10550 LPD</strong></td>
</tr>
</tbody>
</table>

2. ELIGIBLE TENDERERS
The Tenderer shall provide sufficient documentary evidences to satisfy the following conditions that the Tenderer:

(a) Is an indigenous manufacturer in the field of Solar Water Heating System installations (Copy to be enclosed)

(b) The Tenderer fullfill the terms and conditions of eligibility as an indigenous BIS/MNRE approved manufacturer of Solar Water Heating Systems for the ETC Model Manufactures for FPC Model in accordance with the guidelines of Ministry of New and Renewable Energy, Government of India. (Copy to be enclosed)

(c) Has adequate plant and manufacturing capacity available, to perform the works properly and expeditiously within the time frame specified in the tender document.

(d) Has established quality assurance systems and organization designed to achieve high level of equipment reliability in manufacturing of the Solar Systems.

(e) Has adequate financial stability and status to meet the financial obligations Pursuant
Telangana State Renewable Energy Development Corporation Ltd

Tender Notice. No. TSREDCO/SE/SWHS/TSJAILS/2019-20

to the scope of work. The firm must have cumulative annual turnover of minimum 100 Lakhs in any one financial year from last three years i.e., from 2016-17 to 2018-19 financial years. Relevant documents certified by a chartered Accountant shall be enclosed.

(f) Has experience of manufacturing, supply installation, testing, installation / commissioning and maintenance/after sale services in the field of Solar Water Heating Systems of more than 10,000 LPD cumulative capacities in the last three years period.

(g) The firm will inform this office one week in advance when the consignment is ready for inspection. The inspection of the complete system will be carried out either at the works of the manufacturer or at site as per BIS/ MNRE specifications and guide lines. After successful testing, dispatch clearance will be given.

(h) Has adequate field service setup to provide good after sale services including necessary repair and maintenance in the state of Telangana.

(i) Has provided good after sale services for the works done by him during past years.

(j) Has Valid Test Certificates of the Solar Water Heating Systems.

(k) Fulfills all requirements as per provisions under JNNSM, MNRE, GOI.

(l) The bidder shall be required to have adequate post installation localized service facilities/centers

The above stated requirements are compulsory to be fulfilled by the tenderer and TSREDCO may also ask for any additional information as may be deemed necessary in public interest.
SECTION 2
THE TENDER DOCUMENT

2.1 CONTENT OF TENDER DOCUMENT

2.1.1 The tender procedure and contract terms are prescribed in the tender document. In addition to the invitation of tender, the tender document includes the various other documents as given in the table of particulars of tender.

2.1.2 The tenderer is expected to examine all instructions, terms and conditions, specifications, forms and formats etc as mentioned/ enclosed in the tender document. Failure to furnish all information required in the tender document or submission of a tender not substantially responsive to the tender document in every respect will be at the tenderer’s risk and is likely to result in out-right rejection of the tender.

2.2 INFORMATION REQUIRED WITH THE PROPOSAL

2.2.1 The tender must clearly indicate the name of the manufacturer, the types and model & make of each principal item of equipment proposed to be supplied. The tender may also contain details of specifications and other comprehensive descriptive materials in support of technical specifications.

2.2.2 The above information may be provided by the Tenderer in the form of separate sheets, specifications, catalogues etc.

2.2.3 Any tender not containing sufficient descriptive material to describe the proposed equipment may be treated as incomplete and hence may be rejected. Such descriptive materials and specifications submitted by the Tenderer will be retained by TSREDCO. Any deviations from these will not be permitted during the execution of contract, without specific written permission of TSREDCO.

2.3 CLARIFICATION OF TENDER DOCUMENT

2.3.1 Any prospective tenderer requiring any clarification on the tender document regarding various provisions/requirements/preparation/ submission of the tender, may contact TSREDCO in writing by letter or fax/ email before 48 hours of closing time of the tender. Queries received later shall not be entertained.

2.3.2 Verbal clarifications and information shall not be entertained in any way.

2.4. AMENDMENTS IN TENDER DOCUMENT

2.4.1 At any time prior to the due date for submission of the tender or even prior to the opening of the financial bid, TSREDCO may for any reason, whether at its own initiative or as a result of a
request for clarification/ suggestion by a prospective tenderer, amend the tender document by issuing a notice.

2.4.2 The amendments will be notified on the website at least 2 days before the proposed date of submission of the tender. TSREDCO will bear no responsibility or liability arising out of non receipt of the information in time or otherwise. If any amendment is required to be notified within 2 days of the proposed date of submission of the tender, the last date of submission shall be extended for a suitable period of time.

2.4.3 In case amendments is notified after submission of the tender (prior to the opening of financial bids), all the tenders received by TSREDCO shall be returned in sealed condition to the concerned tenderers through registered post or courier, for getting their offer revised according to the amended terms and conditions.

All the notices related to this tender which are required to be publicized shall be uploaded only on http://www.tsredco.telangana.gov.in & www.tender.telangana.gov.in
SECTION 3
PREPARATION OF TENDER

3.1 LANGUAGE OF TENDER AND MEASURE
The tender prepared by the tenderer along with all the related documents shall be in English. Unit measurements shall be metric in accordance with International System. All correspondence between the tenderer and TSREDCO shall also be in English.

3.2 EARNEST AND SECURITY MONEY
3.2.1 The tenderer shall furnish earnest money of Rs.2,00,000/- by way of Demand Draft in favour of TSREDCO, payable at Hyderabad or Rs.4,00,000/- of Bank Guarantee from a nationalized/scheduled bank. Firms claiming Exemptions for EMD shall submit NSIC/ SSI/MSME certificate showing the materials of Solar Water Heating Systems (ETC/FPC).

3.2.2 The earnest money may be forfeited:-
   a) If a Tenderer withdraws his tender during the specified period of validity of offer.
   b) If the successful Tenderer fails to submission of Work Security Deposit amount as per LOI within stipulated period, the work will be cancelled and forfeited EMD amount and also the same work will be allotted to other qualified bidder on acceptance for the L1 price.

3.2.3 The earnest money of the successful Tenderer shall be released at the time of signing of the work agreement with TSREDCO. At this time, the selected bidder shall have to deposit security money amount 10% on quoted price in the form of DD / BG from any nationalized/scheduled bank in favour of “TSREDCO, Hyderabad”. No interest shall be paid by TSREDCO on the amount of security money deposit.

3.3 WORK COMPLETION PERIOD /VALIDITY OF TENDER
3.3.1 Validity of the Work Agreement will be up to Four months from the date of agreement (or) any extended date depending upon the site conditions.

3.3.2 In exceptional circumstances, TSREDCO may solicit the consent of the tenderers to an extension of the period of validity of offer. The request and the response there of shall be made in writing.

3.4 FORMATS AND SIGNING OF TENDER
3.4.1 The tender must contain the name and places of business of the firm/person/persons participating in the tender and must be signed and sealed by the Tenderer with his usual signature. The name and designation of all persons signing the tender document should be written below every signature. Tender by a partnership firm must be furnished with full name of all partners with a copy of partnership deed.

3.4.2 The original copy of the tender should be typed or written in indelible ink and must be signed with the legal name of the corporation/ company by the President/ Managing Director/ Secretary of the firm or a person duly authorized to bid. In case of authorized person the letter of
authorization by written power-of-attorney should be enclosed with the technical bid of the tender. The person or persons signing the tender shall initial all pages of the tender document.

3.4.3 The tender shall contain no interlink actions, erasers or overwriting except as necessary to correct the errors made by the tenderer in the preparation of tender. The person or persons signing the tender shall also sign at all such corrections.

3.5 PRICE AND CURRENCIES

The tenderer shall have to submit their rates in Indian Rupees only including (GST) all latest applicable taxes & duties of Govt. of Telangana as well as Govt. of India. Moreover, TSREDCO will not be responsible for providing Road permits. It is to be obtained by the selected bidder only and necessary Entry Tax (as admissible) will have to be borne by the selected bidder if any. The rate should be quoted on the prescribed format for Financial Bid (Part-II) attached to this tender document and upload in E-procurement portal. The tenderer shall indicate Location wise price on the appropriate price bid schedule attached to these documents. The rates must be quoted for Cu-Cu selective coating collector for all capacities of systems.
The rates should include hot water and cold water pipe line of approved class and also rate for extra pipeline per meter.
SECTION 4

SUBMISSION OF TENDER

4.1 METHOD OF SUBMISSION

Bids shall be submitted online on www.tender.telangana.gov.in Platform. The participating bidders in the tender should register themselves on e-procurement platform in the website www.tender.telangana.gov.in

a. Bidders can log-in to e-tender platform in secure mode only by signing with the Digital certificates.

b. The bidders, who are desirous of participating in e-tender, shall submit their technical bids, price bids as per the standard formats available at the e-market place.

c. The bidders shall sign on all the statements, documents certificates uploaded by them, owning responsibility for their correctness/authenticity.

d. The bidders should scan and upload the respective documents in Technical Documentation as per the check list.

e. After uploading the documents, the copies of the uploaded technical bid documents in hard copy and original Demand Drafts in respect of Bid Security and Bid document fee are to be submitted by the bidder to the “The Vice Chairman and Managing Director, TSREDCO, Hyderabad, Telangana”, on or before 04:00PM on 15.10.2019.

f. All pages of the Technical Bid shall be organised section-wise, annexed with proof documents, serially numbered and stitched/or spiral bound intact and submitted) Loose pages shall not be accepted.

g. Failure to furnish any of the uploaded documents, certificates, will entitled in rejection of the bid. The Vice Chairman and Managing Director, TS REDCO, Hyderabad shall not hold any risk on account of postal delay. Similarly, if any of the certificates, documents, etc., furnished by the Bidder are found to be false / fabricated / bogus, the bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the Bid Security will be forfeited.

h. The Vice Chairman and Managing Director, TSREDCO, Hyderabad will not hold any risk and responsibility regulating non-visibility of the scanned and uploaded documents.

i. The Documents that are uploaded online on e-market place will only be considered for Bid Evaluation.

j. In case of consortium, prime bidder has to purchase the bid document. The bid will be filled with user ID of prime bidder only.

k. The rate should be quoted on the prescribed format for Financial Bid (Part-II) attached to this tender document and upload in E-procurement portal. The tenderer shall indicate Location wise price on the appropriate price bid schedule attached to these documents. The rates must be quoted for Cu-Cu selective coating collector for all capacities of systems including (GST) all latest applicable taxes & duties of Govt. of Telangana as well as Govt. of India.
V. EVALUATION PROCEDURE:

For short listing of agency the following criteria shall be applied. For this purpose agency shall submit proof documents along with the tender and the agency not confirming to any of these parameters will not qualify for short listing.

a. The Tenders will be opened as per the schedule by The Vice Chairman and Managing Director, TSREDCO, Hyderabad or his authorized representative in the presence of the bidders or their authorized representative who may be present at that time.

b. The Technical Bids consisting of the documents related to Eligibility criteria will be opened first. The tenders will be evaluated so as to ascertain the capability of the bidders to provide the services for the period mentioned above and also to assess whether the bidder satisfies the eligibility criteria.

c. The Financial/Price Bids of only those bidders, who have fulfilled the eligibility criteria above, will be opened online and the Price Bid of the bidders who do not fulfil the eligibility criteria will not be opened and their Tender shall stand rejected.

d. Any claims or disputes raised by the unsuccessful bidders in respect of selection process and non-allotment of award will have no legal validity and will not be enforceable against The Vice Chairman and Managing Director, TS REDCO, Hyderabad. No further correspondence will be entertained regarding the disqualification.

e. The Vice Chairman and Managing Director, TSREDCO, Hyderabad, reserves the right to accept or reject any / or all the tenders without assigning any reasons whatsoever. The Vice Chairman and Managing Director, TS REDCO, Hyderabad also reserves the right to cancel the selection process for award of the contract at any time. The decision of The Vice Chairman and Managing Director, TS REDCO, Hyderabad is final and binding.

VI. FINALISATION OF TENDERS

6.1 Tenders will be finalized by the TSREDCO Tender evaluation committee, for the works along with technical bid evaluation for consideration and in accordance with the conditions stipulated in the tender document and in case of any discrepancy or non-adherence to the conditions, the same shall be communicated which will be binding both on the tender concluding authority and tenderer. In case of any ambiguity the decision taken by the VC & Managing Director, TSREDCO on tenders shall be final.
6.2 The tenders if received with abnormally high percentage or within the permissible ceiling limits) prescribed, but under collusion due to unethical practices adopted during the tendering process shall be rejected.

6.3 The Tenderer who has quoted the Lowest Feasible Price shall have to mandatorily accept the Price or else forfeit their E.M.D. L2, L3 Tenderers who accept to abide by the Lowest Feasible Price shall be considered as Successful Tenderers, and the E.M.D of Other Tenderers who do not wish to accept the discovered price shall be returned.

6.5 The Successful Tenderer has to sign an agreement with in a period of 7 days from the date of receipt of communication of acceptance of his tender. On failure to do so, his tender will be cancelled, duly forfeiting the E.M.D paid by him without issuing any further notice.

6.6. Upon signing of work agreement with TSREDCO the E.M.D of Successful Tenderer’s but who are not successful bidders shall be returned to them within 15 days.

6.7 The Work will be allotted to L1 to L3 bidders with matching the L1 price as follows.
- L1 bidder – 50%
- L2 – 25% and
- L3 – 25%

VII. TERMS OF CONTRACT

7.1 EVALUATION CRITERION
The whole work shall be on Turnkey basis. The tenderer shall be finalized on the basis of total cost of Solar Water Heating system including supply, installation & commissioning as offered by the tenderer in his Financial Bid.

7.2 AWARD OF WORK CONTRACT
7.2.1 The approved supplier shall be signed agreement between TSREDCO and the tenderer. The denial of the lowest bidder to undertake the whole work shall be treated as breach of contract and TSREDCO may forfeit EMD/ Security amount submitted by him.

7.3 RIGHT TO VARY QUANTITIES
The authority reserves the right of awarding the work in a phased manner. TSREDCO may increase or decrease the quantity mentioned in the tender notice at the time of award of contract.

7.4 RIGHT TO ACCEPT/REJECT ANY OR ALL TENDERS.
TSREDCO reserves all the right to reject any or all the tenders, accept any tender in total or in part.
7.5 EXPENSES OF AGREEMENT

The respective suppliers shall pay all the expenses of stamp duties and other requirements for signing the agreement with TSREDCO.

7.6 CONTRACT AGREEMENT

a) The Successful Bidder shall execute an agreement of Work in the INR 200 non-judicial stamp paper of Telangana Jurisdiction only in the name of the Tenderer, within 15 days from the date of Letter of Intimation about qualification by TSREDCO.

b) The Successful Bidder shall not assign or make over the agreement, the benefit or burden thereof to any other person or persons or body corporate for the execution of the contract or any part thereof without the prior written consent of TSREDCO. TSREDCO reserves its right to cancel the work either in part or full, if this condition is violated.

c) In case of the successful bidder fails to execute necessary agreements as prescribed, the stipulated period, then his EMD shall be forfeited and his tender held as non responsive.

7.7 INSTALLATION & COMPLETION SCHEDULE

The entire work involving Supply, Installation and Commissioning of Solar Water Heating Systems of Cumulative 10550LPD shall be completed within 120 days from the date of issue of work order/agreement by the TSREDCO.

7.8 WARRANTY

1. The SWH SYSTEM AS A WHOLE shall carry a GUARANTEE of minimum 5 (Five) years. The SYSTEM COLLECTORS/TUBES shall be warranted for A PERIOD OF 5 YEARS BY THE MANUFACTURER THROUGH THE TENDERER.

2. The above warranty shall take effect from the date on which the system is taken over by the purchaser after commissioning.

3. The successful bidder shall be liable to make good the loss by replacing the defective product during the warranty period for the entire system free of cost.

4. The warranty will cover all the materials and goods involved in the installation and commissioning of SWH systems by the successful Bidder.

7.9 PAYMENT TERMS

1. Copies of invoices after inspection shall also be submitted to TSREDCO along with Inspection Reports, photographs and required all documents. The payment will be released as follows:

   a) 70% Payment will be made against supply, installation, and Commissioning and handing over of the system to the user/user agency after verification of TSREDCO authorities.
b) 30% Shall be released after performance period of 3 months after joint inspection of TSREDCO office officials and basing on the inspection report on functionality of the Solar Hot Water Systems respectively.

c) The Paid Performance SD amount 10% of the work order value will be made after completion of Five years guarantee/warranty.

d) The Payments will be released only after obtaining 100% funds from beneficiary organization.

The following deductions will be made at the time release of payment:

1. TS REDCO Administrative charges @ 5% plus 18% GST as applicable on the Work Order value.
2. If GST or as applicable on Invoice not paid to concerned, the same will be deducted in first payment.
3. Any other applicable taxes / charges as rules in vogue.

7.10 TSREDCO RESERVES THE RIGHT TO;
Negotiate with the Bidders for further reduction of prices.

7.11 BANNING OF BUSINESS DEAL:
The bidder/consortium will be banned from business with TSREDCO if any of the particulars produced by the bidder such as Auditor Certificate, Annual account, GST Clearance Certificate, Test certificate, etc. are found to be incorrect, or if there is breach of any of the conditions in the contract.

7.12 DELIVERY PERIOD
The Solar Water Heating Systems are to be supplied and installed within 120 days from the date of issue of the supply order or as per delivery schedule to be mentioned in the supply order. The time and date stipulated in the tender for the supply of equipment entrusted to the supplier shall be deemed to be essence of the contract failing which the EMD/security deposit will be forfeited and the job would be got done at the cost and risk of the supplier from any other vendor/Agency in addition liquidated damages.

7.13. LIQUIDATED DAMAGES / PENALTY
The delayed installation beyond the stipulated date, 0.5% on the cost of the systems per week will be liable, subject to a maximum of 5% If the system is not installed even after one month after completion of due date the entire work order will be cancelled.

7.14 TEST AND INSPECTION
The firm will inform this office one week in advance when the consignment is ready for inspection. The inspection of the complete system will be carried out at the works of the manufacturer as per BIS/MNRE specifications and guide lines. After successful testing, dispatch clearance will be given.
7.15 GUARANTEE & WARRANTY
The Solar Water Heating Systems will be guaranteed for a period of Five years from the date of installation of the system. In addition to the guarantee of the Solar Water Heating System the supplier shall guarantee satisfactory performance of the system for Five years and shall be responsible for the period for any defects that may develop. Such defects shall be removed within 15 days at his own cost when called upon to do so by TSREDCO. The firm will ensure topping up of glycol at their cost as per actual requirement of the system during warranty period i.e. up to 5 years from the date of installation of system/ handing over of the systems.

7.16 PACKING
The supplier shall make proper packing arrangements of the systems so as to protect them from deterioration and damage during transportation to the site. The supplier will be held responsible for all the damages due to improper packing. The material to be supplied under the contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation shall be included in the bid price.

7.17 SECURITY:
At the time of allocation of projects, the bidder shall submit Performance Guarantee @ 10% on the total project cost with quoted price. This Performance Guarantee amount shall be submitted in the form of DD in favour of “TSREDCO, Hyderabad” OR Bank guarantee from any nationalized/scheduled bank. The bank guarantee should be valid for a period of sixty six months (5.5Years). No interest shall be paid by TSREDCO on the amount of Performance Guarantee deposit.

7.18 DISPUTES:
All the complaints in the consumer protection forums about these supplies will be the liability of the supplier. In case of any dispute relating to the supplies about the quality, manufacturing defects and specifications even after the expiry of the guarantee period, it shall be the sole liability of the Firm at any stage to settle the same in Consumer Protection Legal Forums & other Judicial Forums. The Purchaser reserves the right to issue supply order further, if required after keeping in view the performance of the Firm even at a later stage.

7.19 INSTRUCTION AND MAINTENANCE MANUAL
The supplier shall have to supply one maintenance manual with each Solar Water Heating System to the user.
PART -III

GENERAL TECHNICAL SPECIFICATIONS
SECTION 1
TECHNICAL SPECIFICATIONS

Minimum Technical Requirements laid down by MNRE for ensuring quality aspects of Solar Water Heating Systems being installed in Field

The ETC/Heat pipe based systems from MNRE approved manufacturers/suppliers. The Systems will have the following minimum requirements:

General Requirements
i) 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. (not less than 150kMph)
ii) All the collectors will be south facing inclined at suitable angle to give best performance in winter
iii) There will not be any shadow falling on the collectors from nearby structures or of other collectors in front or back row
iv) Hot water pipe lines of any kind in colder regions will be fully insulated from the point of drawl of water from tank to delivery points. In other regions also care will be taken to avoid heat losses from pipelines.
v) System will be installed nearest to the point of hot water usage to avoid longer pipeline & higher heat losses.
vi) The workmanship & aesthetics of the system will be good and it should be visible to anybody
vii) Air vent pipe, make up water and cold water tanks will be installed as required for smooth functioning of the system
viii) There won't be any leakage observed in the system from tanks/collectors/pipelines
ix) No electric back up will be provided in hot water storage tank at places where electric geysers are already installed. At places where electric geysers are not installed, electric back up could be provided in upper portion of storage tank, if necessary.

Technical Requirements

Evacuated Tube Collectors/ Heat pipes:

Type of tubes:-
3 layer solar selective (Inner layer of copper coating should be visible). Detailed specifications of tubes will be as per the guidelines laid down by MNRE for empanelment of manufacturers of ETC based systems & made available at MNRE website.

No. of tubes/ Absorber Area:-
1.50 sq. m. of absorber area for 100 liter tank capacity system. Absorber area will be calculated as follows:

Area in Meter = Number of tubes X Radius in Meter X Length in Meter.

Accordingly, 14 tubes of Dia: 47 mm & length: 1500 mm and 10 tubes of Dia 58 mm & length : 1800 mm will be required for each 100 lpd system. For higher capacity systems, the no. of tubes calculated as per above could be slightly less. For details, please refer to MNRE Circular no. 25/5/2009-10/ST dated 2nd March, 2010 or as per latest.
**Storage Tanks, Piping, Support structure etc** (To be all indigenous & not imported)

**Inner tank material:** SS 304 or 316 grade material only shall be used.

**Inner tank thickness:** For SS minimum thickness will be 0.5 mm when using argon arc or metal inert gas for welding & 0.8 mm when using other type of welding. No leakage under any kind of negative or positive pressure of water will be ensured.

**Inner tank welding:** TIG / Seam/ pressurized weld (Open arc weld not permitted)

**Storage tank capacity:** Not less than system capacity. In case of ETC based system, volume of tubes & manifold not to be included in tank capacity.

**Thermal insulation of storage tanks:** Minimum 50 mm thick CFC free PUF having density of 28-32 storage tanks kg/ cu.m for domestic systems and 100mm thick Rockwool of 48 kg per cu. m for other systems. For colder regions, it will be 1 ½ times at least. In case of higher density insulations, the thickness may reduce proportionately.

**Thermal insulation of hot water pipes:** Minimum 50 mm thick rock wool or 25 mm thick PUF/Rockwool on GI pipes. Hot water pipes for colder regions, it will be 1 ½ times at least. In case of composite pipes, it will depend on region to region. For higher density insulations, the thickness may reduce proportionately.

**Outer cladding & Frames:** Al/ FRP or GI powder coated. Thickness of sheets will be strong enough to avoid any deformation of the cladding.

**Valves, cold water tank:** Of ISI mark or standard make

**Air vent pipe, heat exchanger, make up tank & instruments Support structure for Collectors, piping, tanks etc :** Of non corrosive material or have corrosion resistant protective coating. They will be strong enough to sustain their pressure during the lifetime of system.

The manufacturer will provide the detailed specifications of each and every part of his system to the beneficiary along with O&M Manual. In case any manufacturer/supplier is found not sticking to above requirements, his name will be removed from TSREDCO list. These requirements will also be put on TSREDCO/MNRE website for the knowledge of beneficiaries and other stakeholders. Salient features of the system will also be highlighted on a plate fixed on front surface of the tank along with name of manufacturer/ dealer & his contact No.

**2. FORCE MAJEURE:**

The Supplier / Manufacturer will not be liable for loss or damage due to delay in manufacture and delivery resulting from any causes beyond the suppliers / contractors reasonable control including but not limited to compliance with regulations, orders or instructions of any federal state or municipal, Government or Agency thereof, Acts of God, Acts of omissions of the purchaser, Acts of civil and Military authority, Fire, Floods, Strikes, Lockouts,, Altercations, Embargoes, War, Riots. Delay in transportation, to obtain necessary labour, manufacturing facility or inability to obtain material due to import or non availability of raw material, any failure or restriction of power supply and delay in releasing payment shall not be considered FORCE MAJEURE circumstances for the purpose of delay
in execution. The onus of proving that the work was delayed due to Force Majeure shall rest with the supplier/ manufacturer.

3. TEST REPORTS:
The Solar Water Heating Systems should have been successfully tested as per BIS/ MNRE Guidelines in the past.

4. TYPE TESTS (As applicable as per MNRE guidelines)
   i. Outdoor no flow exposure test
   ii. Internal and External thermal shock test
   iii. Rain penetration test
   iv. Impact Resistance test
   v. Thermal efficiency test
   vi. Determination of time constant
   vii. Incident angle modifier test

In addition to above, test reports of offered design of collector and its components is also required for following tests.
   a) Transmittance test of cover plate
   b) Resistance to abrasion of collector box
   c) Temperature test of absorber
   d) Static pressure leakage test of riser and header.
   e) Thermal Shock test of Gaskets and grommets

5. Preventive & Routine Maintenance:-
This shall be done at least once in every six months and shall include activities such as cleaning of Solar Water Heating System, checking for any leakage, setting right of heat insulation, topping up of glycol in heat exchanger/ETC based systems and any other activity that may be required for proper functioning of the System as a whole at the cost of the firm. Proper record will be maintained by the firm on this account.

6. Breakdown and corrective maintenance:
Whenever a complaint is lodged by the user, the firm shall attend to the complaint within a reasonable period of time and in any case the breakdown shall be corrected within a period not exceeding ten days from the date of complaint.

DETAILED SPECIFICATIONS COMPONENTS OF SWHS (ETC Type)

1. ASSEMBLY & WORKMANSHIP OF COLLECTOR
Only TSREDCO / MNRE Empanelled firms having valid test reports and empanelment certificates will be considered. All the components of heating systems will be of same makes as tested in test houses. The entire assembly shall be free from surface defects. All sharper edges and corners shall be rounded off. The exposed surfaces shall be properly made corrosion resistant. The air gap between the cover plate bottom and the absorber surface shall be within 20-40 mm. The insulation shall be provided in such a way that no slippage occurs from anywhere. This may be done by providing additional insulation under the header. The cover plate shall be fixed with the collector box through neoprene rubber/ EPDM rubber channels in order to protect the cover plate from damage. Provision shall also be made for the expansion of the glasses. The Solar collector shall be assembled so those replaceable components are accessible for repair or replacement at site in accordance with the manufacturer instructions. The Solar Collector should be tested for static pressure leakage test, outdoor no flow exposure test, thermal performance test in accordance with IS12933 (Part-V)1992.

2. COLLECTOR & HOT WATER TANK SUPPORT FRAME

The structure should be in a position to withstand a wind velocity of 150 Km/Hr shall be made with MS angle of minimum size 35mmX35mmx5mm minimum with vertical support at top and bottom edge of the inclined plane of the collector & hot water tank at a distance of 1.5 M or less. The angle of the collector panels shall be suitably adjusted as per average latitude of Telangana so as to optimum the transfer of heat from the solar radiation. The vertical supports shall be firmly grouted with the roof. The support frame shall be so designed so as to have arrangement for mounting 100/200 ltrs. Cold water tank above the hot water tank. Provision of any device meant to avoid calcification be made and detail be given in the bid.

3. PAINTING OF STANDS

Proper cleaning and degreasing of the surface should be done with the help of three in one solution before painting/powder coating. Two coats of zinc chloromate, red oxide primer shall be applied followed by two coats of enamel paint of suitable colour. The colour is quoted.

4. STORAGE TANK (HOT WATER)

a) Material

The tank shall be made preferably of stainless steel. The storage tank for 100/200 LPD capacity should be made of 20 SWG stainless steel only. Between 300 to 500 LPD capacity the storage tank should be made of stainless steel of thickness 18 SWG. For 1000LPD & above the thickness will be as per MNRE specifications.

b) Insulation

50 mm thick insulation of 48 kg/cu m density having approximate value=0.028 to 0.033 W/mk and R values= 1.67 Sq.m.C./W to withstand a temp of 250 deg C.
5. PIPING

a) Material
Heavy duty ½” to 2” dia (B class) Galvanized Iron pipe (GI) ISI mark IS 1239 (Part-I):1990/ suitable composite pipe shall be used for piping.

b) Insulation
50 MM thick insulation of 48 Kg/cu m density and K value= 0.028 to 0.033 W/MK, R Value= 1.67 Sq.m C/W to withstand a temp of 250 deg C be used.

6. VALVES/NIPPLES/TEES/BENDS:
Gun metal valves ISI marked shall be used. Make of valves be quoted. One valve should be provided with each 100 LPD and 3 valves with 500LPD or more capacity systems. Nipples/tees and bends of ISI marked shall be used.

7. INSTRUMENTATIONS
Following instruments and accessories shall be supplied:

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Gate Valves</th>
<th>SS TAP suitable for hot water</th>
<th>Temperature Gauge</th>
<th>Pipe Line</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cold Water</td>
</tr>
<tr>
<td>100LPD</td>
<td>1</td>
<td>2</td>
<td>One per hot water Tank</td>
<td>10m</td>
</tr>
<tr>
<td>200LPD</td>
<td>1</td>
<td>4</td>
<td></td>
<td>12m</td>
</tr>
<tr>
<td>250LPD</td>
<td>2</td>
<td>4</td>
<td></td>
<td>15m</td>
</tr>
<tr>
<td>500LPD</td>
<td>3</td>
<td>3</td>
<td></td>
<td>20m</td>
</tr>
</tbody>
</table>

8. COLD WATER TANK
HDPE/LDPE material with gunmetal float valve (ISI marked).

9. SYSTEM LAYOUT AND DESIGN
The layout of the systems be submitted for approval in case of systems of more than 100 LPD capacity. The manufacturer should provide with each Solar Water Heating System an instruction manual containing the following information.

a) Installation instructions, including mounting details, handling recommendations and safely precautions. Maintenance instructions, for example cleaning of cover plate, painting (where applicable) etc.

b) Collector recommended output capacities at temperature range 80 ºC for 20ºC-inlet water temperature for a region.
PART -IV

TECHNICAL BID
TECHNICAL BID FORMAT (ENVELOPE-A)

All pages of the Technical Bid shall be organised section-wise, annexed with proof documents, serially numbered and stitched/or spiral bound intact and submitted) Loose pages shall not be accepted.

1. GENERAL PARTICULARS OF TENDERER

<table>
<thead>
<tr>
<th>S. NO</th>
<th>PARTICULARS</th>
<th>TO BE FUNISHED BY THE TENDERER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name of Tenderer/Firm</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Postal Address</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>E-mail address for Communication</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Telephone/ Fax No.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Name, designation, address, contact number and Email of the representative of the tenderer to whom all references shall be made.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Nature of the firm (Individual/Partnership/Consortium/Pvt. Ltd / Public Ltd. Co./ Public Sector, etc.) Attach attested copy of Registration &amp; Partnership deed/ Memorandum of Association</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Amount and particulars of the Earnest Money Deposited.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Annual Turnover for last three years i.e. 2014-2015(Attach balance sheets from CA in this regard)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Name and address of the Indian/foreign collaboration if any.</td>
<td></td>
</tr>
</tbody>
</table>
10. **PAN NO**  
(Copy of certificate to be enclosed)

11. **GST /TIN/ GRN No. CST No.**  
(copies of certificates to be attached)

12. **Has the Tenderer/firm ever been debarred by any institution for undertaking any work?**

13. **Any other information attached by the Tenderer (Details of Annexure / page no. where its enclosed)**

14. **Does Tenderer have any relative Working in TSREDCO?**  
If yes state the Name and designation.

### 1. DETAILS ABOUT THE COMPONENTS TO BE USED

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Name of Manufacturer</th>
<th>Manufacturing Plant address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Solar Collector type</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) ETC Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Storage Tank SS/ MS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. DETAILS OF EXPERIENCE

Please fill in information about Solar Water heating Systems installed in the last three years.

<table>
<thead>
<tr>
<th>Details</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWHS Systems installed in LPD</td>
<td></td>
</tr>
<tr>
<td>Total contract amount (Rs.)</td>
<td></td>
</tr>
</tbody>
</table>

Enclose copies of related work orders along with proof for satisfactory completion of that work.

4. DETAILS ABOUT THE BLACKLISTING, IF ANY

Information on litigation history in which Bidder is involved.

1) Whether black listed/ Debarred/Suspended from execution of work.

2) Other litigations. If any including Court litigations. Arbitrations etc.

<table>
<thead>
<tr>
<th>Department and concerned officer</th>
<th>Other party (ies)</th>
<th>Case of dispute.</th>
<th>Amount involved.</th>
<th>Remarks showing present status.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Signature of the authorised person:
Name of the authorised person:
Designation:
Name and Address of Bidder
Stamp of bidder
DECLARATION

I / WE …………………………………………………………………… have gone through carefully all the Tender conditions and solemnly declare that I / we will abide by any penal action such as disqualification or black listing or determination of contract or any other action deemed fit, taken by, the Department against us, if it is found that the statements, documents, certificates produced by us are false / fabricated.

I / WE hereby declare that, I / WE have not been blacklisted / debarred / Suspended / demoted in any department in Telangana or in any State due to any reasons.

Signature of the Tenderer
DECLARATION BY THE TENDERER

I/We ........................................................................................................................................

(Hereinafter referred to as Tenderer) being desirous of tendering for the work, under this 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 tenderer is fully aware of all the requirements of the tender document and agrees with all provisions of the tender document and accepts all risks, responsibilities and obligations directly or indirectly connected with the performance of the tender.

2. The Tenderer is fully aware of all the relevant information for proper execution of the proposed work, with respect to the proposed place of works/site, its local environment, approach road and connectivity etc. and is well acquainted with actual and other prevailing working conditions, availability of required materials and labour etc. at site.

3. The Tenderer is capable of executing and completing the work as required in the tender and is financially solvent and sound to execute the tendered work. The tenderer is sufficiently experienced and competent to perform the contract to the satisfaction of TSREDCO. The Tenderer gives the assurance to execute the tendered work as per specifications, terms and conditions of the tender on award of work.

4. The Tenderer has no collusion with other tenderers, any employee of TSREDCO or with any other person or firm in the preparation of the tender.

5. The Tenderer has not been influenced by any statement or promises by TSREDCO or any of its employees but only by the tender document.

6. The Tenderer 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.

7. The Tenderer has never been debarred from similar type of work by any Government Undertaking/Department. (An undertaking on Non-Judicial Stamp paper worth of Rs. 100/- in this regard shall be submitted)

8. The Tenderer accepts that the earnest money / security deposit may be absolutely forfeited by TSREDCO if the selected bidder fails to sign the contract or to undertake the work within stipulated time.
9. This offer shall remain valid for acceptance for 3 (Three) months from the proposed date of opening of Tender.

10. All the information and the statements submitted with the tender are true and correct to the best of my knowledge and belief.

(Signature of Tenderer)
PART -V

FINANCIAL BID
THE PRICES FOR SOLAR WATER HEATING SYSTEMS FOR ETC BASED SYSTEM.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Particulars</th>
<th>Rates (In Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100 LPD System @80°C with 10Nos ETC tubes of 58mm dia of X1800mm length</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>200 LPD System @80°C with 20Nos ETC tubes of 58mm dia of X1800mm length</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>250 System @80°C with 25Nos ETC tubes of 58mm dia of X1800mm length</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>500 LPD System @80°C with 34Nos ETC tubes of 58mm dia of X2100mm length</td>
<td></td>
</tr>
</tbody>
</table>

A. PROVISION OF ELECTRICAL BACK UP : FOR SOLAR WATER HEATING SYSTEMS

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Capacity of System</th>
<th>Capacity of Electrical Back up to be provided</th>
<th>Rate quoted including Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>100 LPD</td>
<td>2 KW : Heater Coil -1No</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>200 LPD</td>
<td>2 KW : Heater Coil -1No</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>250 LPD</td>
<td>2 KW : Heater Coil -1No</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>500 LPD</td>
<td>2 KW: Heater Coils – 2 Nos</td>
<td></td>
</tr>
</tbody>
</table>

Electrical cabling:

a) **Up to 500 LPD** : Electrical wiring of 2.5 Sqmm 3 core PVC insulated unarmored cable of Finolex / RR cable / fortunart or equivalent with 20mmPVC piping, laying etc complete from system to mains minimum 30 Rmt to be provided within and excess cable cost will be paid per RMT as per SSR.

PRICES PROPOSED FOR COLD WATER STORAGE TANKS & M.S. STRUCTRUAL STANDS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Capacity of System</th>
<th>Storage Tank Capacity</th>
<th>Amount</th>
<th>M. S. Structural Stand based on Storage Tank capacity</th>
<th>Weight of steel</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Up to 250 LPD</td>
<td>500 Lts</td>
<td></td>
<td>35x35x5mm MS Angles</td>
<td>75 Kg</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>500 LPD</td>
<td>1000 Lts</td>
<td></td>
<td>50x50x5mm M S Angles</td>
<td>130Kg</td>
<td></td>
</tr>
</tbody>
</table>
### RATES FOR PIPELINE DISTRIBUTION SYSTEMS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Supply &amp; Fixing GI Pipes ‘B’ Class ISI marked (without Insulation) incl specials</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>½” φ - ‘B’ Class (15mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>¾” φ - ‘B’ Class (20mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1” φ - ‘B’ Class (25mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 ¼” ø B Class (32mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1½” φ - ‘B’ Class (40mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2” φ - ‘B’ Class (50mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 ½” φ - ‘B’ Class (65mm)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Providing Rock wool insulation 50mm thick with 26 SWG aluminum cladding. Incl. Wire Mesh, for Hot Water Lines</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Up to 1” φ (25mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Above 1” φ (25mm)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Supply &amp; Fixing of Gun Metal Gate Valve as per IS- Class I, Heavy Type</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>½” (15mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>¾” (20mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1” (25mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 ¼” (32mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 ½” (40mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2” (50mm)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Supply &amp; Fixing of 12.7mm Bib cock / Ball Valve 400gms weight, Seiko or equivalent make, Short body</strong></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>Supply &amp; Fixing of 12.7mm Bib cock / Ball Valve 400gms weight, Seiko or equivalent make, Long body</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** In cases of discrepancy between the cost quoted in Words and in figures, the lower of the two will be considered. *(Total cost offered shall be both in figures and words)*
PART-VI

ANNEXURES
BIDDERS UNDERTAKING COVERING
(Letter shall be submitted on Bidder(s) Letter Head)

Ref No : Date:

To

The V.C & Managing Director
Telangana State Renewable Energy Development Corporation Limited (TSREDCO)

Corporate Office: D.No. 6-2-910, Visvesvaraya Bhavan,
The Institution of Engineers Building,
Khairatabad, Hyderabad - 500 004.
Telangana State, India

Dear Sir,

Sub: Supply, Installation and Commissioning of Solar Water Heating systems of Capacity 100LPD to 500LPD for ETC models at Various Locations in Telangana State.- reg.


****

1. We have examined the Tender for Supply, Installation and Commissioning of Solar Water Heating systems of Capacity 100LPD to 500LPD for ETC models as specified in the Tender. We undertake to meet the requirements and services as required and as set out in the Tender document.

2. We attach our Technical Bid and Financial Bid as required by the Tender both of which together constitute our proposal, in full conformity with the said Tender.

3. We have read the provisions of Tender and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our response shall not be given effect to.

4. We undertake, if our Bid is accepted, to adhere to the requirements as specified in the Tender or such modified plan as may subsequently be agreed.

5. We agree to unconditionally accept all the terms and conditions set out in the Tender document and also agree to abide by this Bid response for a period as mentioned in the Tender from the date fixed for bid opening and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this Bid response, together with your written acceptance thereof in your notification of empanelment, shall constitute a binding contract between us and TSREDCO.

6. We affirm that the information contained in the Technical Bid or any part thereof, including its schedules, and other documents, etc., delivered or to be delivered to TSREDCO is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead TSREDCO as to any material fact.
7. We also agree that you reserve the right in absolute sense to reject all or any of the products/service specified in the bid response without assigning any reason whatsoever.

8. It is hereby confirmed that I/We are entitled to act on behalf of our company/organization and empowered to sign this document as well as such other documents, which may be required in this connection.

9. We also declare that our Company/Organisation is not blacklisted by any of the State or Central Government and organisations of the State or Central Government.

Signature of the authorised person:
Name of the authorised person:
Designation:
Name and Address of Bidder
Stamp of bidder

CERTIFICATE AS TO AUTHORISED SIGNATORIES
I, certify that I am (Name) …………………………… (Designation) …………………, and that (Name)…………………………………… who signed the above Bid has been duly authorized to sign the same on behalf of our Organisation.
Date:
Signature:
Seal:
FORMAT FOR BANK GUARANTEE FOR - EARNEST MONEY DEPOSIT

This deed of Guarantee made on...................... day of Month & Year by Name & Address of the bank (hereinafter called the “GUARANTOR”) on the one part, on behalf of M/s Name & address of the Firm (hereinafter called the “Firm”) ) in favour of VC& Managing Director, TSREDCO, Hyderabad on the following terms and conditions.

Whereas the FIRM is submitting its tender for (Name of the work) and this guarantee is being made for the purpose of submission of Earnest money deposit with the tender document.

Know all people by these presents that the GUARANTOR, hereby undertake to indemnify and keep TSREDCO indemnified up to the extent of Rs..............during the validity of this bank guarantee and authorize TSREDCO to recover the same directly from the GUARANTOR. This bank guarantee herein contained shall remain in full force and effect till the expiry of its validity or till any extended period (if extended by the bank on receiving instructions from FIRM.). The liability under the guarantee shall be binding on the GUARANTOR or its successors.

Whereas the GUARANTOR further agrees that their liability under this guarantee shall not be affected by any reason of any change in the offer or its terms and conditions between the FIRM and TSREDCO with or without the consent or knowledge of the GUARANTOR.

Whereas the GUARANTOR further agrees to pay guaranteed amount hereby under or part thereof, on receipt of first written demand whenever placed by TSREDCO during the currency period of this guarantee. The GUARANTOR shall pay TSREDCO immediately without any question, demure, reservation or correspondence.

Whereas the GUARANTOR hereby agrees not to revoke this guarantee bond during its currency period except with the previous consent of TSREDCO in writing.

Notwithstanding anything contained herein

1. Our liability under this bank guarantee shall not exceed Rs. ........................
2. This Bank guarantee shall be valid up to ............

3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only against the written claim or demand on or before ............. Sealed with the common seal of the bank on this ...........day of Month and Year

Witness:

1.

2

(Signature and seal of Bank)
### CHECKLIST TO ACOMPANY THE TENDER

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Submitted in Cover ‘A’</th>
<th>Page No. (see Note below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Crossed demand draft towards Cost of tender document</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Earnest Money Deposit (issued by any Nationalized/Scheduled bank or NSIC/SSI/MSME letter)</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Copy of Contractors valid Registration certificate with TSREDCO/ MNRE Channel Partner Certificate</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Experience Certificate</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>CA Turn Over Certificate</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Copies of GST Registration Certificate.</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Copy of PAN card.</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Availability of local service centers/ technical personnel</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>BIS/MRE approved Test Certificates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Any other documents/certificate as specified in tender conditions</td>
<td>Yes /No</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Information on litigation history in which Bidder is involved.</td>
<td>Yes /No</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. All the statements copies of the certificates, documents etc., enclosed to the Technical bid shall be given page numbers on the right corner of each certificate, which will be indicated in column (4) against each item. The statements furnished shall be in the formats appended to the tender document.

2) The information shall be filled-in by the Tenderer in the check list, as applicable and shall be enclosed to the Technical bid for the purposes of verification as well as evaluation of the tenderer’s Compliance to the qualification criteria as provided in the Tender document.

The bidder shall on all the statements, documents, certificates by him, owning responsibility for their correctness/authenticity.