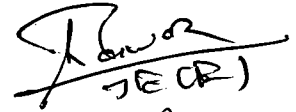


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JECP)

no upload on
website etc.

21/04
08/21

TENDER DOCUMENT
FOR
**Supply, Installation and Commissioning of
Solar Water Heaters (FPC-Type) at Hostel - 5
Building NIBM-Pune**

Tender Notice No: NIBM/ESTATE/SOLARWATER
HEATERS/2020-21

NAME OF FIRM.....

NATIONAL INSTITUTE OF BANK MANAGEMENT
Kondhwa khurd ,PUNE-411048

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PART (A) TECHNICAL BID

PART-I GENERAL DETAILS

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2

Tender Notice No. NIBM/Estate /SolarWaterHeaters/2020-21

Sealed (technical and commercial bid) tenders are invited from all eligible manufacturers and experienced contractors for Supply, Installation & commissioning of Solar Water Heating (SWH) Systems of 750x2 = 1500 litres & 1500x 1 =1500 litres = Total 3000 LPD .

The detailed notice, eligibility criteria and tender document can be seen/downloaded from www.nibmindia.org, any future notice /information related to this tender shall be uploaded on the same website only. The undersigned reserves all the rights to reject any or all the tenders without assigning any reason.

Solar Water Heating System (SWH) from tenderers as per MNRE standard latest system specifications (up to date amended from time to time) and conforming to MNRE s guidelines/minimal technical requirements details enclosed /standards for SWH systems and amendments thereof. The Tenderers shall ensure full compliance with the below mentioned technical specifications for SWH systems, even in case of any further amendment(s) thereof in this regard, during the entire period of the Agreement signed under this Tender.

CAO

FROM :- (Full name and address of the tenderer)

M/s.....
.....
.....
.....

To,

The Director
National Institute of Bank Management
Kondhwa Khurd
PUNE. 411 048

Subject : Offer in response to Tender Notice No. NIBM/Estate/Solar Water Heaters/2020-21

Sir,

We hereby submit our offer in full compliance with terms & conditions of the attached tender. The tender is being submitted in two separate and sealed envelopes marked Part I Technical bid & Part II Commercial bid.

(Signature of Authorized persons with Agency Seal)

PARTICULARS OF TENDER

1	Tender Notice No.	NIBM/Estate /Solar Water Heaters/2020-21
2	Particulars of the work	Supply, Installation & Commissioning of Solar Hot Water system Capacity of 750 x2 =1500 ltrs & 1500 x1 =1500 ltrs with parallel and series connection units with back up electrical heater.at NIBM Executive hostel (Hostel-5) in NIBM Pune including 5 years Warrantee/ Guarantee
3	Quantity	System contains - 750LPD X 2 Nos. tanks with aluminum insulation, 6 Nos. of collector each total 12Nos. & 1500 LPD X 1 Nos. tanks with aluminum insulation, total 12Nos.
4	Period of contract	45 days from date of work order acceptance
5	Cost of tender document (To be paid at time of tender submission)	Rs 500.00
6	Last date/ time of submission	20/1/2021
7	Amount of Earnest Money	Rs. 5000/-
8	Date and Time of opening of tender	21/1/2021
9	Validity of offer for acceptance	Three Months from the date of opening of the Technical bid
10	Place of opening of tender	Purchase section , Pune
11	Completion Period	45 days

Note:-

1. The tender document can be obtained on any working day during office hours from the Purchase department, NIBM, Pune, till 20/1/2021.
2. It can be downloaded also from <http://www.nibmindia.org>
3. Tender document issued by NIBM or downloaded from the above website will only be considered valid.

GENERAL PARTICULARS OF TENDERER

Sr	Particulars	Details
1	Name of Tenderer/Firm	
2	Postal Address	
3	E-mail address for communication	
4	Telephone Nos. (Landline & Mobile)	
5	Name, designation & contact number of the representative of the tenderer to whom all references shall be made	
6	Nature of the firm (Individual / Partnership / Consortium/ Pvt. Ltd /Public Ltd. Co. /Public Sector etc.) Attach attested copy of Registration & Partnership deed / Memorandum of Association	
7	Amount and particulars of the earnest money deposited.	
8	Annual Turnover for last three years (Attach balance sheets from CA in this regard)	
9	GST Registration No. (Copies GST other taxes Registration Certificates to be enclosed)	
10	Has the tenderer/firm ever been debarred by any institution for undertaking any work?	
12	Any other information attached by the tenderer (Details and Annexure/ page no. where its enclosed)	
13	Does tenderer have any relative working in NIBM? If yes, state the name and designation	

Tenderers are requested to give their full particulars, legal and financial status.

(Signature of tenderer with Seal)

DECLARATION BY THE TENDERER

I, / We _____ (Hereinafter

referred to as Tenderer) being desirous of tendering for the work, under this tender 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 NIBM. 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 NIBM 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 NIBM 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 Stamp paper in this regard shall be submitted.)
8. The tenderer accepts that the earnest money may be absolutely forfeited by NIBM if the tenderer 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 the Technical Bid.
10. All the information and the statements submitted with the tender are true.

(Signature of Tenderer) SEAL

PART-II
INSTRUCTIONS TO TENDERERS

SECTION 1

INTRODUCTION

The tenderer shall provide sufficient documentary evidences to satisfy the following conditions that the tenderer:

- (a) Is an indigenous manufacturer of the Solar Systems or experienced contractor in the field of Solar Water heater system?
- (b) The tenderer fulfills the terms and conditions of eligibility as an indigenous manufacturer/contractor/channel partner of Solar Systems in accordance with the directions of Ministry of New and Renewable Energy Government of India.
- (c) Has established quality assurance systems and organization designed to achieve high level of equipment reliability in manufacturing of the Solar Water Heater Systems.
- (d) Has experience of manufacturing, supply and maintenance/after sale services in the field of solar water heater systems of more than 100000 LPD cumulative capacities in the last five years. The details must be submitted in the Performa given in Technical- Bid section of tender document. The tenderer should have executed atleast a single work order for the installation, testing and commissioning of solar water heater systems of similar capacity/size.
- (e) Has adequate field service setup to provide good after sale services including necessary repair and maintenance.
- (f) Has provided good after sale services and support for the works done by him during past years.
- (g) Has Valid Test Certificate of the solar water heater systems as specified and required in the Technical- Bid of this tender document.
- (h) Except above all other requirements are to be as per norms of MNRE

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

- (i) No advance payment will be given by NIBM.

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 contents at page no-2.

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. Any deviations from these will not be permitted during the execution of contract, without specific written permission of Engineer In-charge.

2.3 CLEARIFICATION 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 in writing by letter or email within one week (7 days) from the date of publication/up-loading of tender at Website. 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, NIBM 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 3 days before the proposed date of submission of the tender. NIBM 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 3 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 NIBM 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.

2.4.4 All the notices related to this tender which are required to be publicized shall be uploaded on <http://www.nibmindia.org>

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. Any printed literature furnished by the tenderer may be in another language so long as it is accompanied by an English translation of its pertinent passages. Unit measurements shall be metric in accordance with International System. All correspondence between the tenderer and NIBM shall also be in English.

3.2 EARNEST MONEY DEPOSIT

3.2.1 The tenderer shall furnish earnest money as mentioned in the Particulars of Tender in the form of DD/ Bank guarantee from any nationalized bank pledged in favour of Director, NIBM Pune, as a part of his tender. The EMD should be valid for a period of 120 days beyond the validity of offer. Tenders without EMD shall be rejected by NIBM as being non-responsive. No interest shall be paid by NIBM on the amount of earnest money deposit.

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 sign the contract agreement within stipulated period.

3.2.3 The earnest money of the successful lowest tenderer shall be released at the time of signing of the agreement with NIBM. At this time, the tenderer shall have to deposit security money amounting to 10% of the contract value in the form of DD/ Bank

guarantee from any nationalized bank pledged in favour of Director, NIBM, Pune . The bank Guarantee should be valid for a period of 12 months from the date of purchase order. No interest shall be paid by NIBM on the amount of security money deposit.

3.2.4 The earnest money of all other unsuccessful tenderers shall be released after receiving confirmation of acceptance from successful bidder.

3.3 PERIOD OF VALIDITY OF TENDER

3.3.1 Validity of the offer should be Three (03) months from the proposed date of opening of the Technical bid. Tenders without this validity will be rejected.

3.3.2 In exceptional circumstances, 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.

FORMATS AND SIGNING OF TENDER

3.3.3 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 the signature. Tender by a partnership firm must be furnished with full name of all partners with a copy of partnership deed.

3.3.4 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.

3.3.5 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.

3.4 **PRICE AND CURRENCIES**

The tenderer shall submit his rates in Indian Rupees only, on the format for Financial Bid attached to this tender document. The rates should include all applicable taxes, duties & surcharges. Once quoted price will not change during contract period.

SECTION 4
SUBMISSION OF TENDER

4.1 SEALING AND MARKING OF TENDER

4.1.1 The tender must be complete in all technical and commercial respect and should contain requisite certificates, drawings, informative literature etc. as required in the tender document.

4.1.2 First sealed envelope (Part-I) should contain cost of the tender document (In case it's downloaded from website), requisite earnest money, brochures, literature and other documents regarding technical specifications. It should be subscribed with TENDER NO. NIBM/Estate/solar water heaters/2020-21 & 'Earnest Money and Technical Bid'.

4.1.3 The complete tender document in original (excluding financial bid) issued by NIBM or downloaded from the website should be submitted by the tenderer in the first envelope (Part- I Technical) after furnishing all the required information on relevant pages. Each page of the tender document should be signed & stamped. Tenders with any type of change or modification in any of the terms/ conditions of this document shall be rejected. If necessary, additional papers may be attached by the tenderer to furnish/ submit the required information.

4.1.4 Second sealed envelope (Part-II) should contain financial bid only. It should be subscribed with TENDER NO. NIBM/Estate/Solar Water Heaters /2020-21 and "Financial bid". The tenderer should submit his duly signed and stamped financial bid on the financial bid format attached with this tender document, after writing the price only.

4.1.5 Any term/condition proposed by the tenderer in his technical bid which is not in accordance with the terms and conditions of the tender document or any financial conditions, payment terms, rebates etc. mentioned in financial bid shall be considered as a conditional tender and will make the tender invalid.

4.1.6 Both the above sealed envelopes i.e. Part-I and Part-II will be sealed in another one envelope, subscribed with TENDER NO. NIBM/Estate/Solar Water Heaters/2020-21 and Name of Work "Supply, Installation and Commissioning of Solar Water Heaters (FPC-Type) at Hostel - 5 Building NIBM-Pune

This envelope shall be addressed to the Director, NIBM, Pune.

4.2 DEADLINE FOR SUBMISSION OF TENDER

4.2.1 Tender must be received by the date & time of submission as specified in tender document.

4.2.2 Any tender received after the specified date & time of submission will be rejected and returned unopened to the tenderer.

SECTION 5

TENDER OPENING AND EVALUATION

5.1 OPENING OF TENDER

The procedure of opening of the tender shall be as under:

5.2 First envelop (Part-I) bearing TENDER NO. NIBM/Estate/Solar Water Heaters/2020-21 and subscribed 'Earnest Money and technical bid and shall be opened by NIBM's representatives at the time and date mentioned in the Particulars of Tender, in the presence of tenderers who choose to be present. The financial and technical suitability of offers will be examined by NIBM in detail. If required, clarifications regarding the suitability of the offers will be obtained.

5.2.1 Second envelope (Part-II) bearing TENDER NO. NIBM/Estate/Solar Water Heaters /2020-21 and subscribed "Financial bid" of only those tenderers shall be opened whose technical bid is found responsive, suitable and in accordance with the various requirements of the tender.

5.2.2 A suitable date for the opening of financial bid shall be announced or shall be communicated to tenderers by letter / email (Either Mode). To avoid postponement of opening of financial bid, it is in the interest of the tenderers to send their authorized representatives who are well conversant with the tender and competent enough to take decisions on technical and financial matters at the time of opening of bids.

5.3 CLARIFICATIONS REGARDING THE SUBMITTED TENDERS

5.3.1 During the process of evaluation of the tender, may at its discretion ask the tenderer for a clarification of his tender. The request for clarification and the response shall be in writing.

5.3.2 Any query regarding any clarification required by on the information submitted by the tenderer, must be replied by the tenderer within the following time schedule.

- Email query should be replied by Email within 3 days.
- Query by letter must be replied by letter within 7 days of issue of the letter.

SECTION 6

AWARD OF CONTRACT

6.1 EVALUATION CRITERION

The whole work shall be on turnkey basis. The tender shall be finalized on the basis of lowest total cost of Solar water heater system including guarantee and AMC as offered by tenderer in his financial bid. NIBM reserves all rights to disqualify any tender without giving clarification, in case the financial bid falls below industrial MNRE standard.

6.2 NOTIFICATION OF AWARD

Prior to the expiry of validity period of offer, NIBM will notify the successful tenderer by registered Letter/Email that his tender has been accepted.

6.3 AWARD OF WORK CONTRACT

6.3.1 Before placement of supply\work orders, an agreement shall be signed between NIBM and the successful tenderer\bidder. Complete work shall ordinarily be awarded to the lowest tenderer only. The denial of the lowest bidder to undertake the whole work shall be treated as breach of contract and NIBM may forfeit EMD/ Security amount submitted by him.

6.3.2

6.4 RIGHT TO VARY QUANTITIES

NIBM may increase or decrease the quantity mentioned in the tender notice at the time of award of contract and to split the work among various tenderers without any change in price or other terms and conditions & without assigning any reason thereof.

6.5 RIGHT TO ACCEPT/REJECT ANY OR ALL TENDERS

NIBM reserves all the rights to reject any or all the tenders, accept any tender in total or in part.

PART-3
GENERAL TERMS AND CONDITIONS
OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

1. DEFINITIONS

In the deed of contract unless the context otherwise requires:-

1.1 NIBM shall mean The Director or his representative of "National Institute of Bank Management Pune" India with its Head Office at NIBM Post Office, Kondhwa Khurd, at Pune and shall also include its successors in interest and assignees. The Contractor shall mean the Firm/ Person (whose tender has been accepted by NIBM) and shall include his legal representatives, successor in interest and assignees.

1.2 The contract shall be for Supply, Installation & Commissioning of Solar Water Heater of 750 x2 =1500 LPD & 1500 x1 =1500LPD Hostel- 5 building roof top of including 5 Years Warrantee/ Guarantee & AMC and shall be valid till the completion of all related works

1.3 The contractor shall be deemed to have carefully examined all the papers, drawings etc. attached to the contract deed. If he shall have any doubt as the meaning of any portion or any condition(s) /specifications etc.

2. COMPLETION PERIOD

2.1 The completion period of the entire work shall be **45 days** after issue of work order. The work shall have to be completed within time and shall be binding on the contractor. In case of any urgency, the contractor may be asked to complete the work even earlier and contractor will be bound to fulfill the requirements.

2.2 In case the contractor fails to execute the said work or related obligations within stipulated time, NIBM will be at liberty to get the work executed from the open market at the risk and cost of the contractor, without calling any tender and without any notice to the contractor. Any additional cost incurred by NIBM during such execution of the work shall be recovered from the contractor.

2.3 If the cost of executing the work as aforesaid shall exceed the balance payments due to the contractor and the contractor fails to make good the Additional cost, NIBM may recover it from the contractor's pending claims against any work in NIBM or in any other lawful manner. All risks & responsibilities related to the execution of the said work and fulfillment of related obligations directly or indirectly connected with the performance of the contract shall be the sole responsibility of contractor.

2.4 The calculation of aforesaid additional cost will be finalized by the NIBM at its sole discretion. The contractor shall have no right to challenge the mode or amount relating to calculation at any forum. For completion of the work through any other agency, in case some changes are required in terms and conditions of the contract; the contractor shall not have any right to challenge the decision of NIBM.

3. LIQUIDATED DAMAGES

If the contractor fails to perform the work within the time periods specified in the work orders or within the extended time period if any, NIBM shall without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damage, a sum equivalent to 1% of the price of the un-performed work/ services for each week of delay until actual completion of work, up to a maximum deduction of 10%. Once the maximum is reached, NIBM may consider termination of the contract.

4. FORCE MAJEURE

4.1 Notwithstanding the provisions of clauses contained in this deed; the contractor shall not be liable for forfeiture of its performance security, liquidated damages, termination for default, if he is unable to fulfill his obligation under this deed due to force majeure circumstances.

4.2 For purpose of this clause, "Force majeure" means an event beyond the control of the contractor and not involving the contractor's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions and fright embargoes etc. Whether a "Force majeure" situation exists or not, shall be decided by the Director of NIBM, Pune & his decision shall be final and binding on the contractor and all other concerned.

4.3 If a force majeure situation arises, the contractor shall notify NIBM in writing promptly (at the most within 5 days from the date such situation arises). After examining the cases NIBM shall decide and grant suitable addition time for the completion of the work.

4.4 For other justified cases also, not covered under force majeure conditions, NIBM may consider the request of contractor and additional time for completion of work may be granted.

5. QUALITY,WARRANTEE/ GUARANTEE AND ANNUAL MAINTENANCE

5.1 The contractor shall warranty the Solar Water heater as per applicable standards of quality. Anything to be furnished shall be new, free from all defects and faults in material and workmanship. The manufacture shall be in accordance with the specified technical parameters and should be of the highest grade and consistent with established and generally accepted standards for material. It shall be in full conformity with the drawing or samples if any and shall operate properly if operable.

5.2 The contractor shall rectify defects developed in the Systems within Warrantee/Guarantee/AMC period promptly. In case the contractor does not rectify the defects within 2 working days of the receipt of complaint, NIBM may restore the System in working condition on contractor's expenses.

5.3 Frequent and unjustified delays in rectifying defects may lead to cancellation of the contract, recovery of losses and imposing of additional penalty. In such circumstance NIBM shall have the full liberty to recover the losses/penalty from the contractor pending claims, security deposit or in other law full manner. The amount of losses/penalty shall be decided by Director, NIBM, Pune and will be binding on the contractor.

5.4 The performance of the system installed & commissioned shall be warranted by the bidders for a minimum period of five years from the date of design supply/commissioning of systems at site. This warranty shall be for a minimum period of five year from the date of commissioning for the complete system.

5.5 The 5 year warranty period from the date of commissioning, for which no service/ maintenance charges will be separately paid to the contractor. Warranty Card for the same period must be issued by the Manufacturer/supplier to the beneficiary.

5.6 Preventive maintenance during warranty period, periodical checking of performance of system and servicing and replacement of any spares. All test to check the performance (Capacity as well as temperature of hot water) of the system shall be carried out.

5.7 If the bidder fails to ensure 100% working status during warranty period, penalty will be imposed @ 1% of the cost of the system per week or part thereof for the first instance subject to a maximum limit of 10% of the same value and later on the maintenance shall be done at supplier s risk & cost and security deposit & EMD will also be forfeited.

6. STANDARDS

The goods supplied and works executed under this contract shall confirm to the standards mentioned in the technical specification and where no applicable standard is mentioned, the latest version of Indian Standard Institution or Bureau of Indian Specification shall be applicable.

7. INSPECTION AND TESTS

7.1 NIBM or its duly authorized representatives shall have the right to inspect and /or to test the goods to confirm their quality according to the contract and shall have access to the contractor's works premises and the power to inspect and examine the materials and workmanship of the solar water heater at all reasonable times during their manufacture.

7.2 The contractor shall inform NIBM through a written notice regarding any material being ready for testing at least 7 days in advance. The conditions of contract and/or the technical specifications shall specify what inspections and tests shall be conducted by NIBM. All the arrangements of necessary equipments and expenses for such tests shall be on the contractor's account excluding the expenses of the inspector.

NIBM's officers/engineer unless the witnessing of the tests is virtually waived off, will inspect and attend such test within 7 days from the date on which the equipment's are notified as being ready for test /inspection.

7.3 NIBM shall within 7 days, give written notice to the contractor, about any objection regarding the quality of the system. The contractor shall either make the necessary modifications to remove the cause of such objection or shall clarify the objections in writing if modifications are not necessary to comply with the contract.

7.4 After satisfactory testing of the systems during inspection, NIBM's Officer/ Engineer shall issue of dispatch clearance for the supply of material at site.

7.5 The inspection by NIBM and issue of dispatch instruction there on shall in no way limit the liabilities and responsibilities of the contractor in respect of the agreed and specified quality. Nothing in clause 8 shall in any way relieve the contractor from any Warrantee/ Guarantee or other obligations under this contract.

8. SPARE PARTS

The contractor shall make arrangement to maintain a sufficient stock of essential spares and consumable spare parts to ensure proper maintenance of the system promptly.

9. PACKING FORWARDING

9.1 Contractors, wherever applicable shall properly pack and crate all materials in such a manner as to protect them from deterioration and damages during transportation. The contractor shall be responsible for all damage due to improper packing.

9.2 The contractor shall inform the Estate Officer (ESO) / Engineer of NIBM, P u n e regarding the probable date of each shipment of materials from his works.

10. TRANSPORTATION

The contractor is required to deliver the goods at NIBM Pune as defined in the scope of work.

11. INSURANCE

11.1 The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture or acquisition; transportation and the expenses shall be borne by the contractor.

11.2 The contractor shall arrange security & storage of their materials to avoid any theft or losses during execution of work. NIBM will, in no case, shall be responsible for providing any security/storage for the materials & equipments lying at site during execution of work. Under the contract contractor shall be responsible for any loss or damage until the systems/ supplies are taken over.

12. LIABILITY FOR ACCIDENTS AND DAMAGES

During the Warrantee/ Guarantee period, the contractor shall assume all responsibilities for direct damages covering all type of accident, injury or property damage caused by manufacturing defects or faulty installation on the systems.

13. DUTIES AND TAXES

The rates/ prices mentioned in the price-schedule include all applicable taxes, duties & surcharges. No additional payments shall be made by NIBM on this account.

14. RIGHT TO VARY QUANTITIES

NIBM reserves all the rights to increase or decrease the quantity of goods mentioned in the contract, at the time of placement of orders without any change in price or other terms and conditions.

15. LOCAL CONDITIONS

15.1 It will be imperative on contractor to have full information of all local conditions and factors which may have any effect on the execution of the works. The contractor shall be deemed to have collected all the relevant information regarding the proposed place of works/ site, its local environment, approach road and connectivity etc. and be well acquainted with actual working and other prevailing conditions.

15.2 If required, the contractor should pre-visit the site before starting the work. NIBM shall not entertain any request of contractor for clarifications related to such local conditions and shall bear no responsibility in this regard.

16. TOOLS & TACKLES

The contractor shall provide all necessary tools & tackles for proper execution of work and operation/ maintenance of systems after installation. NIBM shall in no way, responsible for supply of any tools & tackles.

17. TERMINATION FOR DEFAULT

NIBM without prejudice to any other remedy for breach of contract, by written notice of default sent to the contractor, may terminate the contract in whole or in part:

17.1 If the contractor fails to deliver the Services within the allocated time period(s).

17.2 If the contractor fails to perform any other obligation(s) under the contract. However in the event of termination of the contract in part, the contractor shall continue performance of the contract to the extent not terminated.

18. TERMINATION FOR INSOLVENCY

NIBM may at any time terminate the contract by giving written notice to the contractor without compensation to the contractor if he becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to NIBM

19. TERMINATION FOR CONVENIENCE

NIBM may vide a written notice sent to the supplier, terminate the contract, in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for the purchaser s convenience in the interest of NIBM.

20. COMPLETION OF WORK

On completion of the work, the contractor shall submit 3 sets of "As Executed Report" to NIBM which will include photographs, drawings and as executed reports of various systems containing details of installation form the point of view of future maintenance of the installed systems. This report must also contain all Technical Details, Detailed Circuit Diagram of the components of all the system.

21. OTHERS CONDITIONS

21.1 The contractor shall not transfer, assign or sublet the work under this contract or any substantial part thereof to any other party without the prior consent of NIBM in writing.

21.2 NIBM may at any time either stop the work all together or reduce or cut it down by sending notice in writing to the contractor. If the work is stopped all together, the contractor will only be paid for work done and expenses distinctly incurred by him as on preparation or the execution of the work up to the date on which such notice is received by him. The decision of NIBM regarding assessment of such expenses shall be final and binding on the contractor. If the work is cut down, the contractor will not be paid any compensation what to ever for the loss of profit which he might have made if he had been allowed to complete all the work awarded to him.

21.3 Fulfillment of various requirements, not particularly mentioned in the specifications or drawings but necessary for satisfactory and proper completion of the work shall be the contractor's responsibility within the prices offered by him. But additional works beyond the scope and essence of this contract shall be carried out by the contractor as extra items. For such works the rates shall be decided by NIBM and shall be binding on the contractor.

21.4 Work carried out without NIBM's approval shall not be accepted and NIBM shall have rights to get it removed and to recover the cost so incurred from the contractor.

21.5 The contractor shall not display the photographs of the work and not take advantage through publicity of the work without written permission of NIBM.

21.6 The contractor shall not make any other use of any of the documents or information of this contract, except for the purposes of performing the contract.

21.7 NIBM will not be bound by any Power of Attorney granted/ issued by the contractor or by any change in the composition of the firm made during or subsequent to the execution of the contract. However recognition to such Power of Attorney and change (if any) may be given by NIBM after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.

22. APPLICABLE LAW

The contract shall only be interpreted under Indian laws. The station of NIBM Headquarter Pune shall have exclusive jurisdiction in all matters arising under this contract.

23. RESOLUTION OF DISPUTES/ARBITRATION

23.1 The purchaser and the supplier shall make every effort to resolve any disagreement or dispute arising between them under or in connection with the contract, amicably by direct informal negotiation.

23.2 If after thirty (30) days from the commencement of such informal negotiations, the purchasers and the supplier are unable to resolve a contract dispute amicably; the matter may be referred in writing by either party to the sole arbitration of the Director of NIBM Pune or to a person nominated by him.

23.3 Subject to aforesaid, the arbitration and conciliation Act 1996 and rules made thereafter or any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings. Under this cause, the Award given by the Arbitrator shall be binding on all the parties. The contractor shall not have right to challenge the Award.

23.4 Work under the contract shall if reasonably possible, continue during the arbitration proceedings and dues if any, payable by NIBM to the contractor with respect to the work not in dispute shall not ordinarily be withheld on account of such proceedings unless it becomes necessary to withhold the same.

23.5 The proceedings, if any, in relation to the arbitration referred to above, shall be held by the arbitrator aforesaid at Pune and courts at Pune shall have jurisdiction to entertain and decide the matter involved.

23.6 In case during the Arbitration proceedings the appointed Arbitrator becomes unable, due to any reason whatsoever, to continue with the proceedings or making of Award; it will be prerogative of NIBM to nominate any other person as sole Arbitrator instead thereof. The contractor shall not raise any objection to such appointment having been made by NIBM.

23.7 The High court of Pune or Courts subordinate at Pune to it as the case may be, shall alone have jurisdictions to the exclusion of all other courts.

24. NOTICES

24.1 Any notice to be given by one party to the other, pursuant to the contract shall be sent in writing. A notice shall be effective when delivered or from the effective date mentioned in the notice, whichever is later.

24.2 Notices, statements and other communications sent by NIBM to the contractor at his specified addresses through registered post/ email shall be deemed to be delivered to the contractor.

25. APPLICATION

These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.

26. PAYMENT TERMS

26.1 50% against delivery of material at site against invoice\Delivery challan

26.2 50% of contract value against satisfactory installation and commissioning of system

Note*

a) Balance 10% of the contract value shall be paid after completion of guarantee period (Five years Warrantee/Guarantee). This amount shall be released on submission of bank guarantee valid for 63 months from the date of erection and commissioning of systems atsite.

a.1 No price escalation due to any reason (including any change in the applicable taxes, duties, surcharge etc.) shall be considered by NIBM during the validity/ extended validity of the contract agreement

a.2 All the bank guarantees should be made from nationalized bank.

PART - 4

TECHNICAL SPECIFICATIONS & TERMS AND CONDITIONS FOR SOLAR WATER HEATERS (FPC)

TERMS AND CONDITIONS

1. The manufacturer shall supply all technical literature and drawing considered necessary for the installation, operation and maintenance of the equipment and its fittings. These shall essentially include:-
 - a) Drawing showing over all dimensions and all other details including sectional view of the equipments.
 - b) Manual of instructions for the operation, maintenance and repairs/equipment and special fittings, if any.
 - c) Checking methods and schedule for cleaning the system.
 - d) Any other relevant technical data which would be of assistance for efficient operation and maintenance of the system including energy savings etc.

2. The supplier shall train purchaser's personnel for the operation and maintenance of the equipment for a particular period, mutually agreed between the supplier and the customer.

3. The suppliers will have to undertake repair of the system installed by them, in case of any defect arising out of any point of time. Supplier will attend the minor complaints within 48 hours of receiving the complaint otherwise penalty to be recovered per day as decided by NIBM.

4. The supplier shall guarantee the performance of the system for the rated output of 60 degree C in terms of quantity of hot water and the temperature in peak winter for which the system is designed. If it is not achieved, the necessary additions/modifications including installation of extra collectors shall be done by the supplier without charging any extra price. However, the purchaser reserves the right to have this job completed for achieving the rated output by other manufacturers/after serving 15days notice to the original manufacturers/contracts at his cost & risk.

5. All the elements of the system which fail due to manufacturing defect within the period of guarantee shall be replaced by the tenderer free of cost.

6. An amount of 10% of the total cost of the system will have to be deposited by contractor, as security which will be reimbursable after 5 years i.e. completion of warranty period.

Note: - These terms & conditions will be in addition to already exiting terms & conditions of the concerned Department.

TECHNICAL SPECIFICATINS
FOR SOLAR WATER HEATER (FPC)

<p>1. Solar flat plate collector components</p>	<p>Solar flat plate collector cover plate made of toughened glass. Sheet for absorber made of copper. Absorber made of copper sheet.</p>
<p>2. Solar flat plate collector specifications</p>	<p>1. Solar flat plate collector shall conform to IS 12933 (part1) with amendment no.1 ,2,3 & 5</p> <p>2. and IS : 12933 (part 2)/2003 and various components shall be as under:-</p> <p>a) Cover plate: cover plate shall be toughened glass and thickness of 4.0 mm (min) conforming to section -1 of IS: 12933(pt-2)/2003 the solar transmittances of the cover plate shall be minimum 82 percent at near normal incidence</p> <p>b) Collector box: collector box shall be made of aluminum Sections only type grade, size, workmanship and finish of the material used shall be as per section-2 of IS: 12933 (pt-2)/2003: the minimum thickness of aluminum shall be as under:</p> <ol style="list-style-type: none"> 1. Channel section for sides 1.6 mm 2. Sheet for bottom 0.7 mm 3. Support for glass retaining 1.2 mm 4. Sheet for entire body 1.0 mm
<p>a) Absorber</p>	<p>Absorber Shall Consist of riser, Header and Sheet for absorber. The Diameter of header shall be 25.4 + /-0.5mm and thickness 0.71mm. The Diameter of riser shall be 12.7 + /-0.5 mm and thickness 0.56mm and made of copper only. The distance between the risers from center to center shall be 120mm. type grade, size , workmanship and finish of thematerial used shall be as per section- 3 of IS : 12933 (pt -2)/2003.</p> <ol style="list-style-type: none"> 1. Riser and header assembly designed for working pressure up 24.5 k pa (2.5 kg/ cm square) shall be tested for leakage at a minimum hydraulic pressure of 490 k pa (5 kg/cm square). <p>(a) Sheet for absorber: sheet for absorber shall be made of copper only. Type Grade, size, workmanship and finis of the material used shall be per Section -3 of IS: 12933 (pt -2) /2003. A sample piece of the absorber for Having minimum area of 400 square cm. shall be heated in an oven at Temperature of 175 degree c for 2 hours. After heating, the sample shall be taken out from the oven and cooled at room temperature. The Cooled sample shall be inspected visually for damages, if any.</p>

	There Shall not be any appearance of blistering / rupture / peeling off of the Coated /painted surface and of weakening of the bonding between.
b) Absorber sheet and risers/ headers	<p>(a) Collector box insulation shall be provided at back and sides. Thermal resistance (R) of insulation material shall be minimum 0.96 m square degree c/w for back insulation and minimum 0.48 m square degree c/w for side insulation. This shall be derived after determining thermal conductivity (k) value at 100 degree c mean temperature in accordance with IS: 3346. Collector box insulation shall conform to sec. 4 of IS 12933 (pt - 2) / 2003.</p> <p>(b) Gaskets and grommets: gaskets and grommets shall conform to Sec. 5 of IS 12933 (pt-2)/ 2003.</p>
3. ASSEMBLY OF COLLECTORS	<p>The load of the absorber should not be on the insulation. It should be taken by the collector box. The air gap between the glazing and the absorber should be 25mm (+5mm). Insulation should not be allowed to slide. Glazing shall be fixed on the collector box by using EPDM/Neoprene/Synthetic rubber channels. 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 aluminum angle retainer of dimensions 25 mmx25mmx1.5mm fixed on the top of the box it shall be ensured that the screws are not touching the glass edge. Top surface along the edge between the glass and the aluminum angle shall be caulked with suitable sealants such as zinc oxide based/rubber based/silicon rubber based or polysulphide rubber sealants.</p>

	<p>Length-1500+5mm. & Inner Diameter: 33.4mm. b) Thickness of tube at least 1.60 mm.</p> <p>7. Tube assembling frame a) Mild steel section with PP coating.</p> <p>8. Tube assembling frame size a) Length-2.10mtrs. Width-3.20mtrs, Height-1.50mtrs.</p> <p>9. Cold water tank a) 2.4 mtrs. From the terrace level.</p> <p>10. Backup Provide a) Electrical heaters: - 03 KW/6KW with thermostat</p> <p>11. Tube coating a) Copper coated tubes with selective absorptive coating Graded AI-N.</p>																		
4. GASKET FOR FLANGES	3 mm thick gasket of Neoprene/synthetic rubber gasket shall be used for sealing the joints between flanges.																		
5. COLLECTOR SUPPORT FRAME	The structure should be in a position of withstand a wind velocity of 100 kms/hr. shall be made with angle iron of 35mmx35mmx4mm; 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.																		
6. PAINTING OF STANDS	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 as per NIT.																		
7. STORAGE TANK(HOT WATER	a) Material Stainless Steel (SS 316/ IS 1730 grade)																		
	<p>b) Thickness</p> <table border="0"> <tr> <td>20 gauge</td> <td>(0.91mm)for 100 lpd</td> </tr> <tr> <td>20 gauge</td> <td>(0.91mm)for 200 lpd</td> </tr> <tr> <td>20 gauge</td> <td>(0.91mm)for 500 lpd</td> </tr> <tr> <td>18 gauge</td> <td>(1.2mm) for 1000 lpd</td> </tr> <tr> <td>18 gauge</td> <td>(1.2mm) for 1500 lpd</td> </tr> <tr> <td>18 gauge</td> <td>(1.6mm) for 2000 lpd</td> </tr> <tr> <td>16 gauge</td> <td>(1.6mm) for 3000 lpd</td> </tr> <tr> <td>16 gauge</td> <td>(2.0mm) for 4000 lpd</td> </tr> <tr> <td>16 gauge</td> <td>(2.0mm) for 5000 lpd</td> </tr> </table>	20 gauge	(0.91mm)for 100 lpd	20 gauge	(0.91mm)for 200 lpd	20 gauge	(0.91mm)for 500 lpd	18 gauge	(1.2mm) for 1000 lpd	18 gauge	(1.2mm) for 1500 lpd	18 gauge	(1.6mm) for 2000 lpd	16 gauge	(1.6mm) for 3000 lpd	16 gauge	(2.0mm) for 4000 lpd	16 gauge	(2.0mm) for 5000 lpd
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	<p>c) Insulation and installation</p> <p>All sockets and internal fittings of the tanks should be 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.m deg.C/W to withstand a temp. of 250deg.c.Thin polythene sheet shall be used as covering between the glass wool and the cladding sheet besides the retaining</p>																		

	<p>material such as chicken mesh etc. Aluminum sheet of thickness 24 SWG shall be used for cladding the tank insulation.</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 to site. To ensure the stability against heavy storm etc. but not less than 1'x1'x6" dimensions. External of the tank should be properly insulated so that hot water temperature does not decrease by more than 5 deg.C in about 16 hrs. Times.</p>
8. PIPING	<p>a) Material Medium class (B class) GI as per IS 1239 shall be used for piping.</p> <p>b) Insulation 25mm thick insulation of 48kg/cu.m. density and K value+0.03 W/MK R value+1.67 sq.m. C/W to withstand and temp. of 250 deg. C be used.</p> <p>Thin plastic sheet shall be used as covering between glass wool and aluminum cladding besides other retaining material like chicken mesh etc. 26 SWG thick aluminium sheet shall be used for cladding the insulated pipe. 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>
9. VALVES/NIPPLE/TESS/BENDS	<p>Gun metal valve ISI marked shall be used.</p> <p>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.</p>
10. INSTRUMENTATION	<p>Temperature gauge: 1 No. (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 up to 200 LPD thereafter 1 tap per 200 LPD superior qualities for distribution line.</p>
11. COLDWATER TANK	<p>HDPE/LDPE material with Gun metal float valve (ISI marked) equal to the capacity of Hot water storage tank.</p>
12. STANDS & PEDESTALS FOR THE TANKS	<p>The tanks will be mounted on stands made out of angle iron frame of 35x35x4mm up to 2000 liters and 65x65x6mm 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 5mm thick MS sheet for full bottom support fixed of 4 horizontal members based on the size of the cold water tank.</p>
13. SYSTEM LAYOUT & DESIGN	<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 springloaded 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/make up tank at a high point in the system to ensure that collectors run full all the times. Capacity of this expansion/make up tank should be 1.5% of the system capacity for all systems.</p>
<p>14. HEAT EXCHANGER</p>	<p>(a) Shell-in-Tube Type</p> <p>(i) Material Copper for forced systems only.</p> <p>Shell in tube type heat exchanger may be used if U-type construction is not employed and if V-type construction is employed, then minimum 4 Nos. of heat exchangers will be used in series. Shell shall be designed for 1.5 times of the designed operating pressure and shall be tested for two times the operating pressure. In case of mild steel shell, corrosion allowance of 1.6 mm shall be provided. Shell shall be designed as per the BIS-2825. All the elements of heat exchanger shall be as per relevant Indian Standard or as per TEMA Class C construction.</p> <p>(ii) Tube Thickness Minimum 22 SWG, but may be higher depending upon the designed pressure requirements.</p> <p>(b) Coil-type Heat Exchanger For thermosyphen systems only. May be used by incorporating Cu/SS coils/retender inside the storage tank.</p> <p>(i) Material Copper/SS tube of ¾" dia.</p> <p>(ii) Thickness Minimum 22 SWG. May be higher depending upon the pressure requirements.</p> <p>(iii) No. of coils and flow Pattern. Shall be so designed to ensure the pressure drop less than 0.3 kg/cm. The surface area of the heat exchanger should not be less an per sq.m of the absorber area of the system (for 100 LPD system the copper tube length of 7 meter is required).</p>
<p>15. ELECTRICAL BACK UP (only upto 1500 lpd)</p>	<p>For 100 lpd - 2 KW For 200 lpd- 2 KW For 300 lpd- 2x2 KW For 400 lpd- 2x2 KW For 500 lpd- 2x2 KW</p>

	Electrical wiring of 2:5 mm sq. 2 core unarmored cable, thermostat of Siemens/Danfoss/Honeywell Make with MCB of 16 Amp. For 600 lpd-6 KW For 800 lpd-9 KW For 1000 lpd-9 KW														
16. ELECTRICAL BACK UP CONTROL PANEL FOR 6 KW	<table border="0"> <tr> <td>1. DP switches 20 Amp.</td> <td>Anchor make or equivalent</td> </tr> <tr> <td>2. MCCB 4 pole 16 Amp For 6KW and 32 Amp for 9 KW</td> <td>Legarand, Schneider, L&T, Siemens, ABB make.</td> </tr> <tr> <td>3. Contactor 25-32 Amp.</td> <td>L&T/Schneider/Siemens make</td> </tr> <tr> <td>4. Amp. Meter 1x30Amps.</td> <td>Rishabh,AE,L&T</td> </tr> <tr> <td>5. Volt meter 0-500V</td> <td>-do-</td> </tr> <tr> <td>6. Amp. Selector Switch</td> <td>AE/Rishabh/ KAAYCEE, L&T BCH,GE</td> </tr> <tr> <td>7. Voltage Selector Switch</td> <td>-do-</td> </tr> </table>	1. DP switches 20 Amp.	Anchor make or equivalent	2. MCCB 4 pole 16 Amp For 6KW and 32 Amp for 9 KW	Legarand, Schneider, L&T, Siemens, ABB make.	3. Contactor 25-32 Amp.	L&T/Schneider/Siemens make	4. Amp. Meter 1x30Amps.	Rishabh,AE,L&T	5. Volt meter 0-500V	-do-	6. Amp. Selector Switch	AE/Rishabh/ KAAYCEE, L&T BCH,GE	7. Voltage Selector Switch	-do-
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PART-5
SCOPE OF WORK

SCOPE OF WORK

The work shall include Design, Fabrication, Manufacturing, Supply, Installation, Testing & Commissioning of 750 LPD X 2 =1500 LPD & 1500 LPD X1 = 1500 LPD capacity Solar Water Heater on turnkey basis in accordance with the technical specifications, at Executive -5 hostel in NIBM Campus Pune. Executive hostel building is ground floor plus two storey bldg with 4 wings. Down connecting work of pipeline is also included.

Sl	System Details	Qty.	Proposed of Use
1	Flat Plate Collector type Solar water heater system 750 x2 = 1500 & 1500 x 1 = 1500LPD Three systems , WITH SERIES & PARALLEL	Three systems	For Hot water Supply in bathrooms in Hostel rooms.

Scope of works shall include:

- A) All works required for proper installation of Solar Water Heater shall be done by the contractor. The entire work shall be performed on turnkey basis. All the works related to the proper installation and functioning of the systems shall have to be carried out by the contractor in the prices offered by him.
- B) Civil works /welding works related to foundation of mounting structure of the system shall be done by the contractor.
- C) All the required hot and cold water pipe lines shall be executed by the contractor for which additional payments shall be made at the rates offered by him.
- D) The complete Solar Water Heater shall be warranted by the contractor against any manufacturing/ design/ installation defects for a minimum period of 5 years from the date of installation and commissioning.
- E) The contractor will be responsible for satisfactory performance, operation & regular maintenance of the Solar Water Heaters for a period of 5 years from the date of commissioning. All the necessary arrangements required in this regard during 5 year s period shall be made by the contractor.
- F) Rectification of all the defects developed in the Solar Water Heater during Warrantee/Guarantee period 5 years shall have to be done by the contractor promptly, at the most within 2 days from the date of receipt of compliant.
- G) AMC will include rectification /replacement of all the defective and consumable components/items. During Warrantee/Guarantee and AMC period, all the arrangements for keeping all the Solar Water Heater functional shall be the sole responsibility of the contractor.

PART (B) FINANCIAL BID
PART-7
FINANCIAL BID

NATIONAL INSTITUTE OF BANK MANAGEMENT, PUNE

QUOTATION FROM

**Sub : Supply, Installation & Commissioning of Solar water Heaters(FPC-Type) at
Hostel -5 building ,NIBM-Pune (For 3000 LPD)**

Item No	Description	Quantity	Rate (Rs.)	Amount (Rs.)	Remark
1	<p>3000 LPD Solar water heating system FPC type Stand alone models with MNRE approved For bathing application with 0.5 mm stainless steel (grade 304) hot water storage tank with back up heater pockets (3 Nos.) to accommodate 3 KW/6KW heater elements 3 KW/6KW x 11/4 check nut with Thermostat pocket etc. couple with all manifolds.</p> <p>Manifold with brass material. the entire system shall be connected with cold/hot water connectivity as per standard design. Insulation fiber wool or Puf material etc. complete system designed by the supplier and approved by MNRE or State Govt. Solar energy Dept. approved system. All FPC panel manufactured by MNRE approved vendor,</p> <p>Appropriate approval documents needs to be enclosed with this part of Tender document. 750 litres systems to be connected in series and parallel so that sufficient hot water available for 24 hours for hostel needs.</p> <p>Please refer full tender document, MNRE standard draft enclosed which part of this tender. The system needs to be supplied along with back up heaters assemble along with electrical control panel etc. complete system.</p>	<p>750 LPD X 2 Nos. = 1500 LPD And 1500 LPD X 1 No. = 1500 LPD</p>			

Item No	Description	Quantity	Rate (Rs.)	Amount (Rs.)	Remark
3	<u>OTHER COMPONENTS KITECH PIPING AND PLUMBING ACESSARY</u>				
(a)	Composite pipes 1.25" Ø	100 m			
(b)	Composite pipes 1" Ø	10 m			
(c)	Composite pipes ½" Ø	20 m			
(d)	Venting through PVC pipes ½" 'C' Class	30 m			
(e)	Ball Valve - 1500 LPD System (750 LPD x 2 Nos.) 1500 LPD System (1500 LPD x 1Nos.)	2 Nos. 1 Nos.			
(f)	NRV Valve Brass Make 1.25" (Appropriate Quantity)	3 Nos.			
(g)	NRV Valve ½" Brass Make (Appropriate Quantity)	3 Nos.			
4	Transportation to NIBM site lifting, installation, testing and commissioning of the entire system within 15 days' time of purchase order acceptance.	1 Job.			
5	GST and allied taxes with detailed break-up				
6	Net Cost of Three Systems				
7	Existing hot water Solar system as is where is basis. All the scrap tank, panels, pipes etc. discarded material to be removed from NIBM Campus within 5 days time from erection & commissioning of the new system if not cleared debris & shifted outside campus an amount of Rs 5000.00 will be recovered from your bills.				
8	Buy back cost of scrapped old solar system	1 Job.	Lump sum		

- Note :**
- 1) As per your design if quantity varies, you may quote accordingly.
 - 2) Please visit NIBM Campus & Inspect the site take measurements and submit quotation.
 - 3) The per meter rates for pipe line include of all required accessories such as NRV, gate valves/nipple/tees/bends/taps etc as defined in technical specifications of this tender document & are in accordance with the specifications & various terms & conditions mentioned in the tender document.
 - 4) The above cost of pipe line is being given for the specified tentative lengths, for the purpose of comparison of offers. However the work shall be done for actual required length at site on the above rates of pipeline and quote accordingly.
 - 5) The rates are inclusive of all taxes and duties what so ever.
 - 6) AMC will be awarded only after successful completion of 5 year with satisfactory services.

(Signature of Tenderer) Seal

