

Thane Municipal Corporation



BIDDING DOCUMENT

for the

Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City

(Following single stage two envelope bidding procedure)

Issued on: 03/01/2017

Invitation for Bids No.: TMC/PRO/WATER-HQ/2266/2016-17

Employer: Thane Municipal Corporation

State: Maharashtra

Country: India

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1. TENDER NOTICE

2. INVITATION FOR PROPOSAL

2.1 RFP Notice

This RFP Document is being published by the Thane Municipal Corporation, for the Project **“Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City “**

Bidder is advised to study this RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications. This RFP document is not transferable.

2.2 Important Dates / Information

Sr. No.	Information	Details
1	RFP reference No. and Date	TMC/PRO/WATER-HQ/2266/2016-17 Dt 03/01/2017
2	Tender Fee	25,000/- + VAT
3	Earnest Money Deposit	150 million
4	Bid Validity Period	180 Days from the Date of Opening the Bid
5	Performance Bank Guarantee	10 % of the Contract Value
6	Last date for submission of written queries for clarifications. Email ID for sending pre-bid queries	Electronic mail address: sewater@thanecity.gov.in , Cc: gite.mangesh@rediffmail.com Queries will not be entertain other than received on above Email ID
7	Date & Time of pre-bid meeting	17.01.2016 at 1200 Hrs.
8	Place of pre-bid meeting	Office of The City Engineer, Water Supply Department Thane Municipal Corporation Mahanagarpalika Bhavan, Dr. Ulmeda Road, Chandanwadi, Panchpakhadi, Thane - 400602, Maharashtra, INDIA
9	Tender Purchase Date Tender Submission Date	05.01.2017 To 30.01.2017: till 1600 Hrs. 30.01.2017: till 1600 Hrs.
10	Place, Time and Date of opening of Technical proposals received in response to the RFP notice	Office of the City Engineer (Water Supply Department), Thane Municipal Corporation, Mahanagarpalika Bhavan, Dr. Ulmeda Road, Chandanwadi, Panchpakhadi, Thane - 400602 On 03.02.2017 at 1630 Hrs.
11	Place, Time and Date of opening of Financial proposals received in response to the RFP notice	Office of the City Engineer (Water Supply Department), Thane Municipal Corporation, Mahanagarpalika Bhavan, Dr. Ulmeda Road, Chandanwadi, Panchpakhadi, Thane - 400602 at www.mahatenders.gov.in

Sr. No.	Information	Details
12	Contact Person for queries	Superintending Engineer, Water Supply Department, Thane Municipal Corporation Mahanagarपालिका Bhavan, Dr. Ulmeda Road, Chandanwadi, Panchpakhadi, Thane, Phone:022-25363580 / 9167515115 / 7738344177 Fax:022-25364779 Electronic mail address: sewater@thanecity.gov.in, Cc gite.mangesh@rediffmail.com
13	Addressee and Address for the EMD & Tender Fees are to be submitted	Addressee for the EMD : The City Engineer, TMC, Thane, Maharashtra. By online mode only.
14	Submission Type	Open Tender, through e-Tendering system

3. INTRODUCTION AND BACKGROUND

3.1 Brief History of Water Supply of Thane

The city of Thane is one of Maharashtra's major industrial town and the district headquarters. Thane is included in the Mumbai Metropolitan Region and is one of the 18 Urban Centers therein. Being the first urban Center on the periphery of the Greater Mumbai, the city occupies a unique position in the region. The city has been marked by rapid demographic growth and has witnessed tenfold multiplication in the last forty years. However, owing to large industrial development and its proximity to the Greater Mumbai, Thane has demonstrated its will to rise to the challenge and exhibit marked improvement in generating increased revenues and convert them into better economic growth, improved services and expanded infrastructure. The geographical jurisdiction of the Thane city spreads over an area of 128 sq. km. The city is located at the mean sea level on the northern part of the Konkan region. The city is also known as Lake city because of the 35 lakes encompassing an area of about 40 Ha

Thane city is managed and governed by Thane Municipal Corporation (TMC) and is responsible for providing infrastructure services to the citizens of the city. Thane Municipal Corporation has well planned infrastructure for Water supply system, which covers approximate area of 128 sq. km with a population of over 21lakhs. For administrative purposes, the entire city is divided into Ten Ward Committee Area.

3.2 About Project

Thane Municipal Corporation is in process of implementing 100% Smart Metering for the entire Thane City for converting intermediate supply to 24X7 pressurized Water Supply to each and every house hold in the coming years.

The objective of metering is conserving the water resource. In order to achieve this, it is necessary to know how much water is leaked at various stages in the process and hence metering becomes must. In city of Thane it has to be two pronged strategy because apart from the leakages there is high per capita consumption since long. It is necessary to change the mind set while plugging the physical leakages.

The project intends to implement universal Smart Metering for the water consumption and the application of water charges based on the effective water consumption by the consumer.

By implementing 100% Smart Metering TMC can conduct water audit and systematic leakage detection and repair activity to bringing down the level of NRW in the distribution system to the desired level of 15%.

The commercial connections as per the definition existing today are found to fetch large revenue. Even though these connections are metered, the poor quality and type of meters and the reading efficiency of the staff indicate an urgent need to go for fixing AMR meters for these connections, including changing the connection pipes and ferrules.

The project is intended to be implemented in 3 years followed by 7 years of Operation & Maintenance as per the schedule mentioned below

Sr. No.	Project Stage	Description
1	1st Year	100% non-domestic and bulk consumer metering for the proposed Package
		Consumer Survey & Consumer Awareness in the proposed Package
2	2nd Year	50% domestic consumers metering for proposed Package
		O & M of earlier installed meters & Consumer Awareness in the proposed Package
3	3rd Year	50% domestic consumers metering for proposed Package
		O & M of earlier installed meters & Consumer Awareness in the proposed Package
4	4th Year onwards till 10th Year	O & M of earlier installed meters & Consumer Awareness in the proposed Package

Note: The above timeline tentative and can be squeezed in mutual agreement with Bidder, TMC to speed up the work and finish at the earliest based on the requirement

4. TENDER EVALUATION

The Bidder must possess the technical know-how and the financial ability that would be required to successfully provide the services sought by TMC, for the entire period of the contract. The Bidder's Bid must be complete in all respect, conform to all the requirements, terms and conditions and specifications as stipulated in the RFP document.

The evaluation process of the RFP proposed to be adopted by TMC is indicated under this clause. The purpose of this clause is only to provide the Bidder an idea of the evaluation process that TMC may adopt. However, TMC reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidder of any such change.

4.1 Envelope-I (Technical Bid)

First of all, envelope-I of the tender will be opened to verify its contents as per requirements. If the various documents contained in envelope do not meet the requirements of the department, the tender opening authority will record a note accordingly, and envelope-II of such bidder will not be considered for further action and the same will be rejected. TMC shall appoint a Tender Evaluation Committee (TEC) to scrutinize and evaluate the technical and commercial bids received. The TEC will examine the Bids to determine whether they are complete response and whether the Bid format confirms to the RFP requirements. TMC may waive any informality or nonconformity in a Bid which does not constitute a material deviation according to TMC.

There should be no mention of bid prices in any part of the Bid other than the Commercial Bids.

4.2 Envelope-II (Commercial Bid)

TMC will open the Commercial Bids of only Technically Qualified Bidders, in the presence of the nodal officer / designated representatives of the Bidder who choose to attend, at the time, date and place, as decided and published TMC website. The lowest offered cost of whole work will be considered for deciding L-1 bidder.

5. PRE-QUALIFICATION CRITERIA

5.1 Technical eligibility criteria for Bidder:

- 5.1.1** The Bidder should have MOU with meter manufacturer.
- 5.1.2** The Bidder can sign MoU with only those water meter manufacturing companies fulfilling Technical & Financial eligibility criteria as mentioned in point no. 5.3 & 5.4
- 5.1.3** The Bidder can sign MoU with only one water meter manufacturer.
- 5.1.4** The Bidder has to execute a triparty agreement after award of contract between Bidder, Meter manufacturing company and TMC with clear mention of roles and responsibilities of Bidder & Meter Manufacturing Company.
- 5.1.5** The Bidder should be registered in India as per the identity of bidder, i.e. if company then it should be registered with ROC, if partnership firm then under partnership act etc.
- 5.1.6** The Bidder should have successfully completed and commissioned at least 3 (THREE) similar project (drinking water supply project) of costing not less than INR 610 million or 2 (TWO) similar project of costing not less than INR 765 million or 1 (ONE) similar project of costing not less than INR 1220 million under a single contract in his own name with any Govt. / Semi Govt. organization in India or Abroad in last seven years ending last day of month previous to the one in which applications are invited.
- 5.1.7** The Bidder should have experience of installation of minimum 1,00,000 water meters of any type in last 5 (FIVE) years ending last day of month previous to the one in which applications are invited.
- 5.1.8** The Bidder should have successfully carried out installation of AMR meters and the water supply billing & distribution including customer services for at least 12 (TWELVE) months in the last 5 (FIVE) years ending last day of month previous to the one in which applications are invited for not less than 50,000 consumers.
- 5.1.9** The Bidder should have carried out Operation & Maintenance for a minimum period of 3 (THREE) years in a Drinking Water Supply Project of value not less than INR 1220 million. in last 5 (FIVE) years Or an O&M Contract of value INR 50 million per year in last 5 (Five) ending last day of month previous to the one in which applications are invited years in India.
- 5.1.10** The Bidder should have successfully carried out Consumer Survey for a city/town of a population not less than one million in last 5 (FIVE) years in India.
- 5.1.11** The bidder should have successfully carried out the water supply billing & distribution and established & operated customer management services for at least 12 (TWELVE) months in the last 5 (FIVE) years ending last day of month previous to the one in which applications are invited for not less than 50,000 consumers.

5.1.12 The bidder / meter manufacturer with whom MoU is signed should have successfully developed and supplied Billing software for a minimum population of 1 (ONE) million and maintained for minimum of 12 (TWELVE) months in last 5 (FIVE) years ending last day of month previous to the one in which applications are invited.

5.1.13 The bidder should give undertaking that they will create Customer Care Center in Thane City within 6 (Six) months from the date of work order.

5.1.14 The Bidder should produce certificate for satisfactory commissioning of works specified above from the officer not below the rank of Executive Engineer

5.2 Financial eligibility criteria for Bidder:

5.2.1 Average Annual turnover of the Bidder in water sector shall be equal to or greater than INR 500 million in three preceding financial years 2013-2014, 2014-2015, 2015-2016.

5.2.2 Minimum Net Worth of the Bidder in water sector shall be equal to or greater than INR 150 million as on 31st March 2016.

5.2.3 Profit before tax should be positive in at least 3 (THREE) financial years, out of last 5 (FIVE) financial years of the Bidder.

5.2.4 The Bidder shall demonstrate that it has access to, or has available liquid assets (aggregate of working capital, cash in hand) and/or lines of credit sufficient to meet the construction cash flow requirements, minimum of INR 150 million as on 31st March 2016.

5.2.5 The Bidder shall submit along with the bid details of all pending litigation as per attached Annexure.

5.2.6 Bidders who have applied for/ are undergoing Corporate Debt Restructuring (CDR) or facing recovery proceedings from financial institutions or facing winding up proceedings or those under BIFR in the last 5 (Five) financial years ending 31-03-2016 shall not be considered.

5.2.7 The Bidder should have a minimum available bidding capacity in water sector of INR 1500 million.

Bid capacity: The Bidder shall demonstrate his bidding capacity as per the formula stated below.

$$\text{Bidding Capacity} = (A \times N \times 2) - B$$

Where

A- Maximum value of works executed in any one year during last three financial years (at current price level)

N- No. of Years described for the completion of the subject contract.

B- Value, at current price level, of existing commitments and ongoing works to be completed in the next ' N ' years.

For the purpose of enhancing the costs, following multiplying factors shall be used:

Financial Year	Multiplying Factor
2014-2015	1.00
2013-2014	1.10
2012-2013	1.21

Note: - All the financial details required under clauses shall be certified by its chartered accountant / equivalent, otherwise the information will not be considered for evaluation.

5.3 Technical eligibility criteria for Meter Manufacturer:

5.3.1 All those Water Meter Manufacturers should have worked at least for five years in the area of design, manufacturing of water meter conforming to ISO 4064 and or OIML R49 with EEC/MID certifications in India / Abroad shall be eligible.

5.3.2 Water meter manufacturer blacklisted, anywhere in India or Abroad cannot participate in bidding process.

5.3.3 All those Water Meter Manufacturers who are ready to share open source communication system protocol for AMR/AMI shall be eligible.

5.3.4 The Water Meter Manufacturer should have manufactured/supplied in India or abroad at least 3,00,000 Electromechanical/ Ultrasonic/ Electromagnetic water meters of any size in the last 5 (FIVE) financial years.

5.3.5 The Water Meter Manufacturer should have supplied minimum 1,50,000 AMR water meters of any size which are running satisfactorily in last 5 (FIVE) years. (Necessary certificates should be attached).

5.3.6 The Water Meter Manufacturer should have supplied minimum 25,000 AMR water meters in 1 (ONE) lot in last 5 (FIVE) years. (Necessary documents proof should be attached).

5.3.7 The Water Meter Manufacturer should give undertaking that they will create Water Meter Calibration, Test Bench & Service Center in Thane City within two months from the date of issue of work order.

5.3.8 The Water meter manufacturer must possess permission to use free frequency for AMR/AMI water meter communication system.

5.3.9 All water meters along with AMR/AMI module shall be of protection class of IP68 for which necessary certificate shall be submitted along with Technical Bid.

5.3.10 All water meters along with AMR module shall be upgradable to AMI system without removing installed meter.

5.3.11 The Water Meter Manufacturer should have Supplied, Installed SCADA / AMR /AMI in a water supply scheme which shall be in operation for at least 12 (TWELVE) months in last 5 (FIVE) years.

5.3.12 The water meter manufacturer shall stand warranty/guarantee, spares parts and supports for 10 (TEN) years from the date of successful installation of the water meters.

5.3.13 The water meter manufacturer shall sign a tripartite Agreement with the Bidder and Thane Municipal Corporation for warranty/guarantee and technical support in the O&M period for the Meters supplied for 7 (Seven) years from the date of successful installation of meters.

5.4 Financial eligibility criteria for Water Meter Manufacturer:

5.4.1 Average Annual turnover of the Water Meter Manufacturer shall be equal to or greater than INR 500 million in three preceding financial years 2013-2014, 2014-2015, 2015-2016.

5.4.2 Minimum Net Worth of the Water Meter Manufacturer shall be equal to or greater than INR 150 million as on 31st March 2016.

5.4.3 Profit before tax should be positive in at least 3 (THREE) financial years, out of last 5 (FIVE) financial years.

Note: - All the financial details required under clauses shall be certified by its Chartered Accountant / Equivalent, otherwise the information will not be considered for evaluation.

6. INSTRUCTIONS TO BIDDER

The Commissioner, Thane Municipal Corporation, invites the reputed agencies to submit their technical proposals and financial offers for the project of ***“Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City”***, in accordance with conditions and manner prescribed in this Request for Proposal (RFP) document.

6.1 Cost of RFP

The Cost of Tender document INR 25,000/- + VAT to be submitted online.

6.2 Completeness of the RFP

Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications. The response to this RFP should be full and complete in all respects. Failure to furnish all information required by the RFP documents or submission of a proposal not substantially responsive to the RFP documents in every respect will be at the bidder's risk and may result in rejection of its Proposal.

6.3 Proposal Preparation Cost

The bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by TMC to facilitate the evaluation process, and in negotiating a definitive Contract or all such activities related to the bid process. TMC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. All materials submitted by the Bidder shall become the property of the TMC and may be returned at its sole discretion.

6.4 Pre-Bid Meeting

TMC will host a Pre-Bid Meeting for queries (if any) by the prospective bidders. The date, time and place of the meeting are given in Section 2.2. The representatives of the bidders may attend the pre-bid meeting at their own cost. The purpose of the pre-bid meeting is to provide a forum to the bidders to clarify their doubts / seek clarification or additional information, necessary for them to submit their bid.

Queries submitted post the above given in Section 2.2 deadline or which do not adhere to the above mentioned format may not be responded to. All the responses to the queries (clarifications / corrigendum) shall be made available on the TMC website www.mahatenders.gov.in

6.5 Amendment of RFP Document

At any time till 48 hours before the deadline for submission of bids, the TMC, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by an amendment. The bidders are advised to visit the website www.mahatenders.gov.in on regular basis for checking necessary updates. TMC also reserves the rights to amend the dates mentioned in this RFP for bid process. In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the TMC may, at its discretion, extend the last date for the receipt of Bids.

6.6 TMCs' rights to terminate the Process

TMC may terminate the RFP process at any time and without assigning any reason. TMC makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by TMC. The bidder's participation in this process may result in TMC selecting the bidder to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by the TMC to execute a contract or to continue negotiations. TMC may terminate negotiations at any time without assigning any reason.

6.7 Earnest Money Deposit (EMD) and its amount

Bidders shall submit, along with their Bids, EMD of INR. 150 million , and shall be paid ONLINE to the City Engineer, Thane Municipal Corporation,

In case bid is submitted without EMD as mentioned above then the Department reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned.

Unsuccessful Bidder's EMD will be discharged/ returned as promptly as possible, but not later than 30 days after Signing of the Contract with the Selected Bidder.

The EMD may be forfeited:

- If a Bidder withdraws their bid or increases their quoted prices during the period of bid validity or its extended period, if any; or
- In the case of a successful bidder, if the Bidder fails to sign the Contract or to furnish Performance Bank Guarantee within specified time in accordance with the format given in the RFP
- During the bid process, if a Bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
- During the bid process, if any information found wrong / manipulated / hidden in the bid.
- The decision of TMC regarding forfeiture of the EMD and rejection of bid shall be final & shall not be called upon question under any circumstances.

6.8 Security Deposit

A. Bidder has to submit security deposit of 5% of the estimated cost or Accepted Tender cost whichever is higher

- i. **Initial Security Deposit:** 1% of cost put to tender in the form of Fixed Deposit Receipt or Bank Guarantee will be collected as initial security deposit.
- ii. **Deductions through R.A. Bills:** Balance 4% amount will be recovered through each running bill at 8% of the gross amount of R.A. Bill to the extent that total required security deposit is to be recovered.

B. Additional Security Deposit.

The rate quoted by the bidder in a range of 15% (below) of the estimated cost shall be considered as a normal bid. In case the bidder quotes rate more than 15% below the estimated cost put to tender, additional security deposit in the form of bank guarantee equivalent to the amount by which the bid is lower than the normal bid shall be given at the time of award of tender. This bank guarantee shall serve as additional security and will be released after completion of the work period of the job. The bank guarantee should be as per TMC's standard format initially valid for 30 months work period and should be extended if required up to work completion. All charges/expenses for procuring the Bank Guarantee extending it from time to time till the completion of the actual work done period shall be borne by the contractor and will not be reimbursed. Bank Guarantee shall be of any Nationalized Bank, Scheduled Bank only.

6.9 Submissions of Bids

Complete bidding process will be online (e-tendering) in two envelope system. All the notification & details terms and conditions regarding, this tender notice hereafter will be published online on website www.mahatenders.gov.in. Bidding documents can be seen and downloaded from the above website. The bid can be submitted in electronic format on the above website within the deadline as specified in section 2.2 of the RFP.

Bids must be accompanied with scanned copy of EMD receipt. Bid shall be treated as invalid if scan copies are not submitted online along with the bid. In case of online payment of EMD, necessary payment receipt needs to be furnished and submitted online along with bid.

Bidder should upload information as scanned copies in PDF format for Pre-Qualification as mentioned in the RFP. If required, Bidder should submit original copies of scanned copies for verification during Technical bids opening.

Bidder should upload Bill of Quantity format as mentioned in the RFP. Time and date of opening of financial bids will be informed by email to technically qualified bidder. The guidelines to download the tender documents and online submission of bids and procedure of tender opening can be downloaded from website www.mahatenders.gov.in Bidders should have valid class II / III Digital Signature Certificate (DSC) obtained from any certifying Authorities. The City Engineer,

Thane Municipal Corporation, reserves the right to accept or reject any or all the tenders without assigning any reason

6.10 Language of Bids

The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and TMC, shall be written in English language, provided that any printed literature furnished by the Bidder in another language shall be accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the bidder.

6.11 Bid Submission Format

The entire proposal shall be strictly as per the format specified in this Request for Proposal. Bids with deviation from this format shall be liable for rejection.

6.12 Documents Comprising of Bids

The Bid document comprises of the following:

6.12.1 PART A – TECHNICAL BID

The following documents duly signed & scanned shall be submitted online:

- i) Covering letter on the letter head of the Bidder showing submission of tender.
- ii) Copy of the Earnest Money Deposit receipt as mentioned in NIT.
- iii) Undertakings as per Annexures 1 to 7
- iv) The supporting documents for financial and technical eligibility (proofs of qualification criteria) as given in the bid documents as per Section 5.
- v) Formats / Schedule as per forms given in FORM I-VII.
- vi) TIN Number as issued by VAT department, proof of having submitted the latest VAT / CST returns etc.
- vii) Document of PAN No.
- viii) Power of Attorney authorizing the signatory of the bidder.
- ix) Technical offer stating compliance with the required technical specifications as per the "Technical Specifications for the Tender", in particular:
 - Full-fledged detailed scheme, showing technology & methodology for fixing of AMR meters, taking remote water meter readings from the AMR water meters.
 - Accuracy test certificate flow measurement.

- Performance certificate of projects from competent authority such as EE for supply and installation of water meters executed in past Five to Seven years
- Organization chart and qualification of Operation & Maintenance staff Undertakings on letter head as per format attached:
 - a) Regarding non-black listing and debarring from tendering by any of its clients. (Specimen given hereunder in the document as Annexure -1
 - b) Regarding being acquainted with the tender document / condition and entering into contract agreement as described in Annexure-2
 - c) Including detailed information on Litigation on past contracts Annexure-3
 - d) Regarding Sales /service setup in Thane Annexure-4

Note: - Price bid should not be quoted anywhere in the Technical Bid, any mention to the Bid price in the technical Bid will cause disqualification of the Bid. Price bid of only those bidders shall be opened who qualify as per eligibility criteria. The price bid of bidders who are not considered qualified shall not be entertained.

6.12.2 PART B - PRICE BID:

- 1 The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Employer.
- 2 The bidders are required to fill all the columns of the priced bid as uploaded. Cost of AMR meter includes cost of supply of meter including all taxes and duties and all costs for testing at FCRI. The Part B-Price bid shall be opened only for those bidders whose technical bid is considered substantially responsive to the NIT/Addendum/pre-bid replies issued by Employer. All taxes, duties, Labour cess, VAT, License fee, Octroi/LBT, Road permit, FCRI Testing Charges, Transit Insurance, Transportation and other levies applicable on work contracts, shall be deemed to be included by the bidder in his offer. 'C' form will not be issued for inter-state purchases. Thane Municipal Corporation will not be liable to pay any taxes/duties, which the Bidder has not considered in his tender by oversight or whatsoever reasons, though the same is applicable on the date of tender. Further, the Thane Municipal Corporation will not be liable to pay the difference in taxes/duties if the percentage of taxes/duties applicable on the date of tender or the amount is calculated by Bidder erroneously.
- 3 The quoted Cost shall remain fixed throughout the contract period, which shall also include loading, unloading, packing and forwarding, transportation / retransformation for local transfer, freight, transit insurance and all type of taxes, duties, etc. to complete the awarded

work. The bidder shall not be entitled to claim any sort of concession, whatsoever on account of the rise in the prices of the articles in the market due to whatsoever reasons during the period of contract.

4 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.

Bidders shall furnish the required information on their Pre-Qualification, technical and financial proposals in the enclosed format only. Any deviations in format may make the tender liable for rejection. Disclosure of Commercial information of the bid in Pre-Qualification or Technical Folder shall also be the sufficient ground for rejection of the bid.

6.13 Rejection of Bids

The bid shall be rejected if the bidder:-

- a) Does not meet the eligibility criteria as specified under section 5.0 or if supporting documents are not submitted.
- b) Stipulates the validity period of less than 180 days.
- c) Stipulates own condition or conditional bid rates.
- d) There are any criminal cases pending.
- e) Does not submit adequate amount of EMD as per condition in the bid.
- f) Does not submit Identification and financial data duly certified by the Chartered Accountant / equivalent authority.
- g) Does not disclose the full name / names and address of the Bidder / Partners / Directors in case of proprietorship / partnership / Ltd. / Public Limited concern firm if any.
- h) The Sales Tax / VAT Registration Certificate are not enclosed.
- i) The Firm Registration certificate / Manufacturing Registration Certificate of the bidder is not enclosed
- j) Does not prove its experience of executing similar type of work as per qualification criteria. The experience shall be documented by performance certificates be issued by superior rank officer at level of Executive Engineer or equivalent or any superior officer rank.
- k) The Power of Attorney of the person signing the Bid is not enclosed.
- l) The record of litigation and arbitration is not disclosed (as per Annexure 3).
- m) Tries to influence decision on bid evaluation, bid comparison or Contract award.
- n) The Technical Bid contains false information or omission of facts.
- o) Quotes any price tag in the Technical Bid.
- p) The tender proposes any alterations in the work specified in the tender or in the time allowed for carrying out the work or any other conditions.
- q) Any of the pages of the tender are removed and/ or replaced or matter changed / deleted / added.
- s) Any errors made in the tender.
- t) All conditions and additions not initiated by the bidder.
- u) The Bidder or in the case of a firm each partner thereof does not sign or the signature is/ are not attested by witness on the pages of the tender in the space provided for the purpose.

6.14 Evaluation Process

The Bidder must possess the technical know-how and the financial wherewithal that would be required to successfully provide the services sought by TMC, for the entire period of the contract. The Bidder's Bid must be complete in all respect, conform to all the requirements, terms and conditions and specifications as stipulated in the RFP document.

The evaluation process of the RFP proposed to be adopted by TMC is indicated under this clause. The purpose of this clause is only to provide the Bidder an idea of the evaluation process that TMC may adopt. However, TMC reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidder of any such change.

TMC shall appoint a Tender Evaluation Committee (TEC) to scrutinize and evaluate the technical and commercial bids received. The TEC will examine the Bids to determine whether they are complete, response and whether the Bid format confirms to the RFP requirements. TMC may waive any informality or nonconformity in a Bid which does not constitute a material deviation according to TMC.

There should be no mention of bid prices in any part of the Bid other than the Commercial Bids.

6.15 Opening of Commercial Bid

TMC will open the Commercial Bids of only Technically Qualified Bidders, in the presence of the nodal officer / designated representatives of the Bidder who choose to attend, at the time, date and place, as decided and published TMC website.

The Commercial Bids will be evaluated by TMC for completeness and accuracy. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail.

The amount stated in the proposal form, adjusted in accordance with the above mentioned procedure, shall be considered as binding, unless it causes the overall proposal price to rise, in which case the proposal price shall govern.

If the bidder does not accept the correction of errors, its bid will be rejected and the bid security may be forfeited.

6.16 Award Criteria

The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

6.17 TMCs' Rights to Accept/Reject any or all Proposals

TMC reserves the right to accept or reject any proposal, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected bidder or bidders of the grounds for TMCs' action

6.18 Notifications of awards and Signing of Contract

Prior to the expiration of the period of proposal validity, the bidder will be notified in writing or by fax or email that its proposal has been accepted. The notification of award will constitute the formation of the Contract. Upon the Bidder's executing the contract with TMC, it will promptly notify each unsuccessful bidder and return their EMDs. At the time TMC notifies the successful Bidder that its bid has been accepted, TMC will send the Bidders the Proforma for Contract, incorporating all clauses/agreements between the parties. Within 7 days of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to TMC. Draft Format of the contract is given in the Annexure VIII.

6.19 Performance Bank Guarantee

The Bidder shall at his own expense, deposit with department, within 15 (Fifteen) working days of the notification of award of the contract or prior to signing of the contract, whichever is earlier, an unconditional and irrevocable Performance Bank Guarantee (PBG) from a Nationalized / Schedule Commercial Bank, as per the format Annexure-7 in this RFP, payable on demand, for the due performance and fulfillment of the contract by the bidder. This Performance Bank Guarantee will be for an amount equivalent to 10% of contract value (6% from Bidder and 4% from Water Meter manufacturer). All charges whatsoever such as premium, commission, etc. with respect to the Performance Bank Guarantee shall be borne by the bidder/Meter manufacturer. The performance bank guarantee shall be valid till the end of six months after the expiration of contract period and should be in the format prescribed in this RFP. The Performance Bank Guarantee may be discharged/ returned by department upon being satisfied that there has been due performance of the obligations of the Bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee. In the event of the Bidder being unable to service the contract for whatever reason, department would evoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of department under the Contract in the matter, the proceeds of the PBG shall be payable to department as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. Department shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default. Department shall also be entitled to make recoveries from the Bidder's bills, performance bank guarantee, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

6.20 Failure to agree with the Terms & Conditions of the RFP/Contract

Failure of the Bidder to agree with the Terms & Conditions of the RFP/Contract shall constitute sufficient grounds for the annulment of the award of contract, in which event the contract may be awarded to the next most responsive bidder.

6.21 Terms and Conditions of the Tender

Bidder is required to refer to the draft Contract Agreement, attached as Annexure in this RFP, for all the terms and conditions (including project timelines) to be adhered by the successful bidder during Project Implementation and Post implementation period. Please note that one needs to read the Contract Agreement as a whole document; and the Annexure mentioned there-in may not correspond to the RFP Annexure. Please refer to the Interpretation Section of the Agreement for reference of the Annexure.

6.22 Right Reserved

- a) Right to reject any or all tenders without assigning any reason thereof is reserved by the Municipal Commissioner, whose decision will be final and legally binding on all the tenderers.
- b) The Municipal Commissioner, Thane Municipal Corporation shall be the sole arbitrator.

7. SCOPE OF WORK

7.1 AMR Flow Meter along with AMR infrastructure.

7.1.1 The completion period for supply, installation, and commissioning work is 36 months from the date of the issue of the contract.

7.1.2 The Bidder will have to ensure the supply & installation of all equipment as per the tender. Penalties will be levied for delay.

7.1.3 The Bidder shall be responsible to arrange the inspection at Manufacturer's Premises for a minimum number of two officers for inspection call at the Bidder's cost at the arrival of the first lot of meters at the project site, not later than 60 days from the starting date of the contract, a randomly selected sample of the meters shall be sent for testing at FCRI. The same procedure will be carried out at the arrival of the second lot of meters (if any) not later than 75 days from the starting date. During the supply of meters, samples from each lot may be obtained by random sampling basis from each lot. Number of samples depends on the size of the lot under supply. The lot size and corresponding sample size, and criteria of acceptance are mentioned below. The criterion for acceptance is based on the following table which is mentioned in IS 779: 1994. Second sample will be necessary only when the number of meters failed in first sample falls in between acceptance and rejection number.

Lot Size	First Sample	Acceptance Number	Rejection Number	Second Sample	Cumulative Acceptance
1-50	5	0	1	-	-
51-150	13	0	2	13	1
151-280	20	0	3	20	3
281-500	32	1	3	32	4
501-1200	50	2	5	50	6
1201-3200	80	3	6	80	9
3201-10000	125	5	9	125	12

7.1.4 It will be mandatory for the successful bidder to provide the demonstration of his remote AMR water meter reading and the proposed scheme for bill preparation to the TMC staff as and when required at his cost, before the installation of AMR meters starts.

7.1.5 The scheme of remote reading shall specify the required nos. of hand held units (HHU)/meter reading device & Easy route host, etc., to collect & upload data for the area of the contract.

7.1.6 The meter reading (AMR) scheme shall be formulated keeping in view that the AMR Water meter readings to be obtained by RF based AMR technology, which shall be appropriate for the make & size of the water meters & its software, shall have an output format compatible with the System of TMC.

7.1.7 The demonstration of the remote AMR water meter reading shall be carried out for a cluster of 20 meters. The bidder will have to bear the cost of demonstration including cost of meters and their fixing at site. In case the demonstration at the given demo area is unsatisfactory to the Engineer-In-Charge, the whole procedure will become null and void, and the Engineer-In-Charge will have the power to terminate the contract. In such case, the Bidder shall bear the cost for uninstalling the meters and re-establish the same conditions at site. The demonstration will include the following:

7.1.7.1 On handing over the identified demo area, the bidder will fix the AMR meter (inclusive of all accessories).

7.1.7.2 Remote reading of individual and groups of water meters from a distance of 200m with clear line of sight under submergence condition with lid of chamber in closed position, with Drive by mode/fixed system.

7.1.7.3 Remote reading of individual and grouped water meter from 50 m with obstruction of any structures under submergence condition with lid of chamber in closed position, with walk by mode/fixed system.

7.1.8 Integration of meter reading data with existing system of Software for printing & e-publishing (SMS/Email) of bills.

7.1.9 The AMR communication frequency used should be operating on free frequency band, and the AMR water meter manufacturer has to produce the valid copy of license issued by Govt. of India / Dept. of Telecom (DOT), stating that the said operating frequency lies in the free band and has the permission to use the same.

7.1.10 Installation of water meters means replacing the House connections (MDPE pipes) from distribution pipe/ferrule up to the water meter for all consumers along with plugging of existing drills on pipelines with suitable measure to the satisfaction of Engineer in Charge.

7.1.11 After the Consumer Survey the details indicated in the relevant Item's in Technical Specification, and which shall be kept updated throughout the 7 years of Operation & Maintenance.

7.1.12 The bidder shall issue laminated photo identity cards under the joint signatures of Executive Engineer of the zone & Authorized representative of the Bidder to its personnel responsible for carrying out the meter installation and maintenance. While on work, the Identity cards will be displayed by the employees of the Bidder. The Bidder's employees will be courteous in their interaction with the consumer. It will be binding on the Bidder to discontinue the services of any of its employee with immediate effect on receipt of complaint (verbal or in writing) on verification by the engineer in charge.

7.1.13 Existing consumer meter, possibly found at work sites, shall be removed by dismantling existing threaded / flanged specials without damaging the specials. If the meter belongs to

the consumer then the meter and all fittings shall be returned to the consumer. If the meter is marked as TMC in consumer data provided by TMC then meter and all fittings shall be deposited in TMC's department.

- 7.1.14** The bidder shall submit a weekly progress report on water meters supplied & installed to the Superintending Engineer. The progress report will include details of the consumer connection where the water meter is installed and the date of installation. Non-submission of weekly report shall invite penalty of INR 1000/-. Format of the weekly progress will be designed by the bidder in consultation with TMC.
- 7.1.15** All the rights of software and database developed by the Bidder shall remain with TMC including source code.
- 7.1.16** TMC and the bidder will persuade the consumers for Changing the house connection & installation of new AMR meters. In case of denied access to the installation site, a 3-day notice will be served to the consumer.
- 7.1.17** The work of installation of meters will be supervised by the Engineer-In-Charge & its designated staff. All site disputes in respect of installation of meters will be sorted out from time to time by the Executive Engineer of the zone or his appointed representative.
- 7.1.18** The bidder shall install the water meters as per standard and sound engineering practices. Bidder shall also educate the consumers' through pamphlets (Do's & Don'ts) to avoid damage to the installed water meters.
- 7.1.19** Working time: installation of meters will be carried out between 8 AM to 6 PM on all the 7 days of week as per the convenience of the consumers.
- 7.1.20** The bidder shall not at any time do, cause or permit such activity on the site or do anything, which shall cause unnecessary disturbance or inconvenience to the consumer, tenants or occupants of other properties and to the public in general.
- 7.1.21** If not already established, the Bidder shall be required to establish its sales/service center in Thane immediately after the award of the work. If not already comprised in his service center, a Lab Test Bench shall be established in Thane within 2 months from the starting date of the contract. The Bidder shall set up a test bench to carry out minor repairs and to conduct accuracy test. Water Meter Test Bench is to be designed for measuring the accuracy and pressure losses of water meters of Dia. 15 mm - 40 mm in the premises of the Bidder's sales/service center. The service center will continue to be maintained throughout the term of the Contract including maintenance period and it shall be equipped to carry out the required functions for installation, maintenance including calibrations and tests for ascertaining the accuracy of the meters, replacement/repair and stocking of spares, and any other obligations prescribed by the Contract. Proper record will be maintained for the

meters tested / repaired in the service center workshop. All the receipt of supply & subsequent issue of meters shall be under the supervision of the Engineer-In-Charge.

- 7.1.22** The bidder shall ensure adequate arrangements/availability of water for construction & drinking purposes before start of work. In case water is provided from TMC distribution network, it will be a metered connection under commercial category for drinking purposes only. Necessary piping work shall be done by the bidder at its own cost.
- 7.1.23** The bidder shall provide guarantee against all manufacturing defects for the supplied and installed equipment as mentioned in technical specifications. The 10 years period shall be reckoned from the date of issue of the certificate stating the successful commissioning of the meters in lots of 5000 nos. including testing of AMR system.
- 7.1.24** The bidder shall be responsible for maintain and repair the system during the guarantee period as mentioned in technical specifications. The maintenance shall include costs of all material required for repairs or replacement of meter with all labor required for removing of defective meter and fixing of tested meter and regular maintenance of all meters fixed, annual cleaning of Woltmann meters' strainers, cleaning of dial to keep reading easily readable, attending leakages from joints on either side of meter, etc. During the Guarantee period if any meter becomes defective or not found as per specification, the same shall be repaired/replaced free of cost by the Bidder.
- 7.1.25** If the meter is found stolen, the same will not be covered under guarantee of the Bidder.
- 7.1.26** Complaints regarding abnormal readings will also be treated as defective meters unless proved otherwise by conducting field test within consumer premises. The meter shall be tested on complaint & if found defective showing incorrect reading shall be treated as defective meter. The Bidder has to arrange for the replacement of such water meters with duly tested meters.
- 7.1.27** The bidder shall keep sufficient stock of all consumable spares and tested meters during guarantee period and will maintain adequate infrastructure in Thane for repairs of water meters supplied under the contract. The Bidder shall be equipped with all the tools, spares and personnel for carrying out the repairs & replacement. The work force engaged by the Bidder for the installation / inspection at site shall wear uniform displaying Bidder's logo & ID card for each person. The Bidder, within two months from starting date of contract, shall set up its establishments in Thane for efficient maintenance of supplied meters.
- 7.1.28** A deduction of INR 100/- (One Hundred rupees only) per reading in each billing cycle shall be made for the number of readings not collected/taken exceeding 0.5% of the readable meters.

- 7.1.29** The defective meter will be removed and new tested meter would be installed immediately within 1 day after intimation by TMC. However, the upper limit should not be more than three days failing which a penalty of INR 10/- per meter per day of delay shall be levied and recovered from the Bidder. If quantity of defective meters supplied by the Bidder exceeds 5% of the total quantity supplied at any point of time, the defective meters shall be replaced at site and not repaired. Above penalty is over and above the compensation defined for delay in completing the awarded work within stipulated completion period. The bidder may take defective meters to his work place to rectify the defect for subsequent use.
- 7.1.30** The bidder shall keep a sufficient buffer stock of new meters for the purpose of replacement of out of order / damaged meters. In case the quantity of defective meters requiring replacement is in excess of 5% of the supplied quantity at any stage, then the 20% value of security deposited will be forfeited.
- 7.1.31** If in case the meter is damaged beyond repairs the Bidder shall first get it verified by TMC before replacing the meter.
- 7.1.32** The bidder shall appoint a full-fledged team of skilled technicians, tools & mobile van to attend and resolve the customer complaints of urgent nature viz. leakage from the body of meter & fittings, blockage of strainer of the meter, within 24 hours irrespective of any holiday. The Bidder will provide a help line number for contact and registration of complaints from the consumers. GPS mapping of installed meters will also in the scope of bidders for route management and other requirement during maintenance period.
- 7.1.33** The bidder will be responsible for taking readings of AMR water meters when required, and uploading the reading data in the Computer at the Central Control Room for further processing and analysis specified by TMC. The bidder shall collect the data from AMR water meters. The remote P.C. in which the data will be stored shall have the requisite software to read the data stored on the pen drives. The remote PC shall also have the requisite software to cover these main functions:
- 7.1.33.1 Database of the consumers in each Water supply zone
 - 7.1.33.2 Database for the information on the O&M carried out in each Water supply zone
 - 7.1.33.3 Compile the data per Water supply zone and bring all the data concerning that Water supply zone together at the same time
- 7.1.34** The bidder shall establish the metrological verifications system i.e. test set up which will work on gravimetric method.
- 7.1.35** The test setup shall be designed for testing of Accuracy (Qmin, Qt, Qn & Qmax), Pressure loss & Pressure tightness of water meter.

7.1.36 The test setups shall be for accuracy testing of 15, 20, 25, 40 & 50 mm sizes of water meters.

7.1.37 The test setup shall be designed as per the conditions mentioned in the tender.

7.1.38 The bidder shall comprehensively maintain all the test setups & all the equipment's of meter test setup of 15, 20, 25, 40 & 50 mm sizes for the period of 10 years.

7.1.39 Also the bidder shall obtain calibration certificates as per requirement for all the instruments of all test setups during the said 10 years, from the FCRI laboratory only.

7.1.40 Each water meter test setup shall be capable to test the following tests :-

- i) Accuracy of the water meter at four flows rates i.e. Minimum flow (Q_{min}), Transitional flow (Q_t), Nominal flow (Q_n) and Maximum flow (Q_{max}).
- ii) Pressure loss testing.
- iii) Hydrostatic pressure test.

7.1.41 Each water meter test setup shall be installed & commissioned after obtaining site clearance from TMC and approval of the line diagram / flow chart of the test setup. This line diagram / flow chart will contain the detailed floor plan with dimensions, positioning of various valves, equipment's, measuring apparatus, instruments & flow control systems, central control panel, pipe work and software etc. TMC reserves the right to inspect the test setup at manufacturer's works for evaluation purpose, before opening of price bid. The decision for such evaluation will be final & binding on the bidder.

7.1.42 The bidder shall submit the following listed documents for each size of test setup i. e. for 15mm, 20mm, 25mm, 40mm & 50mm, along with the bid.

- i) The size wise capacity of test setup i.e. number of meters installed for accuracy testing at one time.
- ii) Line diagram / floor plan with positioning of pump, motor, meter under test, pipe work, test bed, apparatus / instruments & valves etc, for the each size test setup. Electrical points, water inlet & outlet, etc.
- iii) The space required for total installation & commissioning of the each test setup.
- iv) List of equipment's / measurement apparatus / instruments, etc. used in the test setup with its capacity, such as :
 - Electrical pump & motor
 - Central control panel
 - Water Storage & collection tank.

- Air compressor,
- Pipe Work.
- Pressure gauge.
- Reference devices, etc.

7.2 Consumer Survey & Network Digitization

7.2.1 Scope and expected results: Consumer Survey

The scope includes carrying out Consumer survey of consumers in the implementation area as per the consumer survey form pre-approved from the Employer/ Engineer in charge.

The expected results from the proposed consumer's survey will be of great importance for the success of the Thane project implementation, since they will provide essential information needed prior to enter the implementation stage, as illustrated in the following. The objectives of the consumer survey are:

- To define with great accuracy the number of consumer meters, for the different sizes to be installed in the town, and their spatial distribution within the distribution system. This information will be essential to properly plan the consumer metering component of the project;
- To provide the basic information for setting up a preliminary database of the water consumers;
- To accurately know the people distribution on the territory, which is important for hydraulic modelling calibration;
- To attribute the appropriate consumer classification to each connection (domestic, commercial, education, industrial etc.);
- To identify the water connections that have to complete the registration process;
- To collect the GPS coordinates, present water consumption and other physical data related to all the connection points in the network. This information shall be transferred on GIS and available for various planning scopes;
- To know the consumers satisfaction level about the present water supply service;
- To know the consumers expectations for an improved service (24x7 availability of water, better water quality)
- To provide a sound database for TMC for estimating the revenues related to the tariff structure to be adopted for the different categories of users: residential, commercial, industrial and institutional users.

7.2.2 Methodology of the users survey

The consumer survey shall cover the entire TMC service area reaching all the household and consumers including residential, commercial (hotels, shops, offices, industrial plants laboratories workshops etc.) institutions such as (schools, hostels, bus stand, railways, government Offices, Hospitals), and stand posts.

The following data shall be collected through the survey:

- Identification,
- Details of the house or building (nos. of flats, nos. of rooms, nos. of residents, etc.),
- Type of connection (classification, size, if metered or not),
- Availability of water tanks and flow control devices;
- Present water consumption and water charges,
- Level of satisfaction on the service (water quantity, quality, pressure etc.)
- Details of Flat and on the residents (house of flat size, family size, socio economic status of the household head, education, occupation, income level),
- Details on the connection (size, metered or not, GPS of the tapping, age and condition of connection piping);

A database will be created on suitable software such as Access, Oracle or equivalent. In addition all data will be filed on a GIS platform in the form of shape and geo- database.

The time required for carrying out such a survey is estimated to be of 10-12 months. It would be mandatory that the survey shall be carried out before fixing the domestic meter.

The format proposed of the collection of the data shall be discussed and agreed with TMC and the approved one shall be included as part of the Tender Documents for the survey.

7.2.3 Scope for Network survey and digitalization of distribution Network

The scope includes collection of DGPS points of important level marks, geo-referencing of satellite image, creation of base map by interpretation and digitization from the satellite data, creating road network, rivers, water bodies, building, land use etc. in different layer, cleaning of digitized map, topology building overlaying of water supply features such as pipes, nodes, valves, tanks, reservoir, pump etc. Base map will be created by Interpretation and digitization from the rectified satellite data. Following layers will be captured

<ul style="list-style-type: none"> • Transport Network <ul style="list-style-type: none"> - Rail - Rail Bridge - Major Road - Road Centre line - Minor Road (Lane) - Medians / Dividers - Road Medians/ Dividers - Flyover/ level crossing - Bridges - Traffic Islands - Footpaths - Air Strips - Airways Terminal Connecting Road 	<ul style="list-style-type: none"> • Hydrology <ul style="list-style-type: none"> - Double line river - Stream (Single line river) - Canal - Drains - Culverts - Irrigation structure - Embankments - Lakes - Reservoirs - Island - Wells - Dams/ Structures - Water Supply System Network
<ul style="list-style-type: none"> • Building <ul style="list-style-type: none"> - Unclassified buildings - Industrial Buildings - Public Buildings - Religious Places - Historic Places - Railway Station - Bus stand - Building in air ports - Stadium - Golf course - Play Grounds - Overhead Tanks - Slum Area 	<ul style="list-style-type: none"> • Land Use <ul style="list-style-type: none"> - Open space - Rocky Areas - Parks - Cluster of Tress - Cremation Grounds
<ul style="list-style-type: none"> • Administration <ul style="list-style-type: none"> - Zones - Wards 	<ul style="list-style-type: none"> • Utility <ul style="list-style-type: none"> - 1) Transmission Tower - 2) Communication Tower
<ul style="list-style-type: none"> • Others <ul style="list-style-type: none"> Others features identified such as building fence 	

The updated base & satellite image of the TMC area available with TMC will be provided, however bidder has to check, verify in field, rectify and modify as per the actual survey carried out. Bidder has to make assure that the water supply network updated in the base map provided by the TMC need to be verified and rectified at actual based on the latest network survey.

7.2.1 Methodology for Network survey and digitalization of distribution Network

This activity includes following

- 1 Acquiring legal satellite image of the Area of interest
- 2 Digitization of satellite image
- 3 Geo-referencing of satellite
- 4 Creation of base map
- 5 Map Cleanup

7.3 Consumer Awareness Program

7.3.1 Scopes and Objectives

A key factor for the success of any major infrastructure project is the consensus of the concerned community.

The achievement of consensus should be pursued through a determined effort to inform the population on the project, on its benefits as well as on the various aspects related to the introduction of the water consumption metering. It is important that the people are made aware that a rational use of the water will not imply an increase of the water charges even after the full implementation of the project.

In addition to that, studies conducted in many cities reveal that level of awareness also influence positively the willingness to pay of the consumers and, hence, the cost recovery and the ability of the water utility to cover the water production and distribution costs.

Finally it should also point out that an effective awareness program may also provide the water utility with essential information on various aspects such as:

- The ability and willingness to pay,
- The people perception about the quality of the water service that they are receiving and the complaints on the deficiencies of the service,
- The people expectations about the improvements determined by the new system.

The above mentioned information will be very useful for the Thane Municipal Corporation in order to properly address the communication to the community, to correct the distribution deficiencies with improved O&M, to refine the strategy for the gradual adjustments of tariffs and to put in place appropriate measures able to improve the business-consumer relations.

In conclusion, to maintain effective consumer awareness programs is an effective tool for achieving various objectives such as to improve the level of satisfaction of the consumers, to raise the quality of service, to develop and apply the appropriate water tariff and finally, to improve the socioeconomic and financial sustainability of the project.

7.3.2 Methodology

As already mentioned, a detailed Consumer Survey is planned to be carried out prior to the implementation of the project with aim to providing full information about the socio-economic conditions, the water consumption and the quality of the water supply in all areas of the town covering all categories of consumers in Slums, High Rise Buildings, Bungalows, Industrial and Commercial areas in Thane City.

The analysis of said survey results will allow to formulate the awareness program considering the best communication strategy in order to reach the various categories of users with the most appropriate communication means. The program shall be carried out through seminars, workshops, television, radio, newspapers, magazines, journals, posters, and leaflets. Moreover, road shows, short video clips played on TV and in public places and workshops shall be organized for each area.

The awareness and willingness to pay will be measured using tailored questionnaires to be distributed to representative samples of the users. The questionnaires will be delivered to the households and the responses will then be collected after two weeks. Questionnaires will also be distributed and collected at the end of each seminar in order to determine the levels of awareness and the perception of the participants on the various issues.

The Awareness Program shall also be aimed at disseminating the correct information on the way in which the water is produced, rendered potable and distributed, on the correct use of the water in order to avoid water wastage and the related un-necessary extra-water charges, the health benefits related to the utilization of potable water.

The provision of information to the consumers about, for example, the cost of pumping, treatment, supply and their relation to the water tariff can make consumers appreciate the water issues such as the quality of water, billing system, maintenance of lines, disconnection and reconnection problems and the price of water. The awareness should also make consumers aware on the unavoidable needs of interventions for maintenance that may determine limited interruptions of the water distribution.

The questionnaires will also provide information on the people perception about the following aspects of the water supply service such as the level of satisfaction on the quality of the service, and the complaints on present deficiencies in the quality of quantity of water, in the pressure, in the billing system or in the collection of payments.

7.3.3 Proposed Implementation of Awareness Program

The Awareness Program, in order to achieve the expected results, must be carried out at different stages along the project cycle and then during the operation period. The following campaigns are proposed:

- Prior to start the project implementation. This will provide the correct information on the proposed upgrading of the water supply infrastructure and on the introduction of the water consumption metering system and on the water charges related to the measured water consumption,
- At the start of the operation of the constructed system. This will be important to monitor the people appreciation on the improvement of the water service, highlight possible deficiencies to be corrected, measure the level of acceptance of the new billing and payment method
- In the second half of the 10 years O&M period, in order to monitor if the distribution has improved and if the people has adapted to the 24x7 modality of water distribution and to the new water charges. It will also highlight the level of performance of the Contractor in the O&M of the system under his competence.
- During the Master Plan Period with the suggested interval of 5 years between one campaign and the next one.

7.4 House Service Connection

Replacement of all existing house service connection with MDPE/HDPE pipes.

7.5 Operation & Maintenance

Operation & Maintenance of Water meters and allied infrastructure for period of 7 (Seven) years.

8. PROPOSE TIMELINES

The project is intended to be implemented in 3 years followed by 7 years of Operation & Maintenance as per the schedule mentioned below

Sr. No.	Project Stage	Description
1	1st Year	100% non-domestic and bulk consumer metering for the proposed Package.
		Consumer Survey & Consumer Awareness in the proposed Package.
2	2nd Year	50% domestic consumers metering for proposed Package
		O & M of earlier installed meters & Consumer Awareness in the proposed Package.
3	3rd Year	50% domestic consumers metering for proposed Package
		O & M of earlier installed meters & Consumer Awareness in the proposed Package.
4	4th Year onwards till 10th Year	O & M of earlier installed meters & Consumer Awareness in the proposed Package.

9. GENERAL CONDITIONS OF CONTRACT

9.1 DEFINITION OF TERMS

- 1 'Employer' shall mean the client on whose behalf the enquiry is issued by the Engineer-In-Charge and shall include his successors and assigns, as well as his authority officers/representatives.
- 2 'Bidder' shall mean the firm/ party who quote against an enquiry.
- 3 "Manufacturer" refers to a person or firm who is the producer and furnisher of the Material or Designer and Fabricator of equipment as per the Specifications, who in turn shall submit the same to the Employer under the 'Contract'. The term "Meter Manufacturer" here in case should be read and treated as "Water Meter Manufacturer"
- 4 'Inspector' shall mean the authorized representatives appointed by the Employer for purpose of inspection of Materials/Equipment/Works.
- 5 'Project' shall mean the project specified under Project Information in the 'Tender'.
- 6 'Site' shall mean the actual place of the proposed ' project' as detailed in the 'Specification' or other place where work has to be executed under the Contract.
- 7 'Month' shall mean calendar month.
- 8 'Specification' shall mean collectively the complete document including covering letter issued by the Employer for inviting bids and such Amendments, Revisions, Deletions or Additions, as may be made subsequently in writing pertaining to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under this 'Contract'. If any particular work or part or portion thereof is not covered by the 'Specification', the specification for such work shall mean the relevant Bureau of Indian Standards specification for or relative to the particular work or part or portion thereof shall mean standard engineering practice approved in writing by the Engineer-In-Charge with or without modification
- 9 'Bid' shall mean the proposal/document that the Bidder submits in the requested and specified form in the 'specification'.
- 10 'Plant' or 'Equipment' and 'works' shall mean respectively the goods to be supplied and services to be provided by the Bidder under the 'Contract'.
- 11 "Contract" means the Conditions of Contract, the Employer's Requirements, the Tender, the Bidder's Proposal, the Bill of Quantities, the Letter of Acceptance (Work Order), the Contract Agreement (if Completed) and such further documents as may be expressly incorporated in the Letter of Acceptance or Contract Agreement (if completed).

- 12 For the purposes of defining the different activities and obligations under the Contract, the Contract will be comprised of a “**Works Contract**” and an “**O&M Contract**”, as defined in the following Clause 13 & Clause 14 below; such definitions are for convenience only and shall not affect the rights or obligations of the Employer or the Bidder under the Contract.
- 13 “**Works Contract**” means that portion of the Contract that relates to the Providing, Constructing, Supplying, Erecting, Testing & Commissioning of the Works and the remedying of any defects, but excluding Operation and Maintenance of the facilities for the Operation and Maintenance Period, in accordance with the provisions of the Contract.
- 14 “**O & M Contract**” means that portion of the Contract that relates to the Operation and Maintenance of the facilities for the Operation and Maintenance Period, as defined in the Tender Data Sheet, but excluding the portion of Providing, Constructing, Supplying, Erecting, Testing & Commissioning of the Works and the remedying of any defects, in accordance with the provisions of the Contract.
- 15 “**Time for Completion**” means the time for completing the Works, as stated in the Tender Data Sheet (with any extension under clauses 1.5, of the General Conditions of contract calculated from the Effective Date of Contract. The Bidder will be required to take all possible measures to ensure that the Works are executed in conformity with the Technical Specifications, and that the whole of the Works are completed within the scheduled Time for Completion. The whole of the Works shall be completed and shall have passed the Tests on Completion, and successful installation within the Time for Completion of the Works as specified in the Tender Data Sheet. The Completion Certificate will be issued upon successful installation & inspection of the installation. After receiving the Completion Certificate, Operation and Maintenance of the facilities shall be carried out for the period as specified in the Tender Data Sheet.
- 16 “**Time for Operation and Maintenance**” means the time for operating and maintaining the constructed facilities as stated in the Tender Data Sheet, calculated from the date upon which the Works have been completed, commissioned and as certified by the Engineer-In-Charge.
- 17 “**Contract price**” shall mean the price agreed and mentioned in the Contract Agreement.
- 18 “**Effective Date of Contract**” shall mean the Calendar date on which Employer have issued to the Bidder the ‘Letter of Acceptance/Work Order’ or any other date agreed between the Employer and the Bidder, specifically mentioned in the Letter of Intent/Contract.
- 19 “**Contract period**” shall mean the period during which the ‘Contract’ shall be executed as agreed between Bidder and Employer in the ‘Contract’ and it starts with the Effective date of Contract.

- 20 **Guarantee period** shall mean the period during which the 'Plant or Equipment' shall give the same performance as guaranteed by the Bidder in the Schedule of guarantee in the 'Specification'.
- 21 **'Approved'** and **'Approval'** where used in the 'Specification' shall mean, respectively, approved by and approval of the Employer or the Engineer-in-Charge.
- 22 When the works' **Approved**, **'Subject to Approval'**, **'Equal to '**, **'Proper'**, **'Requested'**, **'As directed'**, **'Where directed'**, **'When directed'**, **'determined By'**, **'accepted'**, **'Permitted'**, or words and phrases of like import are used, the approval judgment, direction etc., is understood to be a function of the Employer or the Engineer-in-Charge.
- 23 **Engineer-In-Charge**' instructions shall mean details, directions and explanations issued by the Engineer-in-Charge in writing, and drawings (s) and /or oral instructions to be ratified in writing within 48 (Forty Eight) hours from time to time during the contract period.
- 24 **'Writing'** shall include any manuscript, typewritten or printed statement under or over signature and /or seal as the case may be.
- 25 **'Notice in writing'** or **'Written Notice'** shall mean a notice in written, typed or printed characters sent (unless delivered personally) or otherwise proved to have been received by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- 26 **'Bidder's Works'** shall mean and include the land and other places which are used by the BIDDER for the manufacture of 'Equipment' for performing of the 'Works' **'Commercial Use'** shall mean that use of the 'Equipment' or 'Work' which the 'Contract' contemplates or that for which the 'Contract' contemplates or that for which 'Equipment' or 'Work' is commercially capable.
- 27 **'Drawings'** shall mean all.
- i. Drawings furnished by the Employer or the Engineer-in-Charge as a basis for proposals
 - ii. Supplementary drawings furnished by the Employer or the Engineer-in-Charge to clarify and to define in greater detail the intend of the 'Contract'
 - iii. Drawings submitted by the Bidder with his proposal provided such drawings are acceptable to the Employer or the Engineer-in-Charge.
 - iv. Drawings furnished by the Employer or the Engineer-in-Charge to the Bidder during the progress of the work; and

- v. Engineering data and drawings submitted by the Bidder during the progress of the work provided the same are prepared based on the accepted designs, such drawings are acceptable to the Engineer-in-Charge.

9.2 GENERAL CONDITIONS OF CONTRACT

9.2.1 Definition of terms

The words and terms specified in this section or pronouns in their stead, shall, for the purpose of this contract have the meanings as given in the previous section.

9.2.2 Earnest money and Performance Security deposit

Earnest money deposit shall be furnished by the Bidder and Performance security deposit shall be furnished by the bidder as stipulated in Tender, No interest will be payable on the Earnest money deposit or the Performance security deposit, if any.

9.2.3 Mode of payments –

9.2.3.1 As per details mentioned in the Special Conditions of the Contract.

9.2.3.2 The bidder shall generally submit his R.A. bills once in a month. If the progress of work is more during a month and eligible for the stage of payment, more bills can be submitted in a month.

9.2.3.3 The bidder shall submit the running Bills to the Engineer-In-Charge and the Engineer-In-Charge will check the bill & recommend to the Employer for further process. The Engineer-In-Charge shall verify & record the bill and send the same to the account department for payment.

9.2.3.4 Detail activity chart and procurement schedule shall be prepared by the bidder and shall be got approved from the Engineer-In-Charge. The dates of receipt of mechanical and electrical equipment / material on site shall be so adjusted that the related civil work would be ready for installation /erection on receipt of equipment/ material on site. In addition to above the bidder will have to procure material/equipment on the site only after prior approval of the Engineer-In-Charge. The payment against receipt of equipment / material shall not be due to the bidder before the scheduled and approved date of receipt of equipment / material on site.

9.2.3.5 EMD amount of 1% will be converted into part of security deposit. Balance 4% of security deposit shall be deducted from running account bills such that on completion of 50% of the work security deposit is made up.

9.2.3.6 The successful Bidder shall register with Thane Municipal Corporation, for applicable taxes before Work Order is issued.

9.2.3.7 Deductions towards Income Tax, Works contract tax, cess and other statutory recoveries shall be made from RA bills at the rates applicable from time to time.

9.2.3.8 All the payments shall be made by TMC, in the form of crossed account payee cheque drawn on banks in Thane or RTGS mode.

9.2.4 Raising of funds for the work

9.2.4.1 The bidder shall be solely responsible for raising of funds and making available money for carrying out the work. The bidder will arrange cash flow during the entire period of the work to suit the schedule.

9.2.4.2 TMC shall not transfer any legal rights either temporarily or permanently to the Bidder/ bidder or his funding / financing agency.

9.2.4.3 TMC shall not furnish to the Bidder/ Bidder or his funding / financing agency any document which is intended as security or assurance for the purpose of raising of funds.

9.2.5 Delay and extensions of time

9.2.5.1 The time allowed for carrying out these work shall be strictly observed by the bidder and shall be deemed to be of essence. The bidder will be allowed to enter the site on the date of commencement and he shall forthwith begin the work.

9.2.5.2 The bidder agrees that the work shall be commenced and carried on at such points and in order of precedence and at such times and seasons as may be directed by the Engineer-In-Charge in accordance with the schedule of completion of work. The bidder shall familiarize himself with the site and rights of way, local conditions and with all the circumstances which may or are likely to affect the performance and completion of work and he shall account for such conditions. The progress of work shall be checked at regular monthly intervals and the percentage progress shall be commensurate with the time elapsed.

9.2.5.3 If the Bidder desires extension of time for completion of work on the grounds of hindrance or any other ground, he shall apply in writing within 7 days of the date of hindrance to the Engineer-In-Charge. The application shall contain documentation for proof and justification of extension. Bidder shall be responsible for the consequences arising out of such extension.

9.2.5.4 No necessity for an extension of time is anticipated but if untoward or extraordinary circumstances should arise beyond the control of the bidder, which in the opinion of the Engineer-In-Charge/ Employer should entitle the bidder to a reasonable extension of time, such extension may be granted but will not release the bidder from any of his obligations. For the purpose of this clause, untoward or extraordinary circumstances are defined separately in this section. Under such circumstance only, extension of time may

be granted but the bidder shall not be entitled to any additional compensation. In case of strike or lockout the bidder shall, as soon as possible, give written notice to the Engineer-In-Charge/ Employer, but the bidder shall constantly endeavor to prevent delay and do all that may reasonably be required to proceed with the work.

9.2.5.5 The Engineer-In-Charge/ Employer shall have the right of discontinuance of the work, in whole or in part, for such time as may be necessary, if external conditions make it desirable to do so, in order that the works shall be well and properly executed. In such cases, the bidder shall have no claim for idle time, etc. However, the Engineer-In-Charge may grant extension of reasonable time for completion of contract in such cases.

9.2.6 Liquidated damage for delay

9.2.6.1 In the event of the bidder failing to comply with the approved time schedule, he shall be liable to pay as damages an amount as indicated in Schedule of Liquidated Damages given in this document.

9.2.6.2 The Employer may without prejudices to any other method of recovery, deduct the amount of such damages from any money due to the Bidder. In the event of extension of time being granted by Engineer-In-Charge/ Employer in writing, such damages will become applicable after expiry of such extended period.

9.2.6.3 All sums payable by way of liquidity damages, shall be considered as reasonable compensation to be applied to the use of the Employer without reference to the actual loss or damage sustained.

9.2.7 Infringement of patents

9.2.7.1 The bidder agrees that he shall assume all liabilities and fully indemnify and save harmless, the Employer, his successors or assigns, from and against all suits, claims, proceedings, damages, losses, expenses, fees, royalties arising from any infringement, real or claimed, of any patent or any articles, machine manufacture, structure, composition, arrangement, improvement design, device, methods or progress embodied or used in performance of the contract. The Employer and his successors and assigns shall give written notice of 7 days of all such claim and patent infringements suits or proceedings instituted against him to the bidder, who will defend the same and will give the bidder authority, assistance and all available information to enable him to do so.

9.2.8 Assignment

9.2.8.1 The whole of the work included in this contract shall be executed by the bidder and the bidder shall not directly or indirectly transfer, assign or sublet the contract or any part thereof, nor shall he take new partner without consent of the Employer.

9.2.9 Changes in constitution

9.2.9.1 Where the bidder is a partnership firm or an individual or a Hindu undivided family business concern, any change in the constitution of the firm or ownership or partnership shall be on previous approval in writing by the Employer.

9.2.10 Damages to persons & property and insurance in respect of

9.2.10.1 The bidder shall be responsible for all injuries to persons, animals or things, and for all damage to property which may arise from operations or neglect of himself or of any of his approved sub-contractors and their employees, whether such injury or damage arises from carelessness, accident or any other causes whatever in any way connected with the carrying out of this contract. This clause shall be held to include, inter-alia, any damage to buildings; roads, footpaths, bridges or ways, equipment, pipes, cable, etc. within or outside the project site, of the Employer or third parties and the work forming subject of this contract by frost, rain or any other inclemency of weather. The bidder shall indemnify and hold the Employer harmless in respect of all and any expenses arising from any such injury or damage as aforesaid and also in respect of any award of compensation of damage consequent upon such claim.

9.2.10.2 The bidder shall reinstate at his cost all damages of every sort mentioned above, so as to deliver the whole of contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

9.2.10.3 The bidder shall indemnify the Employer against all claims which may be made against the Employer by any member of public or other third party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his expense arrange to effect and maintain until virtual completion of the contract, with an approved nationalized insurance bidder, a policy of insurance in the joint names of the Employer and the bidder against such risks and he shall deposit such policy or policies with Engineer-In-Charge from time to time during the currency of the contract. The bidder shall indemnify the Employer against all claims which may be made upon the Employer under any statute in force during currency of this contract or at common law in respect of any employee of the bidder and/ or his sub- bidder. The bidder shall be responsible for anything, which may be excluded from the above referred insurance policies and also for all other damage to any property arising out of and incidental to the negligent or defective execution of works under this contract.

9.2.10.4 The bidder shall also indemnify the Employer in respect of any cost, charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation of damage arising there from.

9.2.10.5 The Employer/ Engineer-In-Charge shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation cost, charges and expenses arising or accruing

from or in respect of any such claim or damage from any sum due or to become due to the bidder.

9.2.10.6 The Employer /Engineer-In-Charge shall not be responsible or not be held liable for any damage to person or property consequent upon use, misuse or failure of any construction tools and equipment used by the bidder or any of his sub-contractor even though such construction tools and equipment be furnished, rented or loaned to him by the Employer. The acceptance and / or use of any such tools and / or equipment by the bidder / sub-contractor shall be constructed to mean that the bidder accepts all responsibility for and agrees to indemnify and save harmless the Employer / Engineer-In-Charge from any and all claims for said damages resulting from said, misuse or failure of such tools and equipment for which the Employer may be liable.

9.2.11 Damage insurance

9.2.11.1 Unless otherwise instructed by the Engineer-In-Charge, the bidder shall on signing the contract insure in India the works and keep them insured until the completion of contract against loss or damages by fire or any other hazard with a bidder to be approved by the Engineer-In-Charge, in the joint names of the Employer and the bidder for such amount and for any further sum if called upon to do so by the Engineer-In-Charge, the premium of such further sum being allowed to the bidder as an authorized extra. Such policy shall cover the property of the Employer only and shall not cover any property of the bidder or any of his approved sub- bidder or employee. The policy should be taken from India with any of the Indian Insurance Company Only. The bidder shall deposit the policy and receipts of premiums with the Engineer-In-Charge within twenty one days from the date of signing the contract otherwise instructed by the Engineer-In-Charge. In default thereof, the Employer / Engineer-In-Charge on his behalf may so insure and may deduct the premiums from any money due or may become due to the bidder. The bidder shall, as soon as the claim under the policy is settled, or the work reinstated by the insurance office, should they elect to do so, proceed with all due diligence with completion of works in the same manner as though the fire or any hazard had not occurred and in all respects under the same conditions of contract. In such an event, the bidder shall be entitled to such extension of time as the Engineer-In-Charge may deem fit.

9.2.11.2 Notwithstanding the above, the bidder shall provide adequate portable fire extinguishers in his work area and take all adequate precautions against fire hazard and train his supervisors/ workmen regularly in firefighting techniques.

9.2.11.3 In the event of occurrence of any fire attributable in the opinion of the Employer/ Engineer-In-Charge to the bidder's negligence, no extension of time will be granted

9.2.12 Suspension

9.2.12.1 If the bidder, except on account of any legal restraint upon the Employer, preventing the continuance of work shall suspend work or in the opinion of the Engineer-In-Charge shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default in respect or scope of contract, the Employer/ Engineer-In Charge shall have power to give notice in writing to the bidder requiring that the work be proceeded within a reasonable manner and with reasonable dispatch. Such notice issued to him by the Employer/ Engineer-In-Charge shall purpose to be a notice under this clause. After such notice is given, the bidder shall not be at liberty to remove from the site of works any plant or materials belonging to him which shall have been placed thereon for the purpose of works and the Employer shall have a lien upon all such plants and materials to subsist from the date of such notice until the same is complied with. If the bidder fails to proceed with the works as therein prescribed within 7 days, the Employer may proceed as prescribed.

9.2.13 Termination of contract by Employer

9.2.13.1 If the bidder (individual or firm) commit any Act of Insolvency or shall be judged as insolvent, or shall make an assignment or compensation for the greater part in number or amount of his creditors, or shall enter into a Deed of Assignment with his creditors, or shall have an order made against him or pass an effective winding up resolution either compulsorily or subject to the supervision of court or voluntary, or if the official assignee of the bidder shall repudiate the contract, or if the official assignee or liquidator in any such winding up shall be unable, within seven days after notice to him requiring to do so, to show to the reasonable satisfaction of the Engineer-In-Charge that he is able to carry out and fulfill the contract and if required, give security therefore, or if the bidder shall suffer any payment under this contract to be attached by or on behalf of any creditors of the bidder, or if the bidder shall charge or encumber this contract for any payment due or which may become due to the bidder there under, or if the Engineer-In-Charge shall certify in writing that in his opinion the bidder:

- i) Has abandoned the contract, or
- ii) Has failed to commence the works. Or has without any lawful excuse under these conditions suspended the progress of the works for seven days after receiving from the Engineer-In-Charge written notice to proceed with the work. or
- iii) Has failed to proceed with the work with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- iv) Has failed to remove materials from the site or to pull down and replace works within seven days after receiving from the Engineer-In- Charge written notice that the said

materials or work were condemned and rejected by the Engineer-In-Charge under these conditions, or

- v) Has neglected or failed persistently to observe and perform all or any of the acts matters or things required by this contract to be observed and performed by the bidder seven days after written notice shall have been given to the bidder requiring him to observe or perform the same, or
- vi) Has to the detriment of good workmanship or in defiance of Engineer-In-Charge's instructions to the contrary sublet any part of the contract.

9.2.13.2 In any of the above said circumstances, the Employer/ Engineer-In-Charge may, notwithstanding any previous waiver, after giving seven days' notice in writing to the bidder, terminate the contract but without thereby affecting the powers of the Engineer-In-Charge or the obligations and liabilities of the bidder, the whole of which shall continue to be in force as full as if the contract is not so terminated and as if the works subsequently executed had been executed by or on behalf of the bidder. Further, the Employer/ Engineer-In-Charge by his agents servants may enter upon and take possession of the works and all plants, tools, scaffoldings, sheds, machinery, power, utensils and materials laying upon the premises or adjoining roads and property and use the same as his own property or may employ the same bidder in carrying on and completing the works or by employing any other person or bidder to complete the works. The bidder shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other person or bidder employed for completing and furnishing or using the materials and plant for works.

9.2.13.3 When the works shall be completed, or as soon thereafter as convenient the Engineer-In-Charge shall give a notice in writing to the bidder to remove his surplus material and plant and should the bidder fail to do so within seven days after receipt thereof by him, the Employer may sell the same by public auction and shall give credit to the bidder for the amount so realized after deducting for the costs incurred by the Employer for the realization of proceeds. The Engineer-In-Charge shall thereafter, ascertain and certify in writing, what shall be due or payable to the bidder by the Employer for the value of the said plant and materials so taken possession by the Employer and the expense or loss the Employer shall have been put to in getting the works completed. The amount so certified as payable by the Employer to the bidder or by the bidder to the Employer shall thereupon be paid. The certificate of the Engineer- In-Charge shall be final and conclusive.

9.2.14 Laws

9.2.14.1 The contract shall be governed by the laws of the state for time being in force with the same force and effects as if incorporated in full into this document.

9.2.14.2 Should such conflicts require changes in the contract documents, the bidder shall promptly notify the Engineer-In-Charge. No proceedings relating to this contract shall be taken by the bidder in any court of law except in Thane.

9.2.15 Rates to include taxes

9.2.15.1 The amounts quoted by the bidder in Price schedule shall be inclusive of all material labour, plant and equipment, royalties, taxes to be levied by central/ state governments or any public bodies and everything necessary to complete the work satisfactorily and as per the work specifications. The price shall be firm and not subject to exchange, variations, labour conditions or any conditions whatsoever.

9.2.15.2 The bidder when called for by the Employer shall furnish detailed analysis in support of price quoted by him. The Employer reserve the right to use the analysis supplied in settling, any deviations or claims arising out of this contract.

9.2.16 Engineer-In-Charge cannot waive obligations

9.2.16.1 Neither the Engineer-In-Charge nor any of his assistants or agents shall have any power to waive any of the obligations of the bidder and for his performing good work as herein described. Regarding any disagreement pertaining to Technical matters between the Engineer-In-Charge and the Bidder, The Superintending Engineer's, Water Supply Projects, decision in this regard will be final and binding to the Bidder.

9.2.16.2 Regarding any disagreement pertaining to financial matters between the Engineer-In-Charge and the Bidder, the decision of The Municipal Commissioner, Thane Municipal Corporation, in this regard will be final and binding to the Bidder.

9.2.17 Works party abandoned

9.2.17.1 If at any time after commencement of work, the Employer shall for any reason whatsoever, not require the whole work thereof as specified in the tender to be carried out, the Engineer-In-Charge shall give notice in writing of the fact to the bidder, who shall have no claim whatsoever to any payment of compensation on account of any profit or advantage which he may have derived from execution of the works in full but which did not derive in consequence of the full amount of work not having been carried out, neither shall he have any claim for compensation by reason of any change having been made in the original specifications, drawings, designs and instructions which shall involve any curtailment of work as originally completed.

9.2.17.2 The bidder shall be paid the charges on the cartage only if material actually brought to the site by the bidder and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof and taken back by the bidder, provided however, that the Engineer-In-Charge shall have in all such cases, the right to purchase these materials at their purchase price or at current local rates whichever may be less.

9.2.18 Bidder's address

9.2.18.1 Both the addresses appearing in the agreement and the bidder's office at or near the site of the works are hereby designated as places to either of which notices, letters or any other communication to the bidder may be mailed or delivered. The delivery at either of the above places or depositing in any postbox of any letter, notice or other communication addressed to the bidder, shall be deemed sufficient notice of service thereof upon the bidder and the date of such notice shall be the date of such delivery or depositing . The first named address may be changed at any time by an instrument in writing executed and acknowledged by the bidder and delivered to the Employer/ Engineer-In-Charge. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter or other communication upon the bidder personally.

9.2.19 Independent bidder

9.2.19.1 The bidder agrees to perform the contract as an independent bidder and not as an agent of any employee of the Employer.

9.2.20 No other understandings

9.2.20.1 There are no other understandings between the parties other than as set forth in the contract. All communications, either verbal or written, made prior to the date of the Contract are hereby aborted and withdrawn unless such communications are made part of the contract.

9.2.21 Disputes to be finally determined by the Engineer-In-Charge

9.2.21.1 The decision, opinion, certificate or valuation by the Engineer-In- Charge with respect to all or any of the matters under scope of contract and relevant clauses hereof (which matters are herein referred to as expected matters) shall be final and conclusive and binding on the bidder and shall be without appeal.

9.2.21.2 Any other decisions, opinion, direction, certificates or valuation of the Engineer-In-Charge or any refusal of the Engineer-In-Charge to give any of the same shall be subject to the right of arbitration.

9.2.22 Arbitration

9.2.22.1 In case any dispute or difference shall arise between the Employer or the Engineer-In-Charge on his behalf and the Bidder touching or concerning this contract or the construction, meaning, operation or effect thereof or any clause herein contained or as to the rights, duties or liabilities of the parties hereto respectively or of the Engineer-In-Charge under or by virtue of these presents or otherwise or touching the subject matter of these presents or arising out of or in relation thereto (except as to matters left to the

sole discretion of the Engineer-In-Charge) the same shall be referred to the arbitration of a single arbitrator. The only sole arbitrator shall be the Municipal Commissioner, Thane Municipal Corporation.

9.2.22.2 Work under the Contract shall, if reasonably possible, continue during the arbitration proceedings and no payments due or payable by the Employer shall be withheld on account of such proceedings & payment due to the Bidder will be made by the Employer under the advice from Engineer-In-Charge in writing.

9.2.22.3 The bidder shall carry out and complete the works in every respect in accordance with this Contract and in accordance with the directions and to the satisfaction of the Engineer-In-Charge. The Engineer-In Charge may in his absolute discretion from time to time issue further drawings and /or written instructions, details, directions and explanations which are hereafter collectively referred to as 'Engineer-In-Charge's Instructions' in regards to:

- i) The variation or modification of the design, quality or quantity of works or the omission or substitution of any work.
- ii) Any discrepancy in the drawings or between the Bill of Quantities and/or drawings and/or specification.
- iii) The removal from the site of any material brought thereon by the bidder and the substitution of any other materials there for.
- iv) The removal and/ or re- execution of any works executed by the bidder.
- v) The dismissal from the works of any persons employed thereupon.
- vi) The amending and making good of any defects.
- vii) The opening up for inspection of any work covered up.

9.2.22.4 The bidder shall forthwith comply with & duly execute any work comprised in such Engineer-In-Charge's instructions provided always that instructions, directions and explanations given to the Bidder or his superintendent upon the works by the Engineer-In-Charge shall, if involving a variation, have been confirmed in writing by the bidder within seven days and the Engineer-In-Charge's written approval obtained.

9.2.22.5 If compliance with the Engineer-In-Charge's instructions as aforesaid involves work beyond that contemplated by the contract, unless the same were issued owing to some breach of this contract by the bidder, the Employer shall pay to the bidder the prices for the extra item for said work, valued as hereinafter provided.

9.2.23 Extra Item

9.2.23.1 Items for which no rates are available in the Bill of Quantities, bidder shall inform Employer/Engineer-in-Charge of the same during the R.A. Bills submitted. The rate for extra items of works shall be fixed as per the prevailing practices of TMC.

9.2.24 Variation

9.2.24.1 The items indicated in the Bill of Quantities are the estimated Quantities and variation in the Quantities within +/-50% of that indicated shall be paid at the same price quoted by the Bidder. If the quantities exceeds by more than +/-50% of that indicated in the Bill of Quantities payment for the same shall be done as below.

9.2.24.2 This item will be treated as an Extra Item as will be paid as per the prevailing practices & rules of Thane Municipal Corporation.

9.2.25 Bidder informed – as to the conditions

9.2.25.1 The bidder shall inspect, examine and obtain all information and satisfy himself regarding all matter and things such as right of way, surface and sub surface water conditions to be encountered, the character of equipment and facilities needed for the execution of the work, the location and suitability of all construction materials, the quantities of various sections of the work, and local labour conditions, relating to the execution and maintenance of works to be carried out under the contract or any hindrances or interference to or with construction and maintenance of the works from any cause whatsoever including any other operation of works, which may or will be carried out or adjacent to the site of the works under the contract and shall make allowance for all such contingencies in the contract price and will not raise any claims or objections against the Employer in any of such matters as mentioned above.

9.2.25.2 The acceptance of the order or signature of the contract will be considered as evidence that such an examination was made and later claims for labour, equipment or materials required for difficulties encountered will not be allowed.

9.2.25.3 Any record of sub- surface condition, water records and other observation which may have been made by the Engineer-In-Charge/ Employer have been made with reasonable care and accuracy. Such records may be made, if available to the bidder for his information. If available, but there is no expressed or implied guarantee, as to neither the accuracy of the records nor any interpretation of them. The bidder shall recognize this and form his own opinion of the character of materials to be encountered or excavated, from an inspection of the ground and put his own interpretation on records.

9.2.25.4 The prices quoted by the bidder shall be based on his own knowledge and judgment of the conditions and hazards involved and not upon any information furnished by the Engineer-In-Charge / Employer.

9.2.26 Bidder to provide everything necessary

- 9.2.26.1 The bidder shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein, provided that the same can reasonably be inferred there from, and if the bidder finds any discrepancy therein shall refer the same immediately and in to the Engineer-In-Charge whose decision shall be final and binding on the parties.
- 9.2.26.2 The bidder shall supply, fix and maintain at his cost, during the execution of any works all the necessary centering, scaffolding, staging planking, timbering, strutting, shoring, pumping fencing, hoarding, watching and lighting by night as well as by day, required not only for the proper execution and protection of the said works, but also for the protection of the public and the safety of any adjacent roads, streets, cellars, walls, houses, buildings and all other erections, matters or things, and the bidder shall take out and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring etc. as occasion shall require or when ordered to do so and shall fully reinstate and make good all matters and things disturbed during the execution of the works to the satisfaction of the Engineer-In-Charge. The Bidder shall be paid no additional amount for the above and for any access to be made to reach the construction site. The bidder shall submit design and drawing for shuttering & centering work for the approval of the Engineer-in-Charge before commencing the works.
- 9.2.26.3 All materials shall be new and of the best respective kinds described in the schedule of quantities and / or specifications and in accordance with the Engineer-In-Charge's instructions and the bidder shall upon the request of the Engineer-In-Charge furnish him with all invoices, accounts, receipts, certificates and other vouchers, to prove that the materials comply herewith. The bidder shall at his own cost arrange for and / or carry out any test of materials which the Engineer-In-Charge may require.
- 9.2.26.4 It shall be the responsibility of the Bidder to unload, store in a safe and acceptable manner all construction materials and equipment in whole or part, as directed by the Engineer-In-Charge.
- 9.2.26.5 The bidder is required to provide and maintain all tools, and equipment and instructions necessary to perform his work. He shall provide all fuels, lubricants and compressed air for the operation and maintenance of his construction tools.
- 9.2.26.6 The bidder is obliged to arrange for all his requirement of materials to complete the work as indicated in the specifications.
- 9.2.26.7 The bidder shall provide facilities for his office, warehouse, tool room, change room or any other building required to execute his work.

9.2.26.8 Samples of all material to be used, whether bricks, rubble stone, aggregate, sand, timber etc. Shall be tested in approved laboratory and submitted by the Bidder and must be got approved by the Engineer-In-Charge before they are used. Approved samples shall be kept with the Engineer-In-Charge and all supplies shall strictly conform to the samples. Materials not strictly conforming to the samples are liable to be rejected.

9.2.26.9 The bidder shall not sell, assign, mortgage, hypothecate or remove partly or fully completed structures, equipment or materials which have been installed or which may be necessary for the completion of the contract.

9.2.27 Submission and approval of drawings etc.

9.2.27.1 If any construction drawings will be provided to the Bidder for execution of the Civil works during the project period. Bidder shall keep the drawing in good condition and shall use the latest revision(s) if any, for execution purpose. For mechanical and Electrical Equipment's and for any work for which designs are needed to be submitted by the bidder it shall submit the same in Three sets of which will include detailed design calculations / specifications equipment. The Engineer-in-Charge will review the Designs and Drawings of the Mechanical and Electrical works as and when submitted and based on the acceptability instruct the Bidder for any clarifications etc., in Designs and Drawings. Engineer-in-Charge will only, after reviewing, the Designs and the respective Drawings submitted by the bidder and found suitable and which are in line with the Quality as per the specifications, forward the same to the Engineer-In-Charge who in turn will sent the same to the bidder. Only after having received the go ahead, the bidder can use the approved drawings and designs for further manufacturing and subsequent procurement. One set of such approved drawings/design calculations/specifications will be returned to the Bidder for the purpose of using them in the execution of work.

9.2.27.2 Any additional information, further detailed calculations will have to be furnished by the bidder on demand by the Engineer-In-Charge in Charge for the purpose of approval as described above.

9.2.27.3 The Bidder shall have to submit all the working drawings/ sketches, diagrams to be used for the work to the Employer and all such drawings/ design calculations/ specifications shall have to be approved from the Engineer-in-Charge who in turn will forward the same to the Engineer-In-Charge for further process and issuing to the bidder, before starting of any work related to them.

9.2.27.4 Even though the drawings/ design calculations/ specifications submitted by the bidder are approved by the Engineer-In-Charge, such approval shall not absolve the Bidder from his duties, responsibilities and liabilities as expected for carrying out the work.

9.2.28 To define terms and explain plans

9.2.28.1 The various parts of the Contract are intended to be complementary to each other, but should any discrepancy appear, or any misunderstanding arise as to the import of anything contained therein, the explanation of the Engineer-In-Charge shall be final and binding.

9.2.28.2 Whenever, in the specifications or on the drawings which are a part of this contract or which may be furnished by the Bidder for use on this work, the terms and description of various qualities of workmanship, material, structures, processes, plant or other features of the Contract are described in general terms, the meaning of fulfillment of which must depend on judgment, then in all such question of fulfillment of such specification or requirements shall be decided by the Engineer-In-Charge. Said materials shall be furnished, said work shall be done, and said structures, plant or feature shall be constructed or furnished in full and complete in accordance with, his interpretation of the Engineer-In-Charge full satisfaction and approval, provided such interpretation is not in direct conflict with the drawings and specifications and generally accepted good practice.

9.2.28.3 Matter shown either on the drawings or in the specifications shall be done and furnished as it shown in both except where expressly excepted either in the specifications or on the drawings, figured dimensions shall in all cases be taken in preference to scaled dimensions or measurements and detailed drawings to general drawings of the same part of the work.

9.2.29 Water, Electricity and other facilities

9.2.29.1 Bidder shall have to make, his own provisions for supply of water and electricity from various agencies or from his sources for the execution of work:

9.2.30 Engineer-In-Charge to direct work and order alterations, modifications, deletions

9.2.30.1 The Engineer-In-Charge shall have the right to direct the manner in which all work under this contract shall be conducted in so far as may be necessary to secure the safe and proper progress and the specified quality of the work, and all work shall be done and all material shall be furnished to the satisfaction and approval of the Engineer-In-Charge.

9.2.30.2 Additional drawings and explanations to exhibit or illustrate details may be provided by the bidder. The written decision of the Engineer-In- Charge as to the true construction and meaning of the drawings and explanations shall be binding upon the bidder.

9.2.30.3 If at any time the bidder's method, materials or equipment appear to the Engineer-In-Charge to be unsafe, insufficient or inadequate for securing the safety of the workmen or the public, the quality or work or the rate of progress required, he may order the bidder to increase their safety, efficiency and adequacy, and the bidder shall comply with such orders. If at any time the bidder's working force and equipment are, in the opinion of the Engineer-In- Charge inadequate for securing the necessary progress, as herein stipulated,

the bidder shall , if so directed, increase the working force and equipment to such an extent as to give reasonable assurance of compliance with the schedule of completion. The failure of the Engineer-In-Charge to make such demands shall not relieve the bidder of his obligations to secure the quality, the safe conducting of the work and the rate of progress required by the contract, and the bidder alone shall be and remain liable and responsible for the safety, efficiency, and adequacy of his methods, materials, working force, equipment and timely completion of job irrespective of whether or not he makes any change as a result of any order or orders received from the Engineer-In-Charge.

9.2.30.4 The Engineer-In-Charge shall have the power to make any alternations in, omissions from, additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the bidder shall bound to carry out the work in accordance with any instructions that may be given to him in writing by the Engineer-In-Charge and such alternations, omissions, additions or substitutions shall not invalidate the contract. Any altered, additional or substituted work which the bidder may be directed to do in the manner above specified as the work, shall be carried out by the bidder on the same conditions in all respects on which he agreed to do the main work and the similar rates as are specified in the tender for the main work, unless such alternations are not similar to or derivable from the items of work and form extra items.

9.2.31 Bidder's Supervision

9.2.31.1 The bidder shall, during the whole time of the work is in progress, employ a qualified personnel's as stated in the tender document, to be in charge of the works with adequate experience in handling of jobs of this nature and with the prior approval of the Engineer-In-Charge. The personnel shall be constantly in attendance at the site during working hours. During Bidder's absence during working hours, if unavoidable, and also beyond working hours, when it may be necessary to give directions, orders may be given by the Employer/Engineer- In-Charge and shall be received and obeyed by the bidder's superintendent or even foreman who may have charge of the particular part of the work in reference to which orders are given. If requested to do so, the Employer/ Engineer-In-Charge shall confirm such orders in writing. Any direction, instructions or notices given by the Engineer-In-Charge to him, shall be deemed to have been given to the bidder. The required powers and authority shall be given to the bidder's representative (Personnel) by the bidder so as to engage labour or purchase materials and proceed with the work as required for speedy execution.

9.2.31.2 None of the Bidder's personnel's, supervisors or labour should be withdrawn from the work without due notice being given by the Employer / Engineer-In-Charge, further no such withdrawals shall be made from the work when in the opinion of the Engineer-In-Charge such withdrawals will jeopardize the required pace of progress/successful completion of the work.

9.2.31.3 The bidder shall employ in or about execution of the works only such persons as are careful, skilled and experienced in their respective trades. The Employer shall be at liberty to object to and require the bidder to remove any persons employed by the bidder, in or about execution of works who in the opinion of the Employer/ Engineer-In-Charge misconducts himself or is incompetent or negligent in the proper performance of his duties and all such persons shall not be employed upon the works without prior permission of the Employer.

9.2.31.4 Neither the bidder, nor the Engineer-In-Charge shall hire or employ any employee of the other party without mutual consent

9.2.32 Setting out works

9.2.32.1 The bidder shall set out the works and shall be responsible for true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error shall appear during the progress of any part of the work, the Bidder shall at his own expense rectify such error, if called upon, to the satisfaction of the Engineer-In- Charge.

9.2.32.2 The Bidder shall provide all facilities, instruments and attendance to the Engineer-In-Charge or his deputed representative to check his work. Instrument brought by the Bidder shall be in good working condition and are subject to approval of the Engineer-In-Charge. Checking in part or full or setting out or any line or level by the Engineer-In-Charge shall not in any way relieve the bidder of his responsibility for the correctness thereof.

9.2.32.3 The bidder shall establish and maintain base lines and bench marks adjacent of the various sections of work. All such marks and stakes must be carefully preserved by the bidder and in case of their destruction by him or any of his employees; they will be replaced at the bidder's expense.

9.2.32.4 The bidder shall be responsible for the accuracy of all dimensions within the various sections of the work according to the figures of dimensions on the drawings.

9.2.33 Access

9.2.33.1 The Engineer-In-Charge, his representatives and the Employer shall at all reasonable times have free access to the works and / or to the workshops, factories or other place where materials are being prepared or constructed for the contract and also to any place where the material are laying or from which they are being obtained the bidder shall give every necessary facility to the Engineer-In-Charge and his representatives for inspection and examination and test of the materials and workmanship even to the extent of discontinuing portions of the work temporarily or of uncovering or taking down portions of finished work.

9.2.33.2 If any work is to be done at place other than the site of the works, the Bidder shall obtain the written permission of the Engineer-In-Charge for doing so.

9.2.34 Failure by the Bidder to comply with the Engineer-In-Charge instructions.

9.2.34.1 If the Bidder after receipt of written notice from the Engineer-In- Charge requiring compliances with such further drawings and /or the Engineer-In-Charge instructions fail within seven days to comply with the same, the Engineer-In-Charge may employ and pay other agencies to execute any such work whatsoever as may be necessary to give effect thereto and all costs incurred in connection therewith shall be recoverable from the Bidder by the Employer on a certificate by the Engineer-In-Charge as a debt or may be deducted by him from any money due or to become due to the Bidder.

9.2.35 Construction Supervision and Workmanship

9.2.35.1 The Engineer-In-Charge will engage his own supervisory staff of works as may be deemed fit. The Bidder shall provide the supervisor every facility and assistance for examining the works and materials for checking and measuring the works and materials. The supervisors shall have no power to revoke, alter, enlarge or relax any requirement of the contract, but may sanction only day work, additions, deviations or omissions, or any extra work whatever as may be authorized by the Engineer-In-Charge.

9.2.35.2 The supervisors will act as representatives of the Employer and shall have the power to give notice to the Bidder or to his Foreman of non- approval of any work or materials, and such work shall be suspended or the use of such material shall be discontinued, until the decision of the Engineer-In-Charge is obtained.

9.2.35.3 The work shall be conducted under the general direction of the Engineer-In-Charge and is subject to inspection by his supervisors to ensure strict compliance with the terms of the Contract. No failure of the Engineer- In-Charge or his supervisors during the progress of the work to discover or to reject materials, or work not in accordance with the requirement of this Contract, shall be deemed as acceptance thereof or a waiver of defects therein and shall be considered to be an acceptance of the work or materials which are not strictly in accordance with the requirements of this Contract. No changes whatsoever to any provision of the specifications shall be made without written authorization of the Employer.

9.2.35.4 The Bidder shall execute the whole and every part of the work in the most substantial and workman like manner as regards material and in all other respects.

9.2.35.5 The provisional acceptance of sections of the work shall not be considered so as to prevent the Engineer-In-Charge from requiring replacement of defective work that may become apparent after the said provisional acceptance and shall not be constructed in

any way on the basis for a claim of extra compensation for any cause whatsoever by the Bidder.

9.2.36 To remedy defective work and defects liability period.

9.2.36.1 If the work or any portion thereof shall be damaged in any way excepting by the acts of the Employer, or if defects not readily detected by proper inspection shall develop before the final completion and acceptance of the whole work, the bidder shall forthwith make good, without compensation, such damages or defects in a manner satisfactory to the Engineer-In-Charge/Employer. In no case shall defective or imperfect work be retained.

9.2.36.2 Thirty Six calendar months from the date of successful completion of performance run of the plant unless otherwise agreed in writing by the Employer/ Engineer-In-Charge will be deemed as the "Defects Liability Period". In case any defects in the work due to wrong assumptions in designs, bad materials and / or bad workmanship developed in the work before the expiry of this period, the Bidder on notification by the Employer shall rectify or remedy the defects at his own Cost and he shall make his own arrangements to provide material, labour, equipment and any other appliances required in this regard. In case even on due notification by the Employer, the Bidder fails to rectify or remedy the defects the Employer shall have the right to get this done by other agencies and recover the cost incurred by deductions from any money due or that may become due to Bidder.

9.2.36.3 The Employer may in lieu of such amending and making good by the Bidder, deduct from any money due to the Bidder a sum to be determined by the Employer equivalent to the cost of amending such work and in the event of such due payment becoming insufficient, recover the balance from the Bidder together with any expenses to the Employer may have incurred in connection with such recovery.

9.2.36.4 The Bidder shall remain liable under the provisions of this clause notwithstanding the passing by the Employer of any certificate, final or otherwise or the passing of any accounts.

9.2.36.5 The Bidder shall see that the excavated material or debris from the work under the contract shall be placed at a place and in a manner, as designated by the Engineer-In-Charge and he shall remove it from time to time as required by the Engineer-In-Charge so that their shall not cause any interference or obstruction to the Employer or other Bidder's work in the adjacent areas.

9.2.37 Night work - Holiday working – Permission

9.2.37.1 The bidder normally is to work during daytime only and is required to complete the work in all respects as stipulated in the tender documents. However, night work or holiday work may be permitted under particular exigencies with prior approval of the Engineer-In-Charge.

9.2.37.2 Sufficient light shall be provided to safe guard the workers and the public and to afford adequate facilities for proper placing and inspecting the material when the night work is in progress.

9.2.38 Daily diary & progress report

9.2.38.1 A daily diary register will be kept in the supervisor's office. The bidder will supply all detailed information every day at nine hours for the day preceding and diary will be jointly signed by the site supervisor and Bidder's representatives, every day in token of its correctness.

9.2.38.2 A works instruction book, serially numbered will also be kept in the site supervisors' office and all day-to-day instructions will be given in that book. The Bidder's representative shall report every day to see these instructions and sign them at the bottom in token of his having seen them.

9.2.38.3 The Bidder shall supply all information regarding procurement of materials and progress of construction work, as it is required by the Engineer- In-Charge for compiling the progress reports. The Bidder shall provide a weekly plan for the execution of the work for coming week.

9.2.39 Bidder to remove all offensive matter and clean-up.

9.2.39.1 All soil, dirt or other matter of an offensive nature taken out of any excavation, trench, sewer, drain, cesspool or other place shall be carried away by the Bidder to some pit or place provided by him away from the site or work and approved by local authorities.

9.2.39.2 As a part of the work included in this contract, the bidder shall completely remove and satisfactorily dispose of all temporary buildings, shall remove or grade, to the extent directed, all embankments or coffer dams made for construction purposes, shall satisfactorily fill excavations as directed, shall remove all plant and equipment, shall satisfactorily dispose of all rubbish resulting from the operations under this contract and shall do all work necessary to restore the territory embraced with the site conditions to at least as good order and conditions at the beginning of the work under this contract.

9.2.40 Safety Precautions

9.2.40.1 The Bidder shall pay particular attention to ensure safety of his staff and workmen and others in the vicinity and shall be responsible for any loss of life or injury to persons due to negligence or any other causes whatever except natural causes. He shall provide all necessary fencing and lights required to prevent accidents and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may with consent of the Bidder be paid to compromise any claim of any such person.

9.2.40.2 The Bidder shall reinstate all damage of every part mentioned in this clause so as to deliver the whole of the contract work complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

9.2.40.3 The Bidder shall take all precautions necessary and shall be responsible for the safety of the work and shall maintain all lights, guards, sign boards, temporary passages, or other protection necessary for the purpose. All work shall be done at the Bidder's risk and at any loss or damage free from all expenses to the Employer. The bidder shall be responsible for any loss or damage to material, tools or other articles used or held for use in connection with work. The work shall be carried on to completion without damage to any work or property of the Employer or of others and without interference with the operation of existing machinery or equipment.

9.2.40.4 The use of explosive in manner, which might disturb or endanger the stability, safety, or quality of the works, will not be allowed. Explosives shall be stored, handled and used as prescribed by the law and regulation of the Indian Union, the state in which the work is performed and sub- divisions thereof. Special attention must be given to immediate disposal of paper wrappings from explosives, which are poisonous to livestock.

9.2.40.5 All the documents regarding safety aspects should be made available to the Employer at any time during the progress of the work.

9.2.40.6 All safety requirements as per the various applicable laws shall be strictly complied with. If the safety requirements are found to be not adhered to, this will be enough cause for the breach of contract and the contract may be terminated.

9.2.41 Fair wages

9.2.41.1 The bidder shall comply with all industrial and labour rules and regulations, which are in force from time to time. The Bidder has to follow strictly the government labour acts that are in force at present and at all future times and all necessary arrangements for labour will have to be made by the Bidder.

9.2.41.2 No child labour shall be employed in the work.

9.2.41.3 The Bidder shall pay not less than fair wage to labour engaged by him on the work. "Fair wage means wage whether for time or piece work notified at the time of inviting tenders for the work and where such wages have not been done so notified, the wages prescribed by the Central Public Works Department for the district in which the work is done and it shall not be less than the minimum rates of wages fixed by the Government (Central or State) for that class of employees engaged on the same type of work in the same area.

9.2.41.4 The Bidder shall notwithstanding the provisions of any Contract to the contrary cause to be paid a fare wage to labourers indirectly engaged on the work including any labour

engaged by his Sub-connectors in connection with the said work, as if the labourers had been immediately employed by him.

9.2.41.5 In respect of all labourers directly or indirectly employed in the works for the performance of the Bidder's part of this agreement, the bidder shall comply with or cause to be complied with C.P.W.D. Bidder's Labour regulations made by the Government from time to time in regard to payment of wages, wage period, deductions from wages, recovery of wages not paid, any deductions from wages, recovery of wages not paid, any deductions unauthorized made maintenance of wage register, wage cards, publication of scale of wages, leave, maternity benefit and other terms of employment, inspection and submission of periodical returns and all other matters of alike nature to the Employer /Engineer-In- Charge and / or to the Labour Welfare Officer or any other person Authorized by the Government.

9.2.41.6 The Employer shall have the right to deduct from the money due to the bidder, any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-payment of wages of deductions made from his or their wages which are not justified by their terms of the Contract or non- observation of regulations.

9.2.41.7 The Bidder shall at his own expense provide or arrange for protective clothes and equipment like helmets, safety belts gumboots, welding goggles etc. for his labourers / employees engaged in trades which may be injurious to their health unless proper precautions are taken.

9.2.41.8 If all the safety norms are not provided, it will be enough cause for breach of Contract & Contract shall be terminated.

9.2.42 Camps and sanitary conveniences

9.2.42.1 The responsibility for providing any accommodation, feeding and sanitary necessities for the men employed by the bidder shall be that of the bidder exclusively and such facilities shall be provided outside the premises of the Employer. The Employer may provide the bidder with space for building a temporary structure or warehouse, which shall not be used for housing any labour or supervisory force of the bidder. Within 2 weeks of completion of contract, the bidder shall remove and hand over to the Employer the space made available in a clean and tidy condition.

9.2.42.2 The bidder shall not put up any unauthorized hutments, canteens or teashops on the Employer's property. These, if any, shall be with the knowledge and prior approval of the Engineer-In-Charge in writing.

9.2.42.3 It shall be very clearly understood that the bidder shall not put up any structure for housing his labour or his supervisory staff on the Employer's land without the specific prior consent of the Employer.

9.2.42.4 The bidder shall provide adequate supply of water for the use of labourers. The provisions shall not be less than 10 liters of potable and wholesome water per head per day for drinking purpose and 100 liters of clean water per head per day for flushing and washing purposes. 1.42.5 The bidder shall make necessary arrangements for the treatment of sewage by providing septic tanks. He shall also provide efficient arrangement for draining away sludge water so as to keep the camp neat and tidy. All charges on these accounts shall be borne by the Bidder.

9.2.42.5 The bidder shall make arrangement for conservancy and sanitation in the labour camps according to the rules of the local public health and medical authorities and shall generally follow the requirements of "Model Rules for the Protection of Health and Sanitary Arrangements for Workers employed by the Bidder.

9.2.43 Intoxicants

9.2.43.1 The Bidder shall not permit use of intoxicating liquor upon the works included in this Contract, or upon any of the ground occupied or controlled by him under this Contract.

9.2.44 Identification badges

9.2.44.1 The Bidder shall provide each of his employees including labour, with identification badge, at his cost. The colour & design of these badges shall subject to the approval of the Employer. The employees shall display the badges on their person so that the badges are clearly visible for easy checking by gateman as they enter the premises of the Employer. The badges shall be serially numbered. The Bidder's initials shall be printed with the number on the badge.

9.2.44.2 The Bidder should immediately notify to the Employer if any of the badges are lost and a new one issued in its place or when badges are carried away by discharged labour. No employees of the bidder, without a badge will be permitted to enter the premises of work, except in such cases, where special permission of the Employer or the Engineer-In-Charge is obtained.

9.2.45 Force Majeure

9.2.45.1 Force Majeure is herein is defined as (1) any clause which is beyond the control of the bidder or the Employer, as the case may be, (2) natural phenomenon like flood, draught, earthquakes and epidemics notified by the Government, (3) act of any Government authority, domestic or foreign, like war, declared or undeclared, government priorities, quarantine, embargoes, licensing control or production or distribution restrictions, (4) accidents and disruptions like fire and explosions. (5) transport problems due to force majeure or accidents, (6) strikes, slowdowns, lockouts and sabotage by the persons other than those under control of the bidder, (7) riots and civil commotion. (8) Failure or delay

in the supply or delivery of materials, plant or equipment to the bidder as consequence of any of force majeure causes enumerated at 1 to 7 above.

9.2.46 Work in monsoon and dewatering

9.2.46.1 The construction and erection work may entail working in monsoon also. The bidder must maintain labour force as may require for the job and plan execute the construction and erection according to the prescribed schedule. No extra working period or payment will be considered for such work in monsoon.

9.2.46.2 During monsoon and other period it shall be the responsibility of the bidder to keep the construction site free from accumulation of water at his own cost.

9.2.47 Schedule of Liquidated Damages

Delay: Compensation for delay and limit of compensation for delay shall be as follow: -

Compensation for delay shall be calculated at the rate of INR 3,000/- per day. The limit of compensation shall be 10% (Ten percent) of the total contract amount inclusive of capital and O & M cost as given in the schedule.

9.2.48 Price Variation Clause

DELETED

10. SPECIAL CONDITIONS OF CONTRACT

10.1 SPECIAL CONDITIONS

10.1.1 The Bidder should have MOU with meter manufacturer.

10.1.2 The Bidder can sign MoU with only those water meter manufacturing companies fulfilling Technical & Financial eligibility criteria as mentioned in 5.3 & 5.4.

10.1.3 The Bidder can sign MoU with only one water meter manufacturer.

10.1.4 The Bidder has to execute a triparty agreement after award of contract between Bidder, Meter manufacturing company and TMC, with clear mention of roles and responsibilities of Bidder & Meter Manufacturing Company.

10.1.5 The bidder can bid for all the two packages however one bidder will be awarded maximum one package.

10.1.6 On award of contract, the bidder shall deposit the performance guarantee equivalent to 60% amount and water meter manufacturer 40% amount of performance guarantee.

10.1.7 Presently TMC is using billing software to generate the monthly water bills. It is required for the bidder to use the existing water billing software till the new billing software and billing system is in place.

10.1.8 The bidder should give undertaking that they will create Customer Care Center in Thane City within two months from the date of work order.

10.1.9 The Water Meter Manufacturer should give undertaking that they will create Meter Calibration, Test Bench & Service Center in Thane City within two months from the date of work order.

10.1.10 The water meter manufacturer nor bidder is allowed to withdraw or cancel the MOU during the bid process and after award of work. Failing which the bid will be canceled.

10.1.11 The water meter manufacturer nor bidder is allowed to withdraw or cancel the MOU during the bid process and after award of work. Failing which the bid will be canceled.

10.1.12 Performance Security shall be 10% of Contract Price, out of which 60% will be released after two months of successful installation and Commissioning of the entire system and balance 40% will be released after successful completion of O&M period.

10.1.13 The liquidated damages: If the bidder fails to deliver any or all of the Water Meters and related infrastructure by the Date(s) of delivery within the period specified in the Contract (Schedule of Requirements), the liquidated damages will be levied at 0.5% per week or part thereof as applied to the value of delayed goods. If the bidder fails in installation and commissioning of the supplied Water Meters and related infrastructure by the

Completion Date(s) specified in TOR for List of Related Services, for reasons not attributable to the bidder, the liquidated damages will be levied at 0.5% per week or part thereof, as applied to value of the delayed services.

10.1.14 The project timelines mentioned in TOR are tentative and can be squeezed and altered in mutual agreement with Bidder, TMC to speed up the work and finish at the earliest based on the requirement. No extra payment shall be made.

10.1.15 This project falls under Excise and Import Duty exemption act. Bidder has to complete the documentations and follow up for the same. However all the necessary support from the TMC for the documentation and proposal shall be provided. If the bidder fail to do that, TMC will not provide any cost pertaining to the subject of Excise & Import Duty.

10.1.16 The space required for creating Water Meter Calibration, Test bench and service center in Thane has to arrange by bidder with discussion and approval by Engineer In charge. TMC will not provide any space or land required for the same.

10.1.17 The bidder shall provide 2 (Two) SUV vehicle to the department during the period of execution of the work. The cost of fuel, insurance, driver payment shall be borne by the contractor and will not be reimbursed.

10.1.18 All drawings attached to the tender are for tender purpose only.

10.1.19 If any new connection is given by TMC the bidder shall also install all new connections even if the bidder has completed the installation in a particular area.

10.2 PAYMENT TERMS

The total Contractor Payments for Works and Services comprises of three components:

- i. Payment for the Flow Meter Items, Consumer Survey Item, House Connection Item, Consumer Awareness Item, IT & Billing Item
- ii. Payment for O&M Services
- iii. Monthly Annuity payment

10.2.1 Payment for Flow Meter Items, Consumer Survey Item, House Connection Item, Consumer Awareness Item, IT & Billing Item

The Payment for above work includes TMC's share of maximum 70% shall be paid during the construction period and the balance 30% shall be paid in form of monthly annuity payment over the 84 months i.e. during O&M period. The first such EMI starts from the date of completion of capital work period (i.e. 36 months) from the date of commencement.

Note:- (i) Additional Capex amount if any shall be paid as per BoQ, (ii) Any addition in O&M Service upto 10% shall be within the quoted price for O&M

The measurement shall be as per actual work done and certified by engineer in charge as per price bid and as per scope of work.

The below mentioned payment breakup is proposed by TMC. The successful bidder shall submit sub breakup of the items mentioned. TMC reserves the right to change components of sub breakup and payments for the items executed shall be as per the sub breakup approved by TMC. The 70% amount of the respective items shall be paid as per following breakup and 30% amount shall be paid as monthly annuity payment for 84 months

(A) For Consumer Survey and Consumer Awareness Items

1. Consumer Survey (Item No. 1 & 2)

The following payment conditions will be applied for the above mentioned Consumer Survey items:

- a) 90% Payment of cost of the item shall be released after successful completion of consumer survey activity and submission of report to the satisfaction of Engineer-In-Charge / third party inspection team appointed by TMC.
- b) 10% Payment of cost of the item shall be released after successful completion of flow meter installation activity to the satisfaction of Engineer-In-Charge / third party inspection team appointed by TMC.

2. For Consumer Awareness (Item No. 3, 4, 5, 6, 7, 8 & 9)

- a) 100% Payment of cost of the item shall be released after successful completion of consumer Awareness activity to the satisfaction of Engineer-In-Charge / third party inspection team appointed by TMC.

(B) Cost of Flow Meters, HSC and IT & Billing:

1. For Flow Meters (Item No. 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22)

The following payment conditions will be applied for the flow meter items:

- a) 60% payment of cost of the item shall be released after receipt of confirmation of passing of tests carried out at designated laboratory for each sample randomly chosen as per the procedure described in the technical specifications for the Tender and successful supply & installation after inspection of the installation by the Engineer-In-Charge / third party inspection team appointed by TMC.
- b) 25% payment of the cost of the item shall be released after satisfactory testing of AMR system by the Engineer-In-Charge / third party inspection team appointed by TMC upto & including trial bill generation process.
- c) Out of the balance 15 % payment of the cost of meter, 1.5% payment shall be released every year of satisfactory maintenance period of ten years.

The above payment will be released on pro-rata basis.

2. For House Service Connection (Item No. 23, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39)

- a) 90% payment of cost of the item on pro rata basis shall be released after successful supply & installation after inspection of the installation by the Engineer-In- Charge / third party inspection team appointed by TMC. Successful installation means installation of house connection from distribution pipe /ferrule to water meter, plugging of drills on distribution lines and installation of Water meter.
- b) 10% payment of the cost of the item shall be released after satisfactory testing and reinstatement of surface and inspection by the Engineer-In-Charge / third party inspection team appointed by TMC.

3. For IT & Billing (Item No. 31,32)

- a) 90% Payment for the item shall be released after successful supply & installation after inspection of the installation by the Engineer-In- Charge / third party inspection team appointed by TMC.
- b) 10% Payment for the item shall be released after successful generation of billing for installed meter of the first lot.

10.2.2 For Operation & Maintenance (Item No. 40)

The following payment conditions will be applied for the Operation & Maintenance items:

- a) O & M shall start from successfully commissioning of each lot of 5000 meters including testing of AMR system and generation of bills.
- b) O&M payment will be released calculated accordingly and paid at the end of each quarter

Note:- The payments of the flow meter item and O & M item will not be released if the consumer survey activity is not completed in all respect to the satisfaction of Engineer-In- Charge / third party inspection team appointed by TMC.

10.2.3 Monthly Annuity Payment (Item Covered: Item No. 41)

Monthly annuity payment is the payment of 30% share of the cost of Flow Meter Items, Consumer Survey Item, House Connection Item, Consumer Awareness Item, IT & Billing Item which is to be paid in equated monthly installments (EMI) as quoted by the bidder in price bid with reference to the item no. 41 of price bid.

Monthly Annuity Payment shall be adjusted for following

- (i) Proportionate to certified value of work completed till 36th months of Implementation Period.
- (ii) Balance work completed after 36th month of Implementation Period shall be paid in subsequent 84 months proportionate to certified value of work completed after Implementation Period of 36 months.

Note: - In case if there is a delay in payment of Monthly Annuity Payment of 60 days from the due date, then the interest on delayed payment of annuity to be paid to Contractor for the delayed period from the due date of the annuity at the Base Lending rate SBI as on the date from 30 days of the due date of annuity payment.

11. ANNEXURES & FORMS

Annexure –1

UNDERTAKING (On an INR 100/- Stamp paper)

Format for the undertaking to be submitted by bidder that they have not been debarred or blacklisted as on date in any Organization/Department:

“IT IS HEREBY CERTIFIED THAT I/WE HAVE NOT BEEN DEBARRED OR BLACKLISTED IN ANY ORGANIZATION/DEPARTMENT AS ON DATE.....”

SIGNATURE

Annexure –2

UNDERTAKING

(On an INR 100/- Stamp paper)

The information / documents submitted by us are true to our knowledge and if the information / Documents so furnished shall be found to be untrue or false, the bidder shall be liable to be disqualified and our Earnest Money accompanying Tender will be forfeited.

Also I am / we are aware that if the information / document found to be untrue or false during the period of Contract, our Contract liable to be terminated.

I / We hereby declare that I / We have made myself / ourselves thoroughly conversant with the site conditions, all materials and labour on which I / We have based my / our rates for this Work. The specifications & conditions for this Work have been carefully studied and understood by me / us before submitting this Tender. I / We undertake to use only the best materials approved by Thane Municipal Corporation and shall abide by TMC's decision.

I/ We agree that the amount of Earnest Money shall not bear interest and shall be liable to be forfeited to the TMC, should I/we fail to (i) Abide by the stipulation to keep the offer open for the period of 180 days from the date fixed for opening the same and thereafter until it is withdrawn by me/ us by notice in writing duly addressed to the authority opening the Tenders. (ii) Performance Guarantee Detailed in INSTRUCTION TO BIDDERS. The amount of earnest money may be adjusted towards the security deposit or refunded to me /us if so desired by me / us in writing, unless the same or any part thereof has been forfeit as aforesaid.

Should this Tender be accepted I / we hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto so far as applicable and in default thereof to forfeited and pay to TMC the sums of money mentioned in the said conditions.

Earnest Money (a) the full value of which is to be absolutely forfeited to TMC should I/ we not deposit the full amount of Performance guarantee specified in the Tender.

I/ We agree that the amount of Earnest Money shall not bear interest and shall be liable to be forfeited to the TMC, should I/we fail to (i) Abide by the stipulation to setup a sales/service center in Thane within two months of awarding the contract or issue of Work Order.

Bidder.....
Address
.....
Date the day of
Signature of Bidder
(Witness).....

Signature of Witness

Address.....

(Witness).....

Signature of Witness

Address.....

Annexure-3

INFORMATION ON LITIGATION

{To be printed on the authorized Letterhead of the Applicant, including full postal address, telephone, fax and e-mail address}

Sr. No.	Name of applicant	Name of Bidder with which litigation and brief subject	Estimated financial liability	Present Status

STAMP

SIGNATURE OF BIDDER

Annexure-4

UNDERTAKING

(On an INR 100/- Stamp paper)

I / We hereby declare that our Company has a Sales/Service Center in Thane located in ----- (specify address), and adequate to fulfill all the requirements stipulated under the Special Conditions of the Contract (Clause 1-22).

Or (whatever it may be the case)

I/ We hereby undertake that our Company shall establish and put in operation a Sales/Service Center in Thane and that this facility shall be adequate to fulfill all the requirements stipulated under the Special Conditions of the Contract, within a period of two months of awarding the Contract or issue of Work Order.

Bidder.....
Address
.....
Date the.....day of.....
Signature of Bidder
(Witness).....
Signature of Witness
Address.....

Annexure-5

FORMATS

A. Format for undertaking to be issued by the original manufacturer

(To be submitted on the letterhead of original manufacturer in original and shall be signed in blue ink.)

The City Engineer,
Water Supply Department
Thane Municipal Corporation
Mahanagarpalika Bhavan, Dr. Ulmeda Road,
Chandanwadi, Panchpakhadi,
Thane - 400602, Maharashtra (India)

Sub.: Letter of authorization cum undertaking.

Ref.: Tender for “Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Metering & Related Infrastructural Works for Thane City”

Dear Sir,

We **NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER** having our registered office at **REGISTERED OFFICE ADDRESS OF ORIGINAL EQUIPMENT MANUFACTURER** hereby authorize **NAME OF THE AUTHORISED DEALER** having their registered office at **REGISTERED OFFICE ADDRESS OF AUTHORISED DEALER** to offer our test setup and its equipment's & software System and as per the requirements of reference tender specifications.

We hereby agree that against reference tender, our products have been offered to the TMC, by **NAME OF THE BIDDER** and we undertake to extend them all required technical & service support / backup for the successful supply, installation, commissioning and testing of the Meters & test setup along with its maintenance & its guarantee etc., for the complete contractual project period, as per tender specification & as per our detailed technical offer enclosed in the tender.

Thanking you,

Yours faithfully,

For NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER

AUTHORISED SIGNATORY WITH NAME & DESIGNATION

B. Memorandum of Understanding

Annexure-6

(On an INR 500/- Stamp paper)

Made as of this **DATE** day of **MONTH YEAR**

Between

M/s. **ORIGINAL EQUIPMENT MANUFACTURER**, a company incorporated in **COUNTRY** and having its registered office at **REGISTERED OFFICE ADDRESS OF ORIGINAL EQUIPMENT MANUFACTURER**, herein represented by **NAME OF THE AUTHORIZED SIGNATORY**, here in referred to as '**MANUFACTURER**'

On the one hand

And

M/s. **BIDDER**, a company incorporated in **COUNTRY** and having its registered office at **REGISTERED OFFICE ADDRESS OF BIDDER**, here in represented by **NAME OF THE AUTHORIZED SIGNATORY**, herein referred as '**BIDDER**'

Reference:

For the Tender invited by the TMC for **"Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City"**

It is hereby agreed as follows:-

That the above two parties have entered into Memorandum of Understanding for Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Metering & Related Infrastructural Works for Thane City along with its software system and technical supports only for the above mentioned tender of M/s. Thane Municipal Corporation, herein referred to as "CLIENT" to work together wherein "BIDDER" will be the tenderer to client and, herein referred to as 'MANUFACTURER' will be a sub – supplier to the 'BIDDER' for the supply, installation commissioning and testing of water meter & test setup as per 'CLIENT's reference specification. 'MANUFACTURER' undertakes to extend all requisite technical pre and after sales support and all necessary spares as may be required for the entire duration of the contract, as dictated by the terms and conditions specified in the reference tender.

"Clear identification of all the Roles & Responsibilities of Bidder and Meter Manufacturing Company should be mentioned in this document"

Total Pages in this agreement are XX.

For BIDDER.

NAME & DETAILS OF

AUTHORIZED SIGNATORY

For MANUFACTURER.

NAME & DETAILS OF

AUTHORIZED SIGNATORY

In witness of

1) Name & Signature:-

2) Name & Signature:-

C. Format for Tripartite Agreement between Bidder, Meter Manufacturing Company & TMC

Annexure-6

(On an INR 500/- Stamp paper)

Tripartite Agreement

PARTY I

This undertaking is issued by '**NAME OF THE BIDDER**' a company incorporated in India and having its registered office at **REGISTERED OFFICE ADDRESS OF BIDDER** hereinafter referred as "**BIDDER**", which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include all its representatives, its successors and permitted assigns in favor of the TMC.

PARTY II

This undertaking is issued by '**NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER**' a company incorporated in India and having its registered office at **REGISTERED OFFICE ADDRESS OF ORIGINAL EQUIPMENT MANUFACTURER** hereinafter referred as "**NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER**", which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include all its representatives, its successors and permitted assigns in favor of the TMC.

PARTY III

This undertaking is issued to "The Superintending Engineer, Thane Municipal Corporation" Water Supply Department, Thane Municipal Corporation Shivaji Nagar, Thane-411 005. hereinafter referred as "**NAME OF TMC**", which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include all its representatives, its successors and permitted assigns in favor of the TMC.

WHEREAS The Superintending Engineer, Thane Municipal Corporation has invited tender for "**Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City**" (hereinafter referred as Work) under the purview of The City Engineer, Water Supply Department, Thane Municipal Corporation, Thane.

WHEREAS the **BIDDER**' has requisite expertise Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Metering & Related Infrastructural Works and has the requisite pre-qualification for the aforesaid Work.

WHEREAS the **NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER**' has requisite expertise in Design, Manufacture, Import, Sell, and Supply of water meters & test setup and has requisite expertise in the field of consumer water metering and has the requisite pre-qualification for the supply of the said water meters for the aforesaid work.

WHEREAS as per tender for the work the TMC has stipulated specific condition to enter into a specific and binding UNDERTAKING by approved Bidder & water meter manufactures to design, manufacture, supply and provide all necessary technical backup, spares and services of the requisite test setups as per the technical specifications elaborated in the tender & Operation and Maintenance during entire project period.

“Below mentioned Roles & Responsibilities are just guidelines, Party I & Party II should mention clearly the Roles & Responsibilities of Bidder and Meter Manufacturing Company as per there understanding”

IN VIEW OF THE ABOVE AND IN THE EVENT OF THE WORK BEING AWARDED TO NAME OF THE BIDDER BY TMC, WE HEREBY AGREE TO UNDERTAKE AS UNDER:

BIDDER

1. Procurement & Supply of AMR water meters as per tender specifications.
2. Procurement & supply of meter reading devices and reading software as per tender specs.
3. Installation of AMR meters under manufacturer guidance and as per tender specs.
4. Providing accessories / fittings / couplings for meter fixing as approved by meter manufacturer.
5. Installation of AMR water meters as per tender specification.
6. Monthly Water meter Data collection by AMR systems.
7. Generations & distribution of bills on monthly basis.
8. Attend all consumers complaints related to Water meters along with water meter manufacturer.
9. Repair & maintenance or replacement of AMR water meters for contract period.
10. Uninstallation & reinstallation of meters as and when required.
11. Consumer Survey for the entire city.
12. Consumer Awareness Program.
13. Operation & Maintenance for a period of 10 years.

METER MANUFACTURER

1. We have studied the tender documents and the requirements therein in detail and hereby confirm to adhere to relevant terms and conditions.
2. To design and supply meters & test setups as per the implementation schedule finalized by bidder and also to provide all the necessary technical backup, spares and services during the entire period of the Contract. (Meters, Meter Reading software & Hardware).
3. The meter manufacturer will provide signed warranty contract for hardware for a period of 10 years from the date of successful installation of meters.

4. The meter manufacturer will provide Training & Support to civil associate to attend customer grievances / complaints related to Meter performance for contract period.
5. The meter manufacturer shall be responsible for repair the Meters and the AMR system during the guarantee period as mentioned in technical specifications. The maintenance shall include costs of all material required for repairs or replacement of meter. During the Guarantee period if any meter becomes defective or not found as per specification, the same shall be repaired/replaced free of cost by the meter manufacturer.
6. The meter manufacturer shall keep a sufficient buffer stock of new meters for the purpose of replacement of out of order / damaged meters.
7. The meter manufacturer shall be solely responsible for replacement of defect / faulty AMR water meters against supply of meters for assigned work contract.
8. The meter manufacturer shall appoint a full-fledged team of skilled technicians, tools & mobile van to attend and resolve the customer complaints of urgent nature viz. leakage from the body of meter, fittings, blockage of strainer of the meter, within 24 hours irrespective of any holiday.
9. The meter manufacturer will provide total support and training to Civil Contractor staff regarding AMR meter reading data collection by reading device with reading software & how to transfer reading data in CSV format for monthly billing purpose.
10. All the relevant terms and conditions of the tender documents of the work shall be applicable mutatis mutandis (as it is basis) with respect to design, manufacture, supply & providing technical backup, spares and services during the entire period of the Contract.
11. In case of failure to adhere to delivery schedules / non-compliance of tender specifications pertaining to our part, the TMC can hold us equally responsible for such acts & deeds and shall reserve the right to initiate actions deemed fit in the interest of the work.
12. All decisions thus taken by the TMC in this regard shall be final and binding on ***BIDDER & NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER'***.

This Undertaking shall not be revoked till the Work is successfully completed as per the tender conditions.

IN WITNESS WHEREOF, We issue this Undertaking on ____ the day of ____ Month/ Year ____.

For and on behalf of **NAME OF THE BIDDER'**

Authorised Signatory

We hereby confirm the above & agree to abide by the same.

For and on behalf of **NAME OF THE ORIGINAL EQUIPMENT MANUFACTURER'**

Authorised Signatory

We hereby confirm the above & agree to abide by the same.

For and on behalf of **THANE MUNICIPAL CORPORATION**

Authorised Signatory

1. Witness:

Name & Signature

2. Witness:

Name & Signature

Annexure -7

(On an INR 100/- Non Judicial Stamp paper)

FORMAT OF BANK GUARANTEE FOR FAITHFUL PERFORMANCE OF CONTRACT

Bank Guarantee No [XXXXXX] in favour of:

Ref. No. :

Date :

To,
The City Engineer
Thane Municipal Corporation
Thane

WHEREAS..... *[INSERT NAME AND ADDRESS OF THE CONTRACTOR]* (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No....., dated....., to *[INSERT NUMBER, TITLE OF CONTRACT AND BRIEF DESCRIPTION OF SERVICES/WORKS/GOODS]*, (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Guarantee by a recognized Bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Guarantee;

NOW THEREFORE we hereby unconditionally and irrevocably affirm that we are the Guarantor and responsible to you up to a total of..... *[INSERT AMOUNT OF GUARANTEE IN FIGURES AND IN WORDS, INCLUDING CURRENCY]*, such sum being payable in the types and proportions of currencies in which the Contract price is payable, and we unconditionally and irrevocably undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[INSERT AMOUNT OF GUARANTEE]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein, and notwithstanding any objection by the Contractor.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until *[INSERT DATE]*

Name:
(Bank's common seal)

Name:

Signature and Seal of the Guarantor
Name of Bank
Address
Date

Bidder signature of Authorized Bidder signatory (with official seal) Date :

Place :
Name :
Designation :
Address :
Telephone & Fax :
E-mail address :

Bidder signature of Witness 1

Bidder signature of Witness 2

Annexure -8

THANE MUNICIPAL CORPORATION

CONTRACT AGREEMENT FOR

“Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City”

Tender Notification No.: 1 /2016-2017

BETWEEN

THANE MUNICIPAL CORPORATION

Mahanagarpalika Bhavan, Dr. Ulmeda Road,
Chandanwadi, Panchpakhadi,
Thane - 400602

Through the Authorised signatory,
The City Engineer,
Water Supply Department
Thane Municipal Corporation

&

Bidder

Through its Authorised representative

AGREEMENT

This Agreement made and executed on this th day of month 2016 at Thane.

BETWEEN

Thane Municipal Corporation

**A body constituted under the provisions of the Bombay Provincial Municipal Act, 1959,
P.M.C. Building, Shivajinagar, Thane-411005.**

Through the Authorised signatory,
The City Engineer,
Water Supply Projects,
Thane Municipal Corporation

Hereinafter referred to as “THE CLIENT” (which expression shall unless it is repugnant to the context or meaning there of shall mean & include its successor.)

.....**THE PARTY OF THE FIRST PART**

&

The Bidder

Through its Authorised representative

Hereinafter to as “THE BIDDER” (which expression shall unless it be repugnant to the context or meaning there of shall mean and include its permitted successors)

.....**THE PARTY OF THE SECOND PART**

Whereas, Thane Municipal Corporation invited the tenders for the appointment of “Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City”.

And Whereas, the Bidder submitted its tender and participated in the tender process including prebid meeting.

And Whereas, the Thane Municipal Corporation accepted the offer after due negotiations and subject to certain terms and conditions.

And Whereas, Hon’ble Standing Committee of Thane Municipal Corporation vide its resolution no. _____ dated _____ has given its sanction to award the work and for entering into a contract with the Bidder.

And Whereas, Superintending Engineer, Water Supply Projects has accordingly issued Letter of Intent dated _____.

And Whereas, in furtherance of the resolution of Standing Committee, the parties hereto have entered into this present agreement incorporating the terms and conditions relating to the “Supply,

Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City”.

NOW THIS AGREEMENT WITNESSTH AS FOLLOWS.

FORM I

BIDDER DETAILS

Name of Manufacturer and Class of Registration with Validity				
Address for communication & Telephone No.				
Details of proprietor/ Partners/ Director / Owner				
Name	Address	Designation	Qualification and Experience	
Annual Turnover Previous Financial year (Y-1) 2nd Previous Financial year (Y-2)			Certified copy of Audited Balance Sheet Profit / Loss statement attested (Yes/No)	
Details of Black Listing & Litigation				
Remarks				

* Note: The turnover amount shall be certified and audited by CA of Bidder and separate sheet should be enclosed.

STAMP

SIGNATURE OF BIDDER

FORM-II

DETAILS OF WORKS OF SIMILAR TYPE AND MAGNITUDE CARRIED OUT BY THE BIDDER (LAST 5 FINANCIAL YEARS)

Name of the Bidder:

Sr. No.	Name of Work	Type of Work	Name of Department	Name of Issuing Authority at Department	Address and phone number of Issuing Authority	Cost of Work	Number and size of meters supplied	Date of Starting	Stipulated date of completion	Actual date of completion	Remark
1	2	3	4	5	6	7	8	9	10	11	12

STAMP

SIGNATURE OF BIDDER

FORM III

LIST OF WORK IN HAND AS ON THE DATE OF SUBMISSION OF THIS TENDER

Sr. No.	Name of work	Name of Department	Name of Issuing Authority at Department	Address and Phone number of Issuing Authority	Work in hand			Anticipated date of completion	Remark
					Tender Cost	Cost of Work Completed	Cost of remaining work		
1	2	3	4	5	6	7	8	9	10

STAMP

SIGNATURE OF BIDDER

FORM-IV

LIST OF WORKS TENDERED AS ON THE DATE OF SUBMISSION OF THIS TENDER

Sr. No.	Name of work	Name of Department	Name of Issuing Authority at Department	Address and Phone number of Issuing Authority	Works tendered for			Remark
					Estimated cost	Date when award decision is expected	Stipulated date of completion	
1	2	3	4	5	6	7	8	9

Note: 25% to 50% estimated amount shall be considered based on stipulated period of completion

STAMP

SIGNATURE OF BIDDER

FORM-V

LIST OF RELEVANT PLANT AND MACHINERY

Sr. No.	Name of equipment	No. of Units	Kind & make	Capacity	Age & condition	Present Location	Remark
1	2	3	4	5	6	7	8
A)	Immediately available						
B)	Proposed to be procured for the work						

STAMP

SIGNATURE OF BIDDER

FORM-VI

DETAILS OF TECHNICAL PERSONNEL PROPOSED FOR THIS CONTRACT

Name of the Bidder:

Sr. No.	Name of personnel	Proposed Position	Technical Qualification	Whether working in field or in office	Experience of similar works	Period of work with the bidder	Period dedicated to work awarded in this contract	Remarks
1	2	3	4	5	6	7	8	9

STAMP

SIGNATURE OF BIDDER

FORM-VII

PERFORMANCE REPORT OF WORKS REFERRED TO IN FORM "II" & "III"

1. Name of the department, Name of authority, Designation, address, phone number
2. Name of work / Project & location
3. Details of work as the case may be
4. Agreement No.
5. Estimated Cost
6. Tendered Cost
7. Date of start
8. Date of completion
 - (i) Stipulated date of completion
 - (ii) Actual date of completion
9. Amount of compensation levied for delayed completion, if any.
10. Amount of reduced rate items, if any.
11. Performance Report

(1)	Quality of work	Good / At par / Poor
(2)	Financial soundness	Good / At par / Poor
(3)	Technical Proficiency	Good / At par / Poor
(4)	Resourcefulness	Good / At par / Poor
(5)	General behavior	Good / At par / Poor
(6)	Performance of work (after commissioning)	Good / At par / Poor
(7)	Client satisfaction	Good / At par / Poor
(8)	Stakeholders satisfaction	Good / At par / Poor

Dated:

Seal:

Assistant Commissioner/ Executive

Engineer / Superintending Engineer

TENDER DATA SHEET

Ref Clause in Instructions to Bidders	Data Information	
1.1	Scope of the works	
	Supply, Installation, Commissioning, Operation & Maintenance for Smart Water Meter & Related Infrastructure Work for Water Supply System of Thane City.	
1.1	Name and Address of Employer	: The Municipal Commissioner, Thane Municipal Corporation, Shivajinagar, Thane – 411 005, India
1.2	Period of Completion	: 60 calendar months from date of issue of work order (including Monsoon)
3	Amount of Earnest Money Deposit shall be as mentioned in the Press Tender Notice and shall be in form of TMC treasury receipt / DD/ Term deposit receipt / FDR from any Nationalized Bank valid for 180 days.	
7	Deadline for submission of Tenders is as mentioned in Press Tender Notice	
8	Period of Tender Validity 180 days from Submission of tender.	
13	Tender opening, Venue, time and date shall be as mentioned in press tender Notice	
16	Venue, time and date of Pre Tender Meeting As mentioned in the Invitation of Proposal 2.2	
17	Bidder shall submit his tender by the process of e-tendering as already explained in clause 6.9 of Instruction to Tenders	
	Contact Number	
32.1	<p>Performance Security will be total of 10% of the tender cost. The successful Bidder shall within 28 days of the award of contract submit performance guarantee as referred in the clause: 6.19</p> <p>Release of Performance Security Deposit</p> <p>The performance security deposit will be released progressively at equal installments at the end of every year of successful completion of O & M.</p>	
32.2	If the successful Bidder fails to perform or to execute the contract within the period as specified in Tender, his Tender Security (i.e. Earnest Money Deposit) shall be forfeited and the Bidder may be disqualified from further tendering for TMC.	

LIST OF ABBREVIATIONS:

TMC	Thane Municipal Corporation
24 X 7	Twenty Four Hours & Seven Days
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
AVG	Average
AWWA	American Water Works Association
CM	Cement mortar
CPM	Critical path method
CPHEEO	Central Public Health Engineering & Environmental Organization
Dia.	Diameter
EMD	Earnest Money Deposit
EMF	Electromagnetic Flow meter
EOI	Expression of Interest
GL	Ground Level
GOI	Government of India
ICT	Information & Communication Technology
INR	Indian National Rupee
ITB	Instructions to Bidders
IWA	International Water Association
JV	Joint Venture
LPCD	Litre Per Capita per Day
LPS	Litre per Second
MID	Measuring Instruments Directives
MIS	Management Information System
ML	Million Litres
MLD	Million Litres per Day
MOU	Memorandum of Understanding
NIT	Notice Inviting Tender
NRW	Non-Revenue Water
O&M	Operation and Maintenance
OIML	International Organization of Legal Metrology
PCC	Plain Cement Concrete
PT	Pressure Transmitter
PERT	Program Evaluation and Review Technique
R/A	Running Account
RCC	Reinforced Cement Concrete
RCC	Reinforced cement concrete
TDR	Term Deposit Receipt

TDS	Tax Deducted at Source
TOR	Terms of Reference
UFW	Un-accounted for Water
UPS	Uninterrupted Power Supply
W.E.F.	With effective from
WTP	Water Treatment Plant
FCRI	Fluid Control Research Institute