



**HYDERABAD METROPOLITAN WATER SUPPLY & SEWAGE BOARD**

**e'Tender Notice No:72(4<sup>th</sup> call) /C.G.M.(E)/R.C/AMR-SWC/2016-17 Date:19-04-2016**

**Tender Document**

**for**

**Name of the Work:** Supply, installation, testing, commissioning and five years on site Comprehensive annual Maintenance(including warranty period) of clear water meters size ranging from 25mm dia. to 300mm dia. conforming to ISO: 4064, Class'B' standard with latest amendments or IS 779/IS2373 with latest amendments and have ISI/EEC certification mark with Automatic Meter Reading (AMR) with GSM technology to read remote meter reading over GSM network with GPRS communication technology seamlessly sending data directly to HMWSSB's existing AMR meters Server **SIDE SOFTWARE MODULE** from AMR meter (Or) **to the vendor server duly integrating with HMWSSB Billing System** for bulk consumers & others under HMWSSB jurisdiction.

**VOLUME-I**

**TECHNICAL BID**

**O/o. Chief General Manager (Engg),  
Revenue Circle, HMWS&SB,  
Khairatabad,Hyderabad -04.**

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# **INVITATION TO e'TENDER**



## HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD

### INVITATION TO e'TENDER

e'tender No.72(4<sup>th</sup> call) /CGM(E)/Rev.Cir./AMR-SWC/2016-17, Dated:19-04-2016.

HMWSSB invites Bids from interested firms (Single Entities, Consortium / Authorized Dealers / Suppliers) for supply, installation, testing, commissioning and on site Comprehensive Annual Maintenance(CAM) for five years of clear water meters of sizes ranging from **25mm to 300mm dia.** conforming to ISO : 4064, Class-'B' standard with its latest amendments (or) IS :779 (or) IS 2373 with its latest amendments which have ISI/EEC certification mark with Automatic Meter Reading (AMR) with GSM technology of about **979nos.** CONNECTIONS IN HMWSSB's Jurisdiction under various O&M DIVISIONS (**Remote meter reading over GSM with GPRS communication technology seamlessly sending data directly to HMWSSB's existing AMR meters Server SIDE SOFTWARE MODULE from AMR meter (Or) can send data to HMWSSB Revenue Billing and other Modules as per HMWSSB requirement though web service duly maintaining the server at the vendor end.**

#### 1.0 The bidder shall meet the following qualifying criteria:

- i. The bidder /consortium partner shall be in the business of executing automatic metering solutions for potable water sector in any two years in the recent past **10 years block period.**
- ii. Bidder /consortium partner shall have past experience in Projects of experience with a proven technology for a minimum of **245 nos.AMR meters with GSM** technology (not less than 25mm dia size) conforming to ISO: 4064, Class 'B' standard or IS 779 or IS 2373 in one or more contracts added together in any two years in the past **Ten** years.(specified financial years i.e., they should be immediately preceding the financial year in which tenders are invited) .
- iii. The bidder /consortium partner shall have an annual turnover of minimum **Rs:122.50 Lakhs** in any one year, during the period of past **ten** financial years.(specified financial years i.e., they should be immediately preceding the financial year in which tenders are invited) C.A. certified balance sheets should be furnished along with necessities.
- iv. The bidder / Consortium partner shall have past experience in Projects of experience with a similar technology for a **minimum of 15 months period as successful completion of annual maintenance** for AMR meters in one or more contracts added together in the past ten years block period.

**Note:** a) The above prime conditions shall be satisfied by the bidder or any one partner of the consortium.

b) Tenderers will have to state clearly their willingness to execute the works at the **percentage excess or less** or at par over the Estimate Contract Value indicated

at Schedule-`A`. A higher class contractor is allowed to tender for works falling in lower class without getting himself registered in the lower category.

## **2.0 Scope of works to be carried out under this contract.**

- i. Supplying, installation, testing, commissioning and on site Comprehensive Annual Maintenance (CAM) basis of clear water meters of **979 nos.**(CANs) which varies in sizes from **25mm to 300mm dia.** conforming to ISO : 4064, Class-`B` standard with its latest amendments or IS :779 or IS 2373 with latest amendments which have ISI/EEC certification mark with Automatic Meter Reading (AMR) with GSM technology. Meters are to be fixed at consumer premises and shall enable Remote meter reading over GSM with GPRS communication technology seamlessly sending data directly to HMWSSB's existing AMR meters Server **SIDE SOFTWARE MODULE** kept at HMWSSB data centre from AMR meter (OR) **though web service duly maintaining the server at the vendor end.** The data shall be integrated with existing revenue billing system data base in the specified formats by the HMWSSB officials. As GPRS is faster and cheaper as well as permits real time data acquisition when required. Hence, GPRS should be the default method of data transfer with automatic feed back by SMS in case of GPRS failure. The default communication method should be GPRS; in case of GPRS failure (low signal level) SMS communication should be used.
- ii. All components like GSM modem, AMR unit and Meter should conform to IP68 if they are integrated in a single unit. In case GSM modem/ End unit is designed separately from AMR meter they should confirm to minimum of IP67 protection class.
- iii. If GSM modem / End unit is proposed separately from the AMR meter the communications between meter and GSM modem/ end unit must be wireless. If integrated AMR meter is proposed then Meter, AMR unit and GSM modem can connect together with or without wire and no wire should be exposed outside.
- iv. **Design of suitable software, frequency range of AMR meters and suitable mechanism for transferring the data from Meter to end unit and then to Central Server of HMWSSB.**
- v. Capturing of Meter Readings (data collected) from AMR unit to HMWSSB's existing AMR meters central server available at Head Office, Khairatabad, Hyderabad directly (Or) **to RBS server by web services from vendor server.**
- vi. The AMR unit shall be provided with backup battery working and maintained for a minimum period of Five (5) years.
- vii. Repairs & construction of meter chambers with RCC and tamper proof MS cover including lock & key arrangement as per specifications at **979 nos.** locations are included. Meter chambers are to be constructed for all pipe sizes and for pipe sizes 50mm and above either separate or combined meter strainer chambers are also to be constructed.
- viii. The agency is required to establish a local office (service centre) for attending day to day work.
- ix. The agency is required to place at least two (2) nos.of Software Engineers with

suitable qualifications at HMWSSB's Office, Hyderabad to monitor & analysis of meter reports of day to day work.

- x. The AMR meters are to be maintained (on site Comprehensive annual Maintenance) for a period of **five (5) years** after successfully commissioning of AMR metering system, ie supplying, installing, testing & commissioning of AMR metering system with an initial **Twelve (12) months period**.
- xi. The agency is required to take sufficient protective measures for the safety of the AMR meters and other accessories provided under the contract.
- xii. The agency is required to generate hourly basis daily, weekly, monthly reports as prescribed by HMWSSB officials. Formats shall be Tab / Comma separated value.
- xiii. The successful tenderer is required to impart training to HMWSSB's departmental staff during the maintenance period.
- xiv. The bidder is requested to quote capital cost of AMR meters & Cost for on site Comprehensive annual Maintenance for each unit competitively for five years including the necessary required items as per scope of work at site conditions.
- xv. The agency shall provide AMR meters of one manufacturer's make for a particular size with the specifications mentioned in tender document but all meters shall be integrated with the existing software module of HMWSSB (OR) to the server of vendor.
- xvi. AMR meters including all necessary ancillaries such as Meter interface unit etc shall be erected at a time without any time lag in between.
- xvii. The above work is being taken up under **"DCW-SWC (AMR meters cost) & also partly initially met from Board Funds"** and to be executed for the HMWSSB on the basis of LS Tender percentage basis.
- xviii. The bidder shall quote uniform rate for entire five years contract period.
- xix. The bidder shall quote Cost towards recovery of Capital Cost of AMR meters, strainers (wherever required) & cost for onsite comprehensive annual maintenance for five years including monthly consumption reports for all metered CANs, construction of meter and strainer chambers where ever required as per specifications with lock & key arrangements etc., including all taxes & duties etc complete.
- xx. The rate quoted for L.S. tender on percentage basis is final and the bidder will be eligible for proportionate quoted percentage rate to each size of AMR meter or rounding off to nearest rupee only for entire quantity and also in future to be added quantities as per NIT bid provisions.
- xxi. **Inspection & Testing:**
  - a) The contractor shall arrange the inspection of manufacturer's factory premises to the Officials of HMWSSB of AMR meters project of HMWSSB/Quality Control officials of HMWSSB/any Third Party Inspection agency appointed by HMWSSB to inspect the water meters and other material at manufacturing premises and to witness the required tests as per Specifications and as per standard tests (ISO standards etc;) as applicable for water meters with their own cost, if required by the Board.

- b) The contractor shall be responsible to arrange the inspection at Manufacturers Premises for a minimum number of two officers for inspection call at their own cost.

### **3.0 SCHEDULE OF IMPORTANT DATES FOR THE BID :**

Issue of Bid Documents ie down load start from e'procurement platform ie <a href="http://www.eprocurement.gov.in">www.eprocurement.gov.in</a>	21-04- 2016 @ 10.00AM
Last date for submission of Bids through on-line	09-05-2016 @ 3.00PM
Technical bid opening date & time	09-05 -2016 @3.30PM
Price bid opening date & time	After completion of technical bid evaluation and should be approved by tender committee tentavely on or after 16-05-2016 @3.30PM.

- a) Further details can be obtained from the office of the Chief General Manager (Engg.), Revenue Circle, HMWS&SB, Khairatabad, Hyderabad- 500004, during office working hours.
- b) All those bidders who are interested to participate through e'bidding for the subject work can participate in the pre-bid meeting to seek clarifications on the bid, if any.
- c) Technical Bids shall be accompanied by proof of Eligibility.
- d) Hard copies shall be accompanied by Earnest Money Deposit (EMD) of **Rs:4,90,300=00** (Rupees :Four lakh Ninety Thousand and Three hundred only) in the form of DD / BG drawn in favour of HMWSSB, Hyderabad. The same shall be uploaded through on-line with e'procurement platform and EMD in original shall be enclosed in a sealed cover at the time of submission of hard copies to the tender inviting authority before opening date & time of price bid.
- e) HMWSSB reserves the right to reject, cancel at any time any or all Bids with out assigning any reasons thereof.

# **SECTION -I**

## **Instructions to bidders**



**SECTION -I**  
**Instructions to bidders**

**1.0 Introduction**

1.1 HMWSSB owns and operates water supply and sewerage system serving the twin cities of Hyderabad and Secunderabad comprising of Greater Hyderabad Municipal Corporation including erstwhile 12 surrounding municipalities and MCH core area having a population more than 8 millions. HMWSSB is having close to about **8.60 lakh** consumers of various categories including the proposed **979** connections in various O&M Divisions under HMWSSB jurisdiction. HMWSSB supplies nearly **340** MGD of water to the city on alternate day supply to the most of the area and daily water supply in some areas. Earlier water is being supplied near by sources of Osmansagar and Himayathsagar reservoirs. The other major sources are Majeera Barrage and Singoor Dam from Manjeera River. From Manjeera Barrage, Phase-I & II water supply improvement schemes were completed and supplying water to twin cities in the year 1965 and 1983. From Singoor Dam, Phase-III & IV water supply improvement schemes were taken up completed during the year 1990 & 1993. Water Supply bulk connections were given during the course of time on these trunk lines for the enroute villages, Municipalities, Industries, Housing colonies etc., HMWSSB further taken up Phase-I & II Krishna Water Supply Schemes and completed in 2004 & 2007. Krishna Phase –III completed in 2015 and also Godavari Phase-I is partly completed in 2015 & Godavari Phase-I & II are under progress for completion.

**1.2 Brief description of HMWSSB's Water Supply Systems:**

HMWSSB water supply system consists of four sources of surface water. Around 35 MGD water is the designed capacity from Osman Sagar and Himayat Sagar lakes that surrounds the city and water from these lakes flows through gravity to the consuming zones. Presently these two reservoirs are almost dried up and are being operated at far below than their designed capacity. The other two major sources are the reservoirs built at Manjeera barrage and Singur dam, both on the Manjeera river. Four schemes for four phases have been built on these two reservoirs to bring water supply to the city, covering a total distance of 50 KM to 70 KM. The total drawal from both Manjeera and Singur put together is 120 MGD.

HMWSSB also implemented Krishna Water Supply schemes Phase I and II each designed to supply 90 MGD.

As a pilot AMR metering system project initially proposed (2009) and successfully commissioned and maintained for five years (2014) for 210 connections under O&M Divn.NO's.VIII, XV & XVI. These 210 connections with AMR meters are under functioning with the same terms & technology of pilot project.

Also, it is under functioning for AUTOMATIC METER READING (AMR) of about 1977 nos. CONNECTIONS are executed during 2013 to 2015 and are under functioning on par with the proposed terms and technology of AMR metering system.

Presently it is proposed to call for AUTOMATIC METER READING (AMR) of **979 nos.** CONNECTIONS on Capital Cost & on site Comprehensive annual Maintenance Cost basis under which the following connections are to be taken up.

### 1.3 Schedule –A (Bill of quantities)

SI.No.	Size of AMR meter	Qty.	Per
(1)	25mm dia with GSM Technology	725	Nos
(2)	40mm dia with GSM Technology	85	Nos
(3)	50mm dia with GSM Technology.	94	Nos
(4)	75mm dia with GSM Technology.	16	Nos
(5)	100mm dia with GSM Technology.	32	Nos
(6)	150mm dia with GSM Technology	11	Nos
(10)	200mm dia with GSM Technology.	9	Nos
(11)	250mm dia with GSM Technology.	5	Nos
(12)	300mm dia with GSM Technology.	2	Nos
	<b>Total:</b>	<b>979</b>	<b>Nos.</b>

**1.4 Language of Bid:** Bid shall be written in English. Information in any other language shall be accompanied by its translation in English. Only English text shall be governing.

### 2.0 Bid Validity Period:

The Bids shall be kept valid for **90 (Ninety days)** Calendar days from the date of opening of Bid. i.e. Price bid. Thereafter validity may be extended for further period as mutually agreed upon between the Bidder & HMWSSB.

### 3.0 Documents:

The Bid document comprises of the following: -

- 1) Bid Notice
- 2) Instructions to Bidders.
- 3) Bid form.
- 4) Appendix 'A' & 'B'
- 5) Form (ECS).
- 6) Contract Agreement Form
- 7) Bankers Guarantee Form.
- 8) General conditions of Contract.
- 9) Technical Specifications.
- 10) Special Conditions.
- 11) Technical Proposal submission Form.
- 12) Schedules of Supplemental Information forms.
- 13) Schedule – U (Manufacturer's authorization form).

- 14) Annexure-1 (J.V/Consortium Agt.form)
- 15) Annexure-2 (Undertaking)
- 16) Annexure 'A' – General Data Sheet.
- 17) Annexure 'B'. – Technical Data Sheet.
- 18) Annexure 'C'. – No. of Water Meters.
- 19) Annexure 'D'. – Terms & Conditions for J.V/Consortium.
- 20) Bill of Quantities ( Commercial template, Vol.-II )
- 21) Abbreviations.
- 22) Addenda, if any.

Only one bid shall be uploaded and to be submitted by each of the bidder / consortium. Hard Copies along with the original DD/BG towards EMD shall be submitted to the tender inviting authority, HMWSS Board in sealed envelope on or before price bid opening date.

#### 4.0 Earnest Money Deposit (EMD):

- a) Each Bid must be uploaded & accompanied by a receipt for a deposit as Earnest Money Deposit of **Rs:4,90,300=00 (Rupees :Four lakh Ninety Thousand and Three hundred only)** paid in Demand Draft / Bank Guaranty in any Scheduled bank / Nationalized bank recognized by the Reserve Bank of India only.
- b) Bids not accompanied by an Earnest Money Deposit shall be rejected and become non-responsive.
- c) If during the Bid validity period, the Bidder withdraws his Bid or the successful Bidder fails to accept the Contract within 30 calendar days after receiving notice of the award of Contract and fails to submit the Final Contract Deposit, the Earnest Money shall be forfeited and the Bidder will be disqualified from bidding for further works in the Board.
- d) After the award has been finalized, the Earnest Money Deposit will be returned to the respective Bidders, with the exception of successful Bidders.
- e) The successful Bidder's Earnest Money will be retained as security for the due signature of the Contract and for making the contract deposit in accordance with general conditions of contract.
- f) The E.M.D. of unsuccessful bidders will be released only on issue of work order or acceptance letter to the successful bidder.
- g) If the successful bidder fails to sign the agreement & furnish contract deposit within 30 days after receiving notice of the award of contract the E.M.D. may be forfeited & the bidder will be disqualified from bidding for any work in the Board & work under reference will be carried out at his risk & cost treating this clause as notice.
- h) On opening of bid if it is found that bids has not clearly visible through on-line site or if any related information needs to be required documents in relating to hard copies then the bidder shall be intimated to comply with the said requirements within stipulated time period (maximum 7 days) from the opening of bid, if he fails to do so then the bid become non-responsive.

- i) The Bidders / Contractors shall note that the Taxes levied by the Government shall be borne by them for which no reimbursement shall be made by the Board. They should therefore, take this factor into account while quoting for the work. No interest will be paid on any Bid deposit / guarantee.

#### **5.0 Income Tax Clearance Certificate**

BIDDER SHALL FURNISH LATEST INCOME TAX RETURN FILED WITH THE INCOME TAX DEPARTMENT, GOI.

#### **6.0 Submission of bids:**

**After successfully participating in bidding through on-line with e' procurement web site, uploaded hard copies shall be submitted to the tender inviting authority on or before opening of price bids (date mentioned in NIT) with the following procedure:**

- a) Hard copies pertaining to bid (all uploaded documents **excluding price bid**), EMD demand draft/BG in **original**, U - form in original in case of non- meter manufacturer's other documents if any shall be submitted in one **sealed** envelope. The envelope should show the name of the Bidder and his address and subscribe: "**Bid for AUTOMATIC METER READING (AMR) of about 979 CONNECTIONS IN HMWS&SB on Capital Cost & on site Comprehensive annual Maintenance Cost basis**" In addition the lower left-hand corner of the envelope or other container should indicate the **bid opening date**.

- b) Bidders shall not be allowed to fill in or seal their bids at the Board office.

- c) Bidders are requested to present the bids well in time.

Further, informed that it is **NOT to submit the PRICE – BID in hard copy** (ie **price bid should not be submitted in physical format through hard copies**).

- d) The **sealed** envelope should be submitted in the drop box at office of **the Chief General Manager (Engg.)** at the address given below:

**The Chief General Manager (Engg.),  
Revenue Circle, HMWS&SB,  
Kharatabad , Hyderabad – 500 004.**

## 7. MANDATORY CONDITIONS:

The bid shall be rejected if the bidder:-

- a) Stipulates the validity period less than 90 days.
- b) Stipulates own condition/conditional bid.
- c) There are any criminal cases pending.
- d) The eligibility and qualification criteria are not in accordance with various Clauses
- e) Does not submit adequate amount of EMD in the form of original D.D / B.G as per condition in the bid.
- f) Identification and financial data sheet with duly certified by the Chartered Accountant is not enclosed.
- g) Does not disclose the full name / names and address / addresses of proprietor / partners / Directors in case of proprietorship / partnership / Pvt. Ltd. / Public Limited concern firm and the engineering qualifications, if any.
- h) The Sales Tax / VAT Registration Certificate is not enclosed.
- i) The Firm Registration certificate / Manufacturing Registration Certificate / Contractor Registration certificate of the bidder is not enclosed
- j) Does not have experience of executing similar type of work as per qualification criteria. *The experience certificates shall be issued by the competent authority not less than the Executive Engineer / General Manager (E) or any superior rank officer.*
- k) The Affidavit is not enclosed.
- l) The Power of Attorney is not enclosed in the case of J.V / Consortium.
- m) The history of criminal cases is not enclosed.
- n) The record of litigation and arbitration is not enclosed.
- o) Manufacturer's authorization form (Schedule-U) is not enclosed. In case if the bidder is not a manufacturer of water meters conforming to ISO 4064, Class 'B' Standards etc as mentioned in the Bid document, the Manufacturers Authorization Form (Schedule-U or U-form) required to be obtained from the reputed water meters manufacturer who successfully manufacture water meters of various sizes confirming to ISO: 4064, Class 'B' etc; standards as mentioned in the Bid document during the past ten years with an established water meters factory.
- p) *If all Xerox copy documents furnished by the bidder are not self attested or not notarized by Notary, Government of India.*
- q) Uploaded certificates and other relevant documents should be clearly visible. Utmost care should be taken by the Tenderer while uploading the documents after scanning regarding visibility when downloaded at this office.
- r) ISI/ EEC/MID - higher standards approvals not furnished.

## 8. Instructions to the Bidders

8.1 After successfully participating in bidding through on-line with e' procurement web site, uploaded hard copies shall be submitted to the tender inviting authority on or before opening of price bids (date mentioned in NIT) with the following procedure:

- a) Hard copies pertaining to bid (all uploaded documents **excluding price bid**), EMD demand draft/BG in **original**, if any shall be submitted in one **sealed** envelope. On the envelope should show the name of the Bidder and his address and subscribe: **"Bid for AUTOMATIC METER READING (AMR) of about 979 CONNECTIONS IN HMWS&SB on Capital Cost & on site Comprehensive annual Maintenance Cost basis"** In addition the lower left-hand corner of the envelope or other container should indicate the **bid opening date**.
- b) Bidders shall not be allowed to fill in or seal their bids at the Board office.
- c) Bidders are requested to present the bids well in time.
- d) Further, informed that it is **NOT to submit the PRICE – BID in hard copy (ie price bid should not be submitted in physical format through hard copies)**.
- e) The **sealed** envelope should be submitted in the drop box at office of **the Chief General Manager (Engg.)** at the address given below:

**The Chief General Manager (Engg.),  
Revenue Circle, HMWS&SB,  
Khairatabad , Hyderabad – 500 004.**

### 8.2 Technical documents:

- a) Proofs of Qualification Criteria.
- b) Valid Sales Tax registration certificate / CST / VAT registration Certificate.
- c) EMD for Rs:4,90,300=00 and Latest Bank solvency certificate(not prior to six months period from the date of NIT)
- d) **Solvency for Rs:81.72 lakhs** from any scheduled Bank or Nationalized bank recognized by the Reserved Bank of India ,GOI. (or) As at 31-03-2015 C.A. certified balance sheet.
- e) The Partnership deed and Power of Attorney in the name of signatory in case of partnership firms.
- f) PAN Card & latest Income Tax return filed with the Department of Income Tax, GOI.(**optional as per Govt. Orders**)
- g) ISI / EEC/MID – higher standards approvals.
- h) And other documents required as per bid document of NIT & its corrigendum's if any.

8.3 Commercial bid: **Price bid should be uploaded through on-line only. Bidder should not submit along with hard copies. The bidder shall indicate the bid price in Indian Rupees only.**

- 8.4 Opening of Bids: Only eligible and responsive bidder's bids shall be opened through e' procurement platform on or after technical evaluation shall be approved by the tender committee ie tentatively **11.05.2016 at 3:30 PM.**

**9. Uploading the e' bid / Filling up the bid**

- a. Utmost care shall be taken while uploading of the e'bid through e'procurement platform and the uploaded documents **EXCLUDING** price bid shall be submitted to the tender inviting authority on or before opening of the price bid.
- b. Bidders are expected to fill in their bids carefully and scrutinize them before delivering them.

**10 Conditional bid rates**

Bids containing contradictory and vague stipulation and hedging conditions such as "subject to prior sale", "Offer subject to confirmation at the time of order ", "Rates subject to market fluctuations", etc. **are liable to be rejected outright and conditional bids are become "non-responsive"**.

**11 Modification of Documents.**

Modifications of specifications and extension of the closing (Due) date of the Bid, if required, will be made by an addendum; Copies of each addendum will be displayed on HMWSSB web site and e'procurement web site. These shall form part of the Bidder documents. The Bidder shall not add to or amend the text of any of the documents except in so far as may be necessary to comply with any addenda.

**12. Taxes and Duties on material.**

- a) Regarding taxation, the prices quoted by the Contractor shall include all custom duties, import duties, excise duties, business taxes, income, service, VAT and other taxes & duties. Nothing in the contract shall relieve the contractor from his responsibility to pay any taxes & duties that may be levied in the employer's country on profits made by him in respect of contract.
- b) The contractor shall perform such duties, in regards to such deductions thereof as may be imposed on him by such laws and regulations in both India and abroad.
- c) All charges on account of Sales Tax and other duties of material obtained from the work from any source including the tax applicable as per Andhra Pradesh Sales Tax Act/Rules on the transfer of property in goods involved in the execution of works Contract (re-enacted) Act 1991 shall be borne by the Contractor.
- d) The bidder is completely responsible for payment of all types of taxes and duties etc; and should quote price taking in to consideration.

### 13. Evaluation of Bid.

In comparing bids, the Board shall consider such factors as the efficiency and reliability of instrument and methods proposed, compliance with the specifications, quality and the bidder's capacity to perform vis-a-vis the time of completion.

### 14. Payment Terms:

- 14.1 The entire cost of the AMR metering project shall be borne by the bidder and shall be completed in (12) months of initial project period. Payment for the AMR metering project Capital Cost and on site Comprehensive annual maintenance Cost for five years as quoted by the bidder subject to satisfactory performance as per contract conditions or otherwise as specified in 'Special Conditions of Section-V, General Conditions of Contract at point (8) & price bid in Vol-II' in the bid.

**Note:** The date of commissioning of the project would be for the supply, erection, testing of 979 AMR meters including deployment of software & integration with HMWSSB's RBS and completion of all related civil & mechanical works then completion report given by the project executing authority Engineer-in-charge i.e General Manager (Engg.).

- a) 60% of contract value will be paid after supplying, installing, testing & commissioning of AMR meters and after satisfactory performance observation period for three months from the date of commissioning period within initial 12 months on prorated basis.
- b) 8% of contract value will be paid after successful completion of first year on site comprehensive annual maintenance period from the date of commissioning.
- c) 8% of contract value will be paid after successful completion of second year on site comprehensive annual maintenance period from the date of commissioning.
- d) 8% of contract value will be paid after successful completion of third year on site comprehensive annual maintenance period from the date of commissioning.
- e) 8% of contract value will be paid after successful completion of fourth year on site comprehensive annual maintenance period from the date of commissioning.
- f) Balance 8% of contract value will be paid after successful completion of fifth year on site comprehensive annual maintenance period from the date of commissioning.

- 14.2 Currency of Payment: -The Payment will be done in Indian Rupees only.

### 15. Award of Contract

- a) Notification of Award will be made in writing to the successful bidder.



- b) The Contract will be awarded to the qualified and responsive bidder offering the lowest evaluated Bid.
- c) A responsive Bid is one which accepts all the terms and conditions of the Bid documents without any major modifications. A major modification is one which affects in any way the price, quality, quantity or completion of works which limits in any way, any responsibilities or liabilities of the Bidder or any rights of the Board, as specified in the Bid documents. The Board may waive any minor informality in a Bid, which does not constitute a major modification.
- d) In the event of the Bid being accepted, full amounts of Contract deposits, Legal & Stationary charges must be paid and the Contract must be signed within 30 calendar days after receipt of such intimation of acceptance of offer, by the proprietor / Limited company / all the partners of the firm or the signatory holding a power of Attorney.
- e) Postponement of the payment of the full security deposit or the execution of the contract will not be permitted by any reason.

#### **16. Signing of Contract**

The successful bidder shall be required to execute the contract with C.G.M (E), Revenue Circle within 30 calendar days of receipt of intimation to execute the contract, failing which the bidders E.M.D. may be forfeited & the bidder may be disqualified from bidding for any work in the Board.

#### **17. Brand names**

The bidder shall ensure that the branded materials if prescribed in the specifications shall be in compliance with relevant regulatory standards.

#### **18. Solvency Certificates:**

Bidders shall have to produce along with their bid up to date **Solvency Certificate (Issued maximum 6 months prior to the due date of bid)** of at least **Rs:82.72 lakh** from any Nationalized / Schedule Bank recognized by the RBI/GOI. (or) As at on dt:31-03-2015 C.A certified balance sheet.

#### **19. Post-qualification criteria**

The post qualification criteria towards bidder's technical and financial ability are mentioned in the Bid Notice and in terms and conditions in the **Section-V "Special conditions"** in the bid.

#### **20. Post Bid Correspondence.**

- a. Bid shall be termed to be under consideration from the opening of the bids, until such time an official announcement of award is made. While bids are under consideration, bidders and their representatives or other interested parties, are advised to refrain from contacting by any means the Board's personnel or representatives on matters related to the bids under Consideration.

- b. The officials of the Board if necessary will obtain clarification of bid by requesting such information from any or all the bidders either in writing or through personal contact as may be necessary. The bidder will not be permitted to change the substance of his bid after bids have been opened. Non compliance with the provision is a cause for disqualification.

## **21. Bidding under different names**

- a) Firms with common proprietor / partner or connected with one another either financially or as principal and agent or as master and servant or with proprietor/partners closely related to each as husband, wife, father, mother and Minor son / daughter and brother / sister and minor brother / sister, shall not bid separately under different names for the same Contract.
- b) If it is found that firms as described in point (a) above have bided separately under different names for the same Contract, all such bid(s) shall stand rejected and bid deposit of each such firm / establishment shall be forfeited. In addition such firms /establishments shall be liable for further penal action including blacklisting.
- c) If it is found that clearly related persons as in point (a) above have submitted separate bid under different names of firms/establishments but with common address for each establishment/firm, though they have different addresses, are managed or governed by the same person/persons jointly or severally, such bids shall be liable for action as in para b) above including Similar action against the firms / establishments concerned.
- d) If after the Award of Contract, it is found that the accepted bid violated any of the conditions in pares a), b) or c) above, the contract shall be liable for cancellation at any time during its currency in addition to penal action against the contractors as well as related firms / establishments.

## **22. Jurisdiction of Courts**

- a. In case of any claim, dispute or difference arising in respect of the contract, the cause of action thereof shall be deemed to have arisen in Hyderabad and all legal proceedings in respect of any such claim, dispute or difference shall be instituted in a competent court in the city of Hyderabad only.
- b. If any dispute, difference or claim is raised by either party relating to any matter arising out of the contract, the aggrieved party may refer such dispute within a period of 7 days to the concerned officer who shall constitute a committee comprising of 3 officers. The committee shall give decision in writing within 60 days.
- c. Appeal on the order of the committee may be referred to M.D. within 7 days. The decision given by MD shall be final & binding upon the parties.

**23. Import License**

The bidders shall have to make their own arrangements to secure import license and/or release of controlled or scarce raw materials or parts if required by them for fulfillment of their contract.

**24 Safe custody**

All the charges for safe custody and withdrawal of and for the collection of interest etc. on the paper deposit will be payable by the contractors.

**25 Payment of Bills & other claims through ECS mode:**

The payment of bills and other claims arising out of the contract will be made by electronic clearing service (ECS) in the name of contractors payable to accounts & name of bank informed by the Successful contractor. Successful Bidder therefore will have to furnish the information as regards the name and complete address of their Bank, its branch and their Bank Account no. etc. in the prescribed form. They will also have to submit fresh information when there is any change in these regards.

## **S E C T I O N -II**

### **REQUIREMENT OF QUALIFYING CONDITIONS**

## **REQUIRED QUALIFYING CONDITIONS**

The following conditions will be the requirement of qualifying conditions of the contract, which will also supersede related general conditions of the contract: -

### **1. Qualifying Criteria:-**

1.1 The bidder shall meet the qualifying criteria towards their eligibility.

- a) The bidder /consortium partner shall be in the business of executing automatic metering solutions for potable water sector in any two years in the recent past **10** years block period.
- b) Bidder /consortium partner shall have past experience in Project of AMR meters with GSM technology for a minimum of **245 meters**. (Not less than 25mm dia size) conforming to ISO: 4064: Class 'B' standard or IS: 779 /IS2373etc; in one or more contracts added together in any two years during the past **ten** years. (Specified financial years i.e., they should be immediately proceeding the financial year in which tenders are invited).
- c) The bidder /consortium partner shall have an annual turnover of minimum **Rs:122.50Lakhs** in any one year during the period of past **ten** financial years.(specified financial years i.e., they should be immediately preceding the financial year in which tenders are invited).
- d) **The bidder / Consortium partner shall have past experience in Projects of experience with a similar technology for a minimum of 15 months period as successful completion of annual maintenance for AMR meters in one or more contracts added together in the past ten years block period.**

Note: The above prime conditions shall be satisfied by the prime bidder or any one partners of the consortium.

1.2 If the bidder is a Joint Venture then they shall meet the following criteria.

- a) One of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.
- b) The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge;
- c) The joint venture agreement should indicate precisely the role of all members of JV in respect of planning, design, construction equipment, key personnel, work execution, and financing of the project.
- d) A copy of the Joint Venture Agreement entered into by the partners shall be submitted with the bid. Alternatively, a Letter of Intent to execute a joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed Agreement.

- e) Sub-contractor's experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria, except to the extent stated above.
- f) Attach the power of attorney of the signatures of the bid authorizing signature of the bid on behalf of the joint venture.
- g) Attach the agreement among all partners of the joint venture [and which is legally binding on all partners] alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed Agreement.
- h) The documents establishing the experience of above, including its details, exhibiting the work order number and date, cost of the work, contract period, performance certificates, etc, shall be annexed by the bidder, while submitting the offer. All the documents and certificates shall be certified by the competent authority.

- 2. **Solvency** : Rs:82.72 lakhs
- 3. **Annual Turnover** : Rs:122.50 lakhs
- 4. **Bid Validity** : 90 days.

The bid shall be kept valid for 90 days from the date of opening of the bid.

- 5. **Contract / Completion Period** : 5 years or (60 months) on site comprehensive annual maintenance contract period after commissioning of AMR meters.
- 6. **Terms of Payment** : As per (A) General – point (8) of General Conditions of Contract, Special Conditions and other bid conditions.
- 7. **Penalty** : As per general conditions of the contract and bid conditions & Special Terms & Conditions etc.
- 8. **Retention Money Period** : Total contract period.
- 9. **Guarantee Period**:-60 months or five years from the date of satisfactory commissioning of the work on prescribed format. The guarantee period will start from successful installation, testing and commissioning of AMR water meter under this contract.

10. **Inspection:-**

All the charges towards stage / final inspection until dispatch clearance shall be borne by the contractors including to and fro travel, inland transport, lodging and boarding, etc. for minimum of two Engineers / Officials and total cost offered for the bid should be inclusive of the same.

11. **Cost:-**

- a. The quoted Cost should be firm & no variation of any sort shall be allowed throughout the contract period. The cost shall also include loading, unloading, packing & forwarding, transportation, freight, transit insurance and all types of taxes, duties, levies, etc.
- b. No escalation in the cost of whatsoever nature will be allowed while completing the works.

12. It is mandatory for the bidder to fill up all the accompanying data sheets (essential for bid) properly and precisely including furnishing the necessary attachments as described.

**S E C T I O N - III**

**GENERAL CONDITIONS OF THE CONTRACT**



## SECTION-III

### GENERAL CONDITIONS OF THE CONTRACT

#### A. GENERAL OBLIGATIONS

##### 1. Works to be carried out

The works to be carried out under this contract shall except or otherwise provided in these conditions include all labour, materials, tools, plant, equipment and transport which may be required in preparation of and for and it the full and entire execution and completion of the works. The description given in the schedule of works / items/quantities and the bills of quantities shall unless otherwise stated be held to include wastage on materials, carriage, and cartage, fitting and fixing in position and all other labour necessary in and for the entire execution and completion as aforesaid in accordance with good practice and recognized principles.

##### 2. Performance Security deposit / Contract Deposit

The contractor shall pay @ **10% of contract value** at the time of concluding agreement, sum as security for due fulfillment of the contract which will remain with the Board till completion of the contract period. The EMD of the successful bidder can be converted into performance security deposit or the successful bidder can give a bank guarantee from any Scheduled Bank / Nationalized Bank for an equal amount of 10% of contract value, provided the banker's guarantee is renewed as required and / or directed from time to time so as to cover the entire period of contract including the extended period, till completion of the contract.

##### 3. Inspection of site and sufficiency of the bid

- (a) The contractor shall inspect and examine the site and its surroundings and shall satisfy himself before submitting his bid as to the nature of the site, the quantities and nature of the work and materials necessary for the completion of the work and in general shall obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect his bid.
- (b) The contractor shall be deemed to have satisfied himself before bidding or to the correctness and sufficiency of his bid for the works and of the rates and prices quoted in schedule of works / items / quantities or in bill of quantities, which rate and prices shall, except or otherwise provided, cover all his obligations under the contract and all matters and things necessary for proper completion and maintenance of the works.

##### 4. Contractor's supervision

The contractor shall himself supervise the execution of works or shall appoint a competent agent approved by the Board to act **on behalf of him or** in the opinion of the Board the contractor has himself not sufficient knowledge and experience to be capable of receiving instructions or cannot give his full attention to the works, the contractor shall at his own expense employ or his accredited agent / an engineer or a suitably qualified and experienced person approved by

the Board. Orders given to the contractor's agent shall be considered to have the same force or if these had been given to the contractor himself.

## **5. Safety provisions**

- a) The contractor shall at his own expenses arrange for the safety precautions as required by the Board, in respect of all labour directly or indirectly employed for performance of the works and shall provide all facilities in connection therewith. In case the contractor fails to provide such facilities, the Board shall be entitled to do so and recover the costs thereof from the contractor.
- b) The bidder shall note that the Board shall not be responsible for any mishap or accident to workmen of the contractor working at site, while performing these jobs and no compensation shall be payable by the Board in case of mishap or accident, the amount of compensation decided by the concerned authorities shall be borne by the contractor.
- c) The successful bidder shall take all the precautions to avoid any damage to Board's property while working. If any damage is noticed, the charges for setting right the same will be recovered from their bills.
- d) The successful contractor shall take utmost care not to cause any nuisance due to noise, welding operations etc. They shall take all the proper precautions in this respect.

## **6. Patent rights and royalties**

The contractor shall indemnify the Board from against all claims and proceedings for or on account of infringement of any patent rights, design trade mark or name of other protected rights in respect of any equipment, machine work or material or installation used for or in connection with the work or any of them and from and against all claims, proceedings, damage, costs, charges and expenses whatsoever in respect of or in relation thereto.

## **7. Production of vouchers**

The contractor shall when required by the Board produce all quotations, invoices, vouchers, and accounts or receipts etc. to prove that the materials supplied by him are in conformity with the specifications laid down in the contract.

- 8. The entire cost of the AMR metering project shall be borne by the bidder and shall be completed in **(12) months** of initial project period. Payment for the AMR metering project Capital Cost and on site Comprehensive annual maintenance Cost for five years as quoted by the bidder subject to satisfactory performance as per contract conditions or otherwise as specified in 'Special Conditions of Section-V, General Conditions of Contract at point (8)&price bid in Vol-II' in the bid.

**Note:** The date of commissioning of the project would be for the supply, erection, testing of **979** AMR meters including deployment of software (or) Integration of software with web services and completion of all related civil & mechanical works then completion report given by the Engineer-in-charge.

- a) 60% of contract value will be paid after supplying, installing, testing & commissioning of AMR meters and after satisfactory performance observation

period for three months from the date of commissioning period within initial 12 months on prorated basis..

- b) 8% of contract value will be paid after successful completion of first year on site comprehensive annual maintenance period from the date of commissioning.
- c) 8% of contract value will be paid after successful completion of second year on site comprehensive annual maintenance period from the date of commissioning.
- d) 8% of contract value will be paid after successful completion of third year on site comprehensive annual maintenance period from the date of commissioning.
- e) 8% of contract value will be paid after successful completion of fourth year on site comprehensive annual maintenance period from the date of commissioning.
- f) Balance 8% of contract value will be paid after successful completion of fifth year on site comprehensive annual maintenance period from the date of commissioning.

**9. Water and electricity**

Electricity supply and water supply and every material shall have to be arranged by the contractor on cost as per prevailing tariff rates. The necessary electric cable from electric supply source to site, water pipes etc. shall have to be arranged by the contractor.

**10. Disturbance to regular functioning**

The contractor shall ensure while these works are in progress that the other functional aspects of the pumping stations and distribution of water supply are not disturbed / hampered. In case such a disturbance is envisaged they will give sufficient prior intimation to make alternate arrangements.

**11. Minor variation**

The bid specifications for the works included in this bid are prepared with care with a view not to create any additional work. However if any minor variation is required while the work is physically progressing the contractors will have to undertake these modifications without any extra cost to the Board. They should therefore study the specifications thereby and quote accordingly.

**12. Contractor's other liabilities and insurance:**

- a) From commencement to completion of the work, the contractor shall take full responsibility for the care thereof and for taking precautions to prevent loss or damage and to minimize the loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the works or any part thereof and all the Board's tools and plants from any cause whatsoever (Save and except Expected Risk) and shall at his own cost repair and make good the same so that at completion, the works shall be in good order and condition and in conformity in every respect in the requirements of the contract and the instructions of the Engineer.
- b) In the event of any loss or damage to the works or any part thereof or to any tool and plant or to any material or article at the site from any of the excepted risk the following provision shall have effect

- i. The contractor shall as may be directed in writing by the Engineer, remove from the site any debris and so much of the works as shall have been damaged, taking to the HMWSSB stores such multiple tools and plants articles and/or on materials as may be directed.
  - ii. The contractor shall, as may be directed in writing by the Engineer proceed with the erection and completion of the works in accordance with the provisions and conditions of the contract.
- c) Before commencing execution of the work, the Contractor shall without in any way limiting his obligations and responsibilities, insure against any damage, loss injury which may occur to any property (Private, Government and/or Board) or to any Person (including any employee of the Board by or arising out of the contract).
- d) If the contractor has a Blanket Insurance Policy for all his Works and policy covers all the items to be insured under these conditions, the said policy shall be assigned by the contractor in favor of the Board; provided, however, if any amount is payable under the policy by insurers in respect of works other than the works under this contract the same may be recovered by the contractor directly from insurers.
- e) Provided always that the Contractor shall not be entitled to payment under the above provisions in respect of so much loss or damage as have been occasioned by any failure on his part to perform his obligations under the contract or not taking precautions to prevent loss or damage or minimize the amount of such loss or damage.
- f) Where the Board's equipment, building or part thereof is rented by the Contractor or is allowed to be used by him he shall insure the entire building if the building or any part thereof is used by him for the purpose of storing or using materials or combustible nature as to which the decision of the Engineer shall be final and binding.
- g) The Contractor shall indemnify and keep indemnified the Board against all losses and claims for injuries or damage to any person or property whatsoever which may arise out of or in consequence of the construction and maintenance of the work and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto.
- h) Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Board against any compensation or damage caused by the Excepted Risks.
- i) The Contractor shall at all times indemnify the Board against all claims, damages or compensation under the provisions of Payment of Wages Act 1936, Minimum Wages Act 1948, and Employers Liability Act 1938. The Workmen's Compensation Act 1923, Industrial Dispute Act 1947, Indian Factories Act 1948, and Maternity Benefit Act 1951 or any modifications thereof and rules made there under from time to time or as a consequence or any accident or injury to any workmen or other persons in or about the works, whether in the employment of the contractor or not, save and except where such accident or injury have resulted from any act of the Board, their agents or servants and also against all costs, charges and expenses of any suit, Action or proceedings arising out of

such accident or injury and against all sum or sums which may with the consent of the contractor be paid to his obligations and liabilities as above provided. The Contractor shall insure against all claims damages or compensation payable under the various acts mentioned above or any modifications thereof or any other law relating thereto.

- j) The aforesaid insurance policies shall provide that they shall not be cancelled till HMWSSB has agreed to their cancellations.
- k) The Contractor shall prove to the Managing Director from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till the expiry of Contract Period.
- l) The Contractor shall ensure that similar insurance policies are taken out by his sub-contractors (if any) and shall be responsible for any claims or losses to the Board resulting from their failure to obtain adequate insurance protection in connection thereof. The Contractor shall produce or cause to be provided by his sub-contractor (if any) as the case may be.
- m) If the contractor and/or his sub-contractors (if any) shall fail to effect and keep in force the insurance referred to above for any other insurance which he/they may require to effect under the terms of the contract then and in any such case the Board can recover the amounts from payment due to the contractor without any obligation to pay such premiums or premia as are required.

### **13. Changes in constitution**

When the Contractor is a partnership firm, the prior approval in writing of the competent officer of the Board shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or Hindu Undivided Family business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the work hereby undertaken by the Contractor. If prior approval as aforesaid is not obtained the contract shall be deemed to have been assigned in contravention of the prevailing conditions.

### **14. Submission of final completion drawings.**

On completion of the work, the contractor shall furnish free of cost 3 sets of final completion reports & drawings showing all the details checked and signed by the Engineer within one month of completion of work.

### **15. Details to be Confidential.**

The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purpose thereof, & shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of the Employer or the Engineer. If any disputes arises as to the necessity of any publication or disclosure for the purpose of the contract the same shall be referred to the Employer whose determination shall be final.

**16. Photographs of the works.**

No photographs of the work or any part thereof or equipment employed thereon shall be taken or permitted by the contractor to be taken by any of his employees or any employees of his sub-contractor without the prior approval of the Engineer in writing and no such photographs shall be published or otherwise circulated without the approval of the Engineer in writing.

**17. Contractor to keep site Clear.**

During the execution of the works the Site should be reasonably free from all unnecessary obstruction and the bidder shall store or dispose of any Equipment and surplus materials and clear away and remove from the site any rubbish or temporary works no longer required.

**18. Clearances of site on completion.**

Upon the issue of any taking over certificate the Contractor shall clear away and remove from that part of the site to which such taking over Certificate related to all contractor's equipment, surplus materials, rubbish and temporary works of every kind and leave such part of the site and works clean and in a workman like conditions to the satisfaction of the Engineer. If the contractor does not clear the site within 15 days, all material will be confiscated and no compensations shall be paid and the site will be cleared at risk and costs of the Contractor.

**19. Inspection & Testing:**

- a) The contractor shall arrange the inspection of the Board Officials for AMR meters project by Quality Control officials of HMWSSB / Engineers of HMWSSB or any Third Party Inspection agency appointed by HMWSSB to inspect the water meters and other material at manufacturing premises and to witness the required tests as per Specifications and as per standard tests (ISO standards etc;) applicable for water meters at their own cost, if required by the Board.
- b) The contractor shall be responsible to arrange the inspection at Manufacturer's Premises for a minimum number of two officers for inspection call at their own cost.

**B) LABOUR**

**01. Employment of labour**

- a) The Contractor shall employ labour in sufficient numbers to maintain the required progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer. The Contractor shall not employ in connection with the work any child who has not completed his 15<sup>th</sup> year of age. He shall also not employ an adolescent who has not completed his 18th year unless he is certified fit for work as an adult as prescribed under clause (b) of sub-section (2) of section 69 of the factories Act 1948.
- b) The Contractor shall also see that all the provisions regarding employment of young person's covered by the employment of Children Act, 1933 and the factories Act, 1948, as amended from time to time shall be fully complied with. The Contractor shall also see that the provisions set for under the minimum

wages act as amended from time to time are fully complied with by him and shall maintain necessary registers and records for payment of Wages, overtime etc made to his workmen as required by the Conciliation Officer (Central), Ministry of Labour, Government of India, or such other authorized person appointed by the Central or the State Government.

- c) The Contractor shall make his own arrangements for the engagement of all labour local or otherwise.
- d) The Contractor shall indemnify the Board or any agent, servant or employee of the Board for any lapses on the part of Contractor on account of non-compliance of above referred acts.

## **02. Minimum Wages**

- (a) The Contractor shall pay the laborers engaged by him on the work not less than a minimum wage (which expression shall mean whether for time or piece work, the respective rates of wages as fixed under the law for time being in force).
- (b) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid such minimum wage to laborers indirectly engaged on the work including any labour engaged by labour contractors in connection with the said work as if laborers had been immediately employed by him.
- (c) The contractor shall comply with the provisions of payment of wages act, 1936, Minimum Wages act 1948, Employers liability Act 1938, Workmen Compensation Act 1923, Industrial dispute Act 1947, Indian factories Act 1948 and the Maternity Benefit Act 1961, or any modification thereof or any other law relating thereto and rules made there under from time to time, he will observe and give effect to the provisions of any law for the time being in force and regulating the rights and privileges of the laborers employed by him directly or indirectly.
- (d) The contractor shall indemnify the Board by executing a separate Indemnity Bond on requisite stamp paper against any payments to be made under and for the observance of the regulations, in force for the time being without prejudice to his right to claim indemnity from his sub-contractors.

## **(C) Commencement time and delays**

### **01. Works closed, on Sundays and holidays**

- a) No work shall be done on Sundays and holidays except with the special sanction of the General Manager (Engg.) in writing previously obtained and with holding of such sanction shall be no ground of complaint on part of the Contractor or cause for compensation to him, or excuse for not completing the work within the contract period. The period within which the work has to be carried out and completed has been fixed in terms of this clause with the proviso that the total number of hours of work permissible shall not exceed 48 hours in a week and in no case more than 8 hours on any working day, the actual time within which the said hours shall be worked being subject to mutual arrangements with the Contractor at the commencement of the works or from time to time as may be required and provided that all works shall be stopped for rest and meals for one hour at about mid-day exclusive of the permissible hours aforesaid for the works.

- b) Though sanction may be accorded to the Contractor to work on the day and at times otherwise normally non-permissible under this contract, the Contractors shall be required to bear the cost for such supervision as in the opinion of the Engineer may be necessary at these times.
- c) The Contractor at all times during the continuance of the contract shall in all his dealings with local labour for the time being employed on the works contemplated by this contract have due regard to all local festival and religious or other customs and all disputes, matters and questions arising between the Contractor and any office agent on the one hand and any local labour on the other hand with respect to any matter of thing in any way connected with this contract shall be decided by the Board whose decision shall be final and binding on all parties.

## **02. Commencement time and extension for delay**

- i) The time allowed for execution for the works as specified in the contract documents shall be the essence of the contract. The execution of the work shall commence from the date specified by the engineer in writing. If the contractor fails or neglects to commence the execution of the work as aforesaid, the BOARD shall without prejudice to any other right or remedy be at liberty to forfeit the security deposit absolutely.
- ii) In the event of the contractor failing to comply with this condition he shall be liable to pay as compensation as per prevailing conditions.

If the work be delayed by --

- (a) Force major such as acts of god, acts of public enemy, act of government, floods , epidemics etc. or
- (b) Abnormally bad weather or
- (c) Serious loss or damage by fire or
- (d) Civil commotion, local combination of workmen strike or lockout affecting any of the trades employed on the work or
- (e) Delay on the part of other contractor or tradesmen engaged by the BOARD in executing works not forming part of the contract or
- (f) Non-availability of stores which are the responsibility of the Board to supply or
- (g) Non-availability or breakdown of tools and plants to be supplied or supplied by BOARD Or
- (h) Any other cause which, in the absolute discretion of the Engineer is beyond the Contractor's control, then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer but shall nevertheless use constantly his best endeavor to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer to proceed with the work



iii) Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within 14 (Fourteen) days of the happening of the event causing delay. The Contractor may also, if practicable indicate in such a request the period for which extension is desired.

iv) In any such case the Engineer may give a fair and reasonable extension of time for completion of individual items or groups of items of work for which separate period of completion are specified in the contract or in the contract as a whole. The decision of the Engineer in regard to the extension will be communicated to the Contractor in writing within a reasonable time " and the Contractor shall also be paid such compensation that in the opinion of the Engineer is fair and reasonable to cover the delays resulting from the provision under the sub-clauses (e), (f) and (g) above " .

### **3. Completion Certificate**

- (1) As soon as work is completed, the contractor shall give notice of such completion to the engineer and within 30 (thirty) days of receipt of such notice the Engineer shall inspect the work and shall furnish the contractor with a certificate of completion indicating. (a) The date of completion (b) The defects to be rectified by the contractor and / or (c) Items for which payment shall be made at reduce rates.

When separate periods of completion have been specified for items or groups of items, the Engineer shall issue separate completion certificates for such items or groups of items. No certificate of completion shall be issued, nor the work be considered to be complete till the contractor shall have removed from the premises on which the work has been executed, all scaffolding, sheds, and surplus material, except such as required for rectification of defects, rubbish and all huts and sanitary arrangements required for his workers on the site in connection with the execution of work as shall have been erected by the contractor or the workmen and cleaned all dirt from all parts of the Building(s) in upon or about which the work has been executed or of which he may have had possession for the purpose of execution thereof and cleaned floors gutters and drains, eased doors and sashes, oiled leads and fastenings, labeled the keys clearly and handed over to the Engineer or his representative and made the whole premises fit for immediate occupation or use to the satisfaction of the Engineer. If the contractor shall fail to comply with any of the requirement of this condition as aforesaid, on or before the date of the completion of works, Engineer may at the expenses of the contractor fulfill such requirements and dispose of all the surplus material and rubbish etc. as he thinks fit and the contractor shall have no claimed in respect of any such material except for any sum actually realized by the sale thereof less the cost of fulfilling the requirements and any other amount that may be due from the contractor. If the expenses of fulfilling such requirements are more than the amount realizes on such disposal as aforesaid, the contractor shall forthwith on demand pay such excess. In case where the work is executed to the contractors design, the contractor's notice of completion as aforesaid shall have to be accompanied with carefully finished handmade cloth tracing of the work as actually executed, failing which the noticed shall be deemed to have not been issued at all.

- (2) If at any time before completion of the entire work, items or groups of items for which separate periods of completion have been specified, have been completed, the Engineer with the consent of the contractor takes Possession of any part or parts of the same (any such part or parts being hereinafter in this condition referred to as "the relevant parts") then notwithstanding anything expressed or implied elsewhere in this contract.

Within 30 days (thirty days) of date of completion of such item or groups of items or possession of the relevant part the Engineer shall issue a completion certificate for the relevant parts provided the contractor fulfills his obligations for the relevant part as in the sub para (1) above.

The defect liability period in respect of such items and relevant parts shall be deemed to have commenced from the certified date of completion of such items or relevant part as the case may be.

For the purpose of ascertaining compensation for delay under condition no. 65 in respect of any period during which the works are not complete the relevant part shall be deemed to form a separate items or groups, with the dates of completion as given in the contract or as extended under condition no. C - 02 and actual date of completion as certified by the Engineer under this condition.

- (3) If any part of the work shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed under the contract, the Engineer may issue a certificate of completion in respect of that works before completion of the whole work and upon the issue of such certificates, the contractor shall be deemed to have under taken to complete any out-standing work in that part of the works during the period of the maintenance.

**(D) Maintenance & defect liability period**

**01. Defects liability period**

The Contractor shall be responsible to make good and remedy at his own expense for entire contract period, within such period a may be stipulated by the Engineer and defects which may develop or may be noticed before the expiry of the period mentioned from certified date of completion and intimation of which has been sent to the Contractor within seven days of expiry of the said period by letter sent by hand delivery or by registered post.

**02. Liability for defects or imperfections and rectification's thereof**

If it shall appear to the Engineer or to his representative at any time during construction or reconstruction or during the defects liability period, that any work that has been executed with unsound, imperfect or unskillful workmanship or that any material or article provided by the Contractor for execution of the work is unsound or of a quality inferior to that contracted for, or otherwise, not in accordance with in contract, or that any defect, shrinkage or other faults have appeared in the work arising out of defective or improper materials or

workmanship, the Contractor shall, upon receipt of notice in writing in that behalf from the Engineer forthwith rectify or remove or reconstruct the work so specified in whole or part, as the case may require, or as the case may be, and/or remove the materials or articles so as specified and provide other proper and suitable materials or articles at his own expense notwithstanding that the same may have been inadvertently passed, certified and paid for, and in the event of his failing to do so within the period to be specified by the Engineer in his notice aforesaid the Engineer may rectify or remove and re-execute the work and/or remove and replace with others the materials or articles complained of, as the case may be, by other means at the risk and cost of the Contractor.

### **03. Liability for damages and risks**

- a) The Contractor shall be responsible for all risks to the work and shall make good at his own cost, all loss or damage, whether to the works themselves or to any other Board property, or third party or to the lives, persons, or property of others, from whatsoever cause, arising out of, or in connection with the works, either during their progress or during the defects liability period, and this although all reasonable and proper precautions may have been taken by the Contractor, and in case the Managing Director or the Board shall be called upon to make good any such costs, loss or damages, or to pay compensation( including that payable under the provisions of Workmen's Compensation Act ) to any person or persons sustaining damage as aforesaid by reason of any act or of any negligence or omissions on the part of the Contractor, the amount which the Managing Director may pay in respect thereof and the amount of any costs or charges(including law costs and charges ) in connection with legal proceedings which he may incur in reference thereto, shall be charged to the Contractor. The Managing Director shall have full power and right at his own discretion to pay or to defend or compromise any claim which may be made against the Board for damage or in case of threatened legal proceedings, or in anticipation of legal proceedings being instituted, consequent on the action or default of the Contractor, to take such steps as he may consider necessary or desirable to ward off or mitigate the effect of such proceedings charging to the Contractor, as aforesaid, any sum or sums of money which he may pay and any expenses, whether for reinstatement or otherwise which he may incur and the propriety of any payment, defense or compromise, or of the incurrence of any such expense shall not be called in question by the Contractor.
- b) The Contractor shall be held responsible for any obligations, damages and fines etc. arising out of or in connection with the works either during their progress or during the defects liability period i.e. total contract period and shall indemnify the BOARD or the Managing Director against them and make good any such damages, fines and dues arising out of non-compliance of any regulation under the Minimum Wages Act by the Contractor which may develop on the Board or the Managing Director. The Contractor shall take out a policy as per the provisions of the Workmen's Compensation Act for the purpose of insuring compensation to the workers engaged by them.

### **(E) Alterations, additions and omissions**

#### **01. Rates for excess / extra**

- a) The Contractor shall arrive at the rates after carefully preparing the rate analysis taking into consideration the site conditions.
- b) No variation in rates shall be permitted where the Contractor has been instructed to decrease the quantity of any work in the Contract.
- c) The Board reserves a right to vary the scope of work.

**(F) Measurements**

**01. Records and measurements**

- a) The General Manager shall accept or otherwise stated ascertain and determine by measurement the value in accordance with the contract of the work done in accordance therewith.
- b) All items having a financial value shall be entered in the measurement book, level book etc. as prescribed by the BOARD so that record is obtained of all work performed under the contract.
- c) Measurements shall be taken jointly by the Engineer or his authorized representative and by the Contractor or his authorized representative. Before taking measurements of any work the Engineer or the person deputed by him for the purpose shall give a reasonable notice to the Contractor. If the Contractor fails to attend or to send an authorized representative for measurement after such a notice or fails to countersign or the objection within a week from the date of measurement, then in any such event measurements taken by the Engineer or by the person deputed by him shall be taken to be correct measurements of the work and shall be binding on the Contractor.
- d) The Contractor shall without any extra charge provide assistance with every appliance and other things necessary for measurements.
- e) Measurements shall be signed and dated by both the parties each day (of taking measurements) on the site on completion of measurement.

**(G) Certificates and payments**

**01. No interest for delayed payments due to disputes etc.**

- a) It is agreed that the BOARD or it's General Manager shall not be liable to pay any interest or damage with respect to any moneys or balance which may be in it's or its Engineer's or officers' hands owing to dispute or deference or claim or misunderstanding between the BOARD or it's Engineer or offices on one hand and the Contractor on the other, or with respect to any delay on the part of the BOARD or it's Engineer or officers in making periodical or final payments or in any other respect whatsoever.
- b) It is distinctly understood and agreed between the parties hereto that payment for work already executed by the Contractor is not a condition precedent under this contract for the execution of the remaining work.

**02. Receipts to be signed in firm's name by any one of the partners**

Every receipt for money which becomes payable or for any security which may become transferable to the Contractor under these present shall, if signed in the partnership name by any one of the partners, be a good and sufficient

discharge to the Managing Director and Board in respect of the money or security purporting to be acknowledged thereby, and in the event of death of any of the partners during the pendency of the contract, it is hereby expressly agreed that every receipt by any one of the surviving partners shall, if so signed as aforesaid, be good and sufficient discharge on aforesaid provide that nothing in this clause contained shall be deemed to prejudice or effect any claim which the Managing Director or the Board may hereafter have against the legal representative of any partners so dying or in respect of any breach of any of the conditions thereof, provided also that nothing in this clause contained shall be deemed to prejudice or affect the respective rights or obligations of the Contractor and of the legal representative of any deceased Contractors interest.

### **03. Overpayment and underpayment**

- a) Whenever any claim for the payment of a sum to the Board arises of or under this contract against the contractor the same may be deducted by the BOARD from any sum then due or which at any time thereafter may become due to the Contractor under this contract and failing that under any contract with the BOARD or from any other sum due to the Contractor from the BOARD (which maybe available with the BOARD) or from his security deposit/retention money or he shall pay the claim on demand.
- b) The BOARD reserves the right to carry out payment audit and technical examination of the bills including all supporting voucher, abstracts etc. The BOARD further reserves the right to enforce recovery of any overpayment when detected.
- c) If as a result of such audit and technical examination any overpayment is discovered in respect of any work done by the contractor or alleged to have been done by him under the contract, it shall be recovered by the BOARD from the contractor by any or all the methods prescribed above or if any underpayment is discovered the amount shall be duly paid to the contractor by the BOARD.
- d) Provided that the aforesaid right of the BOARD to adjust overpayment against amount due to the contractor under any other contract with the BOARD shall not extend beyond the period of two years from the date of payment of the bill or in case the final is a " Minus " bill, from the date of the amount payable by the contractor under the "minus" bill is communicated to the contractor. Any amount due to the contractor under this contract for underpayment may be adjusted against any amount then due or which may be at any time thereafter become due before payment is made to the contractor, from him to BOARD on any other contract or account whatsoever.

## **(H) Remedies and powers**

### **01. Cancellation of contract in full or in part**

A) If the Contractor:

- a) At any time makes default in proceeding with the work with due diligence and continues to do so after notices (1<sup>st</sup>, 2<sup>nd</sup> final notices ) in writing of fourteen days from the Engineer; or

- b) Commits default in complying with any of the terms and conditions of contract and does not remedy it within seven days after final notice in writing is given to him in that behalf by the Engineer, or
- c) Fails to complete the works or items with individual dates completion, on or before the date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer, or
- d) Shall offer or give or agree to give to any person in BOARD service or to any person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to any other contract for the BOARD, or
- e) Shall obtain a contract with the BOARD as a result of ring bidding or other non bonafide methods of competitive bidding; or
- f) Being an individual or a firm, any partner thereof, shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance of assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for his creditors; or
- g) Being a company, shall pass a resolution or the court shall make an order for the liquidation of his affairs, or a receiver or a manager on behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the court of debenture holders to appoint a receiver or a Manager, or
- h) Shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days, or
- i) Assigns, transfers, sublets (engagement of labour on a piece work basis or labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or attempts to assign, transfer or sublet, the entire works or any portion thereof without the prior written approval of the Managing Director; the Managing Director may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to the BOARD by written notice cancel the contract as a whole or only such items of work in default from the contract.

B) The Managing Director shall on such cancellation have powers to

- a) Take possession of site and any materials, constructional plant, implements, stores, etc., thereon and/or Carry out the incomplete work by any means at the risk and cost of the contractor.
- b) On cancellation of the contract in full or in part the Engineer shall determine what amount, if any, is recoverable from the contractor for completion of works or in case the works or part of works is not completed, the loss or damage suffered by the BOARD, in determining the amount, credit shall be given to the contractor

for the value of the work executed by him up to the time of cancellation, the value of the contractor's material taken over and incorporated in the work, and use of tackle and machinery belonging to the contractor.

- c) Any excess expenditure incurred or to be incurred by the BOARD in completing the works or part of the works or excess loss or damages suffered or may be suffered by the BOARD as aforesaid after allowing such credit shall be recovered from any money due to the Contractor on any account and if such moneys are not sufficient the Contractor shall be called upon in writing to pay the same within thirty days. If the Contractor shall fail to pay the required sum within the aforesaid period of thirty days, the Engineer shall have right to sell any or all of the Contractor's unused materials, constructional plant, implements, temporary buildings etc. And apply the proceeds of sale thereof towards the satisfaction of any sums due from the Contractor under the contract, and if thereafter there be any balance outstanding from the Contractor it shall be recovered in accordance with provision of the contract..
- d) Any sums in excess of the amounts due to the BOARD and unsold materials, constructional plant etc. shall be returned to the Contractor, provided always that if cost or anticipated cost of completion by the BOARD of the works or part of the works is less than the amount of which the Contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the Contractor.
- e) Without prejudice to the generality of the foregoing, the Contractor shall deposit the amount, as security deposit shall be absolutely forfeited to the BOARD for such failure, or breach or determination of contract.

## **02. Termination of contract in case of death:**

If the Contractor is an individual or proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies then unless the Managing Director is satisfied that legal representative of the individual Contractor or the proprietor of the proprietary concern and in case of partnership, the surviving partner, are capable of carrying out and completing the contract, the Managing Director shall be entitled to cancel the contract as to its uncompleted part without the Board being in any way liable to payment of any compensation to the estate of the deceased contractor and / or to the surviving partners of the Contractor's firm on account of the cancellation of the contract. The decision of the Managing Director that the legal representative of the deceased Contractor or surviving partners of the Contractor's firm cannot carry out and complete the contract shall be final and binding on the parties. In the event of such cancellation the Managing Director shall not hold estate of the deceased Contractor and / or the surviving partners of the Contractor's firm liable in damages for not completing the contract.

### **03. Urgent works**

If any urgent work (in respect whereof the decision of the Engineer shall be final and binding) becomes necessary and the Contractor is unable or unwilling at once to carry it out, the Engineer may by his own or other work peoples carry it out as he may consider necessary. If the urgent work shall be such as the Contractor is liable under the contract to carry out at his expense all expense incurred on it by the Board shall be recoverable from the contractor and be adjusted or set off against any sum payable to him.

### **(I) Force measure**

#### **01. Force measure contract in full or in part**

- a) If at any time after acceptance of the bid the Managing Director shall decide to abandon or reduce the scope of the works for any reasons whatsoever and hence not require the whole or any parts of the works to be carried out, he shall inform the Contractor in writing to that effect and the Contractor shall have no claim to any payment or compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.
- b) The Contractor shall be paid at the contract rates full amount of works executed at site, and in addition, reasonable amount as certified by the Engineer for the value of such material (which material thereupon become the property of the Board) and also such further allowances as the Engineer may think reasonable and fair in respect of (a) any expenditure incurred by the Contractor towards preliminary works etc. and (b) other reasonable and proper engagement of the Contractor may have entered into for carrying out the work, (c) such compensation as considered equitable under the circumstances.

### **(J) Settlement of disputes**

#### **01. Finality of decision and non-arbitrability.**

- a) If any dispute, difference or claim is raised by either party to any matter arising out of the contract, the aggrieved party may refer such dispute within a period of 7 days to the concerned Director, who shall constitute a committee comprising of three officers i.e. concerned other than the engineer of contract. The committee shall give its decision within 60 days.
- b) Appeal from the order of the committee may be referred to Managing Director within 7 days. Thereafter Managing Director shall constitute the committee comprising of three Directors including Director In-charge of finance department. The decision given by this committee shall be final and binding upon the parties.

#### **02. Income Tax**

The Contractor shall pay Indian Income Tax on all payments made to him under the contract, other than reimbursements made to him by the Board to cover payments by Contractor of minor customs dues etc., or any other payment



which the Contractor may make on the Board's behalf. Under the provisions of section 194 - C of the Indian Income Tax Act, the Board is required to deduct tax at source and under present legislation will deduct as tax 2.244 % (IT 2% Plus 0.244% Surcharge) of the gross amount of each bill submitted. Any ex-patriot site staff or staff not normally resident of India, employed by the Contractor or shall pay personal Income Tax on all money earned and paid in India.

**(K) Material and workmanship**

**01. Inspection and approval**

- a) All works embracing more than one process shall be subject to examination and approval at each stage thereof and the contractor shall give due notice to the Board when each stage is ready. In default of such notice the Board shall be entitled to appraise the quality and extent thereof. No work shall be covered up or put out of view without the approval of the Board and the contractor shall afford full opportunity or examination and measurement of any work which is about to be covered up or out of view and for examination of foundation before permanent work is placed thereon.
- b) The contractor shall give due notice to the Engineer or his authorized representative whenever any such work of foundation is ready for examination and the Engineer or his authorized representative shall without unreasonable delay unless he considers it necessary and informs the contractor in writing accordingly attend for the purpose of examining and measuring such work or examining such foundation. In the event of the failure of the contractor to give such notice he shall if required by the Engineer or his authorized representative uncover such works at the contractor's expense.
- c) Departmental officers concerned with the works shall have powers at any time to inspect and examine any part of the works and the contractor shall give such facilities as may be required for such inspection and examination.

**02. Materials**

The Contractor shall at his own expense provide all materials required for the works.

- a) All materials to be provided by the Contractor shall be in conformity with the specifications laid down in the contract and the Contractor shall if requested by the Engineer or his authorized representative furnish proof to the satisfaction of the Engineer or his authorized representative that the materials so comply. The materials used for fabrication like welding rods, plants, and angles shall be of best quality and shall be used after prior consult of the site engineer.
- b) The Contractor shall at his own expense and without delay supply to the Engineer or his authorized representative samples of materials propose to be used in the work. The Board shall within seven-days of supply of samples or within such further period as he may require and intimated to the Contractor in writing inform the Contractor whether the samples are approved by him or not. If the samples are not approved the Contractor shall forthwith arrange to supply to the Engineer or his authorized representative for approval fresh samples complying with the specifications laid down in the contract.

- c) All charges on account of octroi, terminal or Sales tax and other duties on material obtained for the works from any source shall be borne by the Contractor.
- d) The Engineer or his authorized representative shall be entitled to have tests carried out for any material supplied by the Contractor other than those for which as stated above, satisfactory proof has already been produced, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Board may require for this purpose.
- e) If no tests are specified in the contract and such tests are required by the Board, the Contractor shall provide all facilities required for the purpose and the charges for these tests shall be borne by the Contractor only if the tests disclose that the said materials are not in accordance with the provision of the contract.
- f) The cost of the material consumed in test shall be borne by the Contractor in all cases except when otherwise provided.

#### **L) Use of IS Specifications: -**

In case where no particular specifications are given for any article to be used under the contract, where such IS exists, the relevant Indian standard shall apply & material supplied shall bear ISI marking.

#### **M) Definitions**

In the contract (as hereinafter defined), the following words and expressions will have the meaning hereby assigned to them.

- a) **Approved / Approval:** - Means approved in writing.
- b) **Execution of contract:** - Means all equipment, appliances or thing of whatever nature required for the execution, completion or maintenance of the work, are within the contractor's scope.
- c) **Contract:** - Means the instruction and information for bidders, general and special conditions of contract, specifications, drawing, bid (including the schedule of quantities and bid prices) the form of agreement and all addenda and attachments related to the above.
- d) **Contractor:** - Means the particular person, firm or company with whom the contract has been made for executing the works.
- e) **Engineer in Charge:** - Means the Engineer – in – charge of the work or specified parts of the work under the contract or such other departmental assistants or subordinates to whom the Engineer – in – charge may have delegated certain duties, acting separately within the scope of the particular duties entrusted to them.
- f) **HMWSSB:** - Means The Hyderabad Metropolitan Water Supply and Sewerage Board or the Board / Owner / Employer.
- g) **Site :-** Means the land and other places on, under, in or through which the works are to be carried out or executed and any other lands or places provided by the owner (HMWSB) for the purpose of contract together with such other places as may be specially designated in the contract or subsequently

approved as forming part of site. All sites will be within the jurisdiction of HMWSSB

- h) **Engineer:** - Means the Engineer in overall charge of the works.
- i) **Temporary Work:** - Means all temporary works of every kind required for the performance of the contract.
- j) **Works:** - Means the work to be executed in accordance with the contract.

**N) Acquaintance with site and working conditions etc**

1) **Inspection of site:** The contractor shall study the site and general conditions in respect of approaches; laborers, climate and the dates included in the bid papers and get it verified from the actual inspection of site etc, before submitting the bid. In case of doubts about any item or data included in the bid or otherwise, it shall be got clarified in prebid conference. Once the bid is accepted, it shall be concluded that the contractor has verified and made himself conversant with all the details required for completing the work as per conditions and specifications.

**2) Conveyance**

Conveyance facilities to staff such as plumbers, fitters, labourers, meter readers & supervisors, etc, shall be arranged & paid by the Contractor. Department shall not take any responsibility for paying & providing such facilities even on rental basis.

**3) Store shed and temporary office**

This shall be arranged by the contractor at his own cost, with adequate safety for watch & ward. The contractor should provide an office with furniture facilities in Hyderabad, at suitable locations.

**4) Working methods**

The work shall be executed without distributing the existing activities and in co-ordination with consumer and HMWSSB staff.

**5) Progress schedule**

- a) The contractor shall provide sufficient number of staff and labour as may be necessary for installation and maintenance, repairs etc; as per scope of work.
- b) Further, the contractor shall submit the progress report of work at intervals of one month, or as may be specified by the Engineer.

**6) Instruction booklet**

An instruction booklet, in the approved format, shall be maintained at site and it shall be the property of HMWSSB and the contractor shall promptly execute orders given therein by Engineer or his representative for the work and comply with them. The contractor shall report the compliance to the Engineer- in -Charge in good time so that it can be verified.

## **7) Co-ordination**

Contractor must ensure full co-ordination and co-operation to the consumer and departmental staff of the HMWSSB.

In case of any dispute, disagreement between the contractors, the Engineer's decision regarding the co-ordination, co-operation and facilities to be provided by the contractors shall be final and binding upon the concerned contractor. And such a decision or decisions shall not vitiate any contract nor absolve the contractor(s) of his / their obligations under the contract nor consideration for the grant for any claim or compensation.

## **8) Temporary quarters**

The contractor at his own expenses shall maintain sufficient experienced supervisory staff and labourers, etc, required for the work and shall make his own arrangement, for providing housing to them with all necessary arrangements, etc.

## **9) Relations with public authorities**

The contractor shall comply with all rules & regulations, by laws and directions given from time to time by any local or Public Authority in connection with this work and shall himself pay fees or charges which are levied on him without any extra cost to the Department.

## **10) Safety code**

The contractor shall at his own expenses arrange for the safety provisions indicated hereafter or as required by the Engineer-in-Charge in respect of all labour directly or indirectly employed for performance of the works and shall provide all facilities in connection therewith.

## **11) Nuisance**

The or occupants of other Contractor shall not at any time do, cause or permit any nuisance on the site or do anything, which shall cause unnecessary disturbance or inconvenience to consumer, tenants properties and to the public generally.

## **12) Arbitration**

- a) In case of any dispute of difference between the parties to the contract either during the progress or after the completion of the works or after the determination, abandonment, or breach of the contract, as to the interpretation of the contract, or as to any matter or thing arising there under except as to the matters left to the sole discretion of the General Manager under clauses of the preliminary specification or as to the withholding by the General Manager of payment of any bill to which the contractor may claim to be entitled, then either party shall forthwith give to the other notice of such dispute or difference, and such dispute or difference shall be and is hereby referred to the arbitration of the Chief General Manager(Engg.) of the nominated circle mentioned in the "Articles of agreement" (hereinafter called the "Arbitrator") and the award of such Arbitrator shall be final and binding on the parties unless contested by either party in a court of law.
- b) Provided however that in cases where the Chief General Manager(Engg.) has entered into the contract on behalf of the Governor, the dispute or difference

shall, in the first instant, be referred by or through the General Manager to the Chief General Manager(Engg.)s of the Circle, in which the work lies and his decision thereon obtained before referring such dispute or difference to arbitration under this clause . Progress of the work shall not be suspended or delayed on account of the reference of any dispute or difference to the Chief General Manager(Engg.) of the circle in which the work lies or to arbitration under this clause. The decision of the General Manager(Engg.) or the Chief General Manager(Engg.) of the Circle in which the work lies, as the case may be on such dispute or difference shall be conclusive until reversed by the Chief General Manager(Engg.) or the arbitrator. Either party may within a period, which shall be fixed by the arbitrator, file before the arbitrator a statement of the case and also all the documents relating to or having a bearing on the case. The arbitrator shall see that the award is passed, if reasonably possible, within a period of four months from the date of his entering upon the reference, but if any extension of that period is considered by him to be necessary, either Suomoto or on the application of either party to the reference, the parties hereby agree and consent to such extension as the arbitrator may from time to time consider reasonably necessary and any such extension shall forthwith be communicated by him in writing to each of the parties hereto. The arbitrator shall not be bound to observe the ordinary rules of procedure applicable to trials before Judicial Tribunals nor to hear or receive formal evidence but may pass on award on the documents or statements of the case filed by both the parties under or on personal inspection. The arbitrator shall have power to view the subject matter of the dispute with or without the parties or their agents. The arbitrator shall also have power to open up, review and revise any certificate, opinion decision, requisition or notice, save in regard to the matters expressly excepted and to determine all matters in dispute which shall be submitted to him, and of which notice shall have been given as aforesaid, in the same manner as if no such certificate, opinion, decision, requisition or notice had been given upon every any such reference the costs of any incidental to the reference and award respectively shall be in the discretion of the arbitrator, subject to the condition that the amount of such cost to be divided to either party shall not in respect of, i.e., monetary claim exceed the percentage set out below of any such award irrespective of the actual fees costs and expense incurred by either party; provided that where a monetary claim is disallowed in full, the said percentage shall be calculated on the amount of the claim. The arbitrator may determine the amount of the costs to be awarded or direct the same to be taxed as between solicitor and client or a party and party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

- c) The percentage above referred to in this clause are 5 percent on any such monetary award which does not exceed Rs.10,000/- 3 percent on the next Rs.40,000/- or any part thereof, 2 percent on the next Rs.50,000/- or any part thereof and 1 percent on any excess over Rs.1,00,000/-. Provided that Government shall not be liable to any claim in respect of any such dispute or difference until liabilities, and the amount referred to is decided by the arbitrator. Provided that payment to the contractor based on the arbitration award shall be made only after acceptance of the award by the

Director(Technical) if the value of the award is less than Rs.20,000/- and the Government if the value is Rs.20,000/- above.

**Note:1:       *Arbitration awards whose value is below Rs.20,000/-.***

The Director (Technical) is authorised to accept arbitration awards below Rs.20,000/- in value. The Director (Technical) shall make a review of the arbitration award within 15 days of service of the notice of the making of the awards in consultation with the local counsel and if in his opinion the award has to be contested, he shall file an application in the court within 30 days of service of the notice of making of the award for the filing of the award and take steps to contest the award.

If, for any reason, the Director (Technical) considers it inadvisable to act according to the advice of the local counsel, he shall refer the matter to the Government for examination within 15 days of the service of the notice of the making of the award.

***Arbitration Awards Whose value is Rs.20,000/- or above:***

Rs.20,000/- and above and submit a report to the Government within 10 days of service of the notice of the making of the award in such cases a summary of the case, a copy of the agreement for the work, the facts pressed before the arbitrator by the parties along with the recommendations of the Director(Technical) should be furnished to the Government for full appreciation of the case. The Government will then take a decision in consultation with the law department whether the award should be accepted or not and communicate the same within 25 days of service of the notice of making of the award so as to enable the Director (Technical) either to take action on the basis of the award or to file an application in the court within 30 days of service of the notice of the making of the award for filling of the award and for contesting it.

**Note: 2:** Applications of contractors seeking arbitration should bear a court fee stamp as per clause 10 (K) of Schedule (ii) to the Andhra Pradesh court fees and suits valuation act, 1956 but no stamp duty need be levied.

The awards passed by arbitrators shall be made on stamped paper the value of which should be according to the value of claim to which the award relates as per article 12 of Schedule.1-A to the Indian Stamp Act.

If the aggrieved party goes to a court of law challenging the award, he should pay the necessary court fee.

**NOTE 3)   “Settlement of claims above Rs.50,000 in value**

For all claims above Rs.50,000/- in value either party shall go to the civil court of competent jurisdiction by way of regular suit and not by arbitration.”

**13)   Contractor's risk and insurance**

- a) Employer's and Contractor's Risks: The employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
- b) Employer's Risks: The Employer is responsible for the expected risks which are (a) in so far as they directly affect the execution of the works in the Employer's country, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution,

insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the works, other than the Contractor's design.

- c) Contractor's Risks: All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the expected risks are the responsibility of the Contractor.

- d) Insurance During the Project Period:

Successful bidder shall arrange to insure the existing infrastructure / equipment of HMWSSB at the work sites against damage / failure during the project contract period.

The minimum coverage against damage to the facility and materials during project period of the contract shall be Rs.10.00 Lakhs (Rupees Ten Lakhs) and the insurance should be maintained by the Bidder in the joint names of the Contractor and the Employer for the period from the start date to the end date of the Project Contract period. The Bidder shall have to insure all the workers and staff and give a copy of the insurance of his staff to HMWSSB.

- e) Insurance During Contract Period:

The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles for the following events which are due to the Contractor's risks:

- (a) Loss or damage to the Works, Plant and Materials;
- (b) Loss or damage to Equipment;
- (c) Loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contractor; and
- (d) Personal injury or death.

Agency may opt to engage HMWSSB's Nodal Agency on Insurance Matters for the works taken under this contract, and the successful agency may be contact the Nodal Agency and after assessment by the agency, the necessary Insurance policies have to be taken as per requirement.

- f) Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- g) If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employee has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- h) Alterations to the terms of insurance shall not be made without the approval of the Engineer.
- i) Both parties shall comply with any conditions of the insurance policies.

**14) DATE OF COMMENCEMENT, COMPLETION, DELAYS, EXTENSIONS,  
SUSPENSION OF WORK AND FORFEITURE.**

1. a) ***Delays and extension of time:*** No claim for compensation on account of delays or hindrances to the work from any cause whatever shall lie, except, as hereinafter defined. Reasonable extension of time will be allowed by the officer competent to sanction the extension, for unavoidable delays, such as may result from causes, which, in the opinion of the General Manager (Engg.), are undoubtedly beyond the control of the contractor. The General Manager (Engg.) shall assess the period of delay or hindrance caused by any written instructions issued by him.  
  
b) In the event of the General Manager(Engg.) failing to issue necessary instructions and thereby causing delay and hindrance to the contractor, the latter shall have the right to claim an assessment of such delay by the Chief General Manager(Engg.) of the Circle whose decision will be final and binding. The contractor shall lodge in writing with the General Manager (Engg.) a statement of claim for any delay or hindrance referred to above, within fourteen days from its commencement, otherwise no extension of time will be allowed.  
  
c) Whenever authorised alterations or additions made during the progress of the work are of such a nature in the opinion of the General Manager (Engg.) as to justify an extension of time in consequence thereof, such extension will be granted in writing by the General Manager(Engg.) or other competent authority when ordering such alterations or additions.
2. ***Delays in commencement or progress or neglect of work and forfeiture of earnest money, security deposit and withheld amounts:***
  - (a) Time shall be considered as of the essence of the contract. If, at any time, the General Manager (Engg.) shall be of the opinion that the contractor is delaying commencement of the work or violating any of the provisions of the contract or is neglecting or delaying the progress of the work "Rate of Progress" in "Articles of agreement", he shall so advise the contractor in writing and at the same time demand compliance. If the contractor neglects to comply with such demand within seven days after receipt of such notices (1<sup>st</sup>, 2<sup>nd</sup> and final notice), it shall then, or at any time there after, be lawful for the General Manager (Engg.) to determine the contract, which determination shall carry with it the forfeiture of the Security deposit. However, any authority higher in rank than the General Manager (Engg.) may, in his absolute discretion, waive or modify any penalty or forfeiture imposed by the General Manager(Engg.), under the provisions of this clause.
  - (b) If, however, the General Manager(Engg.) notwithstanding the failure of the contractor to comply with the demand referred to in sub-clause (a) of this



clause or failure to maintain the “Rate of Progress” specified in the “Articles of Agreement” plus any extension of time that may have been allowed to the contractor as defined, shall permit the contractor to proceed with the whole or part and continue and complete the whole or such part of the work, such permission shall not be deemed to be a waiver in any respect by the General Manager(Engg.) of the right of forfeiture under this clause: Provided however that any such forfeiture under this sub-clause shall not exceed 10 per cent of the total of the contract amount: Provided however that any authority higher in rank than the General Manager(Engg.) may in his absolute discretion waive or modify any penalty or forfeiture imposed by the General Manager (Engg.) under the provisions of this clause.

- (c) It shall be a further right of the General Manager (Engg.), under this clause, at any time the “Rate of Progress” in the agreement is not maintained, to give any part of the work to any other contractor at his discretion, in order to maintain the “Rate of progress”. Upon the completion of that part of the work that is withdrawn, the General Manager (Engg.) shall certify the amount of expenditure incurred by the department for getting it completed by another contractor or contractors. Should the amount so certified be less than the amount, which would have been due to the contractor on the completion of that part of the work by him, the difference shall not be paid to the contractor. Should, however the former exceed the latter, the difference shall be recovered from the contractor by the Government, provided however that such a recovery shall not exceed 10% of the total finished contract amount.

3) The bidder shall examine closely the APSS and also the Standard preliminary specification contained therein for applicable to civil works before submitting his tender which shall be for finished items of work in situ. He shall also carefully study the drawings and additional technical specifications, and all the documents which form part of the agreement to be entered into by the successful bidder.

4) The bidder attention is directed to the requirements for materials under the clause “Materials and Workmanship” for applicable to civil works in the preliminary specifications. Materials and workmanship conforming to the APSS or the latest ISS shall be used on the work and the bidder shall quote his rate accordingly. Where ISS is mentioned, the materials and workmanship shall be in accordance with the latest revision of ISS.

## **15 Legal clauses**

The contract shall in all respect be constructed for operation as Indian contract and in conformity with Indian Laws and is subject to the Jurisdiction of the Hyderabad Courts only.

## **SECTION - IV**

### **TECHNICAL SPECIFICATIONS**

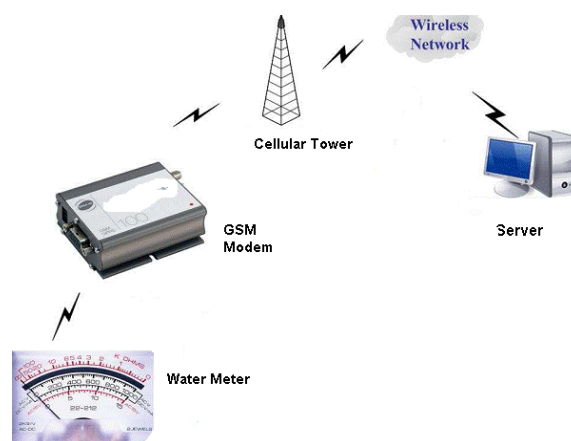
## **TECHNICAL SPECIFICATIONS**

### **1. GENERAL SPECIFICATIONS**

- a) The technical specification for the work and details included in this bid are prepared with a broad view taking care of all items of work. However, all the supplemental items of works which are required for satisfactory completion and guaranteed performance of the system / projects are deemed to be included in the offer and no extra cost will be paid by HMWSSB.
- b) The bidder shall extend full cooperation and interaction with other agencies at site, if involved.
- c) The bidder must have service facilities to maintain the equipment installed.
- d) The work shall be carried out with good workmanship following standard engineering practice.
- e) The successful bidder shall take utmost care not to cause any nuisance due to noise, welding operations etc. all the proper precautions shall be taken by them in this respect.
- f) The bidder shall submit, "Identity card" to all the work force at site.
- g) Quantity of supply and installation of AMR water meters listed in 'Schedule 'A' - Bill of Quantities' is for estimate purpose and this may vary. However, the payment shall be made on actual basis i.e. number of AMR water meters supplied, installed commissioned & maintained satisfactorily.
- h) All the submitted documents should be paginated, indexed and signed.
- i) All the documents and certificates submitted shall be in English language only.
- j) Authorization certificate from water meter manufacturer shall be submitted.
- k) The bidder, in case of authorized dealer, shall submit copy of certificate of dealership from manufacturer of the make quoted in the tender.
- l) The authorization given by the manufacturer shall be of direct nature, without involving any intermediary firm.

## 2. Description of the System Structure

The AMR meter installed at the consumer premises shall transmit water consumption data wirelessly to GSM modem and the GSM modem in turn shall send data to Server installed HMWSSB data centre directly through GSM through GPRS communication securely (OR) to vendor server. If integrated type of solution is proposed as AMR meter, AMR interpreter and GSM modem integrated in single unit then wire can be used internally and no wire should be projected outside. The Software module installed at HMWSSB data centre / vendor server module shall manage the AMR meters.



Schematic Diagram for AMR Applications for HMWSSB

**2.1 The Water Meters:** The water meters size ranging from **25mm to 300mm** dia. Confirming to ISO: 4064, class-B standard or IS: 779 or IS: 2373 with their latest amendments which have ISI/EEC/MID certification marking and compatible to automatic meter reading.

**2.2 GSM modem(End Units) : GSM modem(End Units) :** GSM modem are either integrated with the water meter (with wire or wireless) or if not integrated to the water meter the GSM modem should be connected to the water meter wirelessly and receive outputs relative to the water consumption. Accordingly an internal "programmed meter" should be installed within end units which are identical to the water meter scale. GSM modem (End unit) will transmit information through GPRS network to Server at control room (HMWSSB Data Centre at Khairatabad, Hyderabad) or the vendor server control room or data centre. The GSM unit/End unit may or may not have LCD display.

**2.3 Communication of data:** The GSM modem that collects information from water meter should transmit the information to the control center over GSM network using GPRS communication technology. The communication between meter to GSM modem should be wireless if GSM modem is not integrated in meter.

**2.4 The Control Center:** The control centre consists of Server provided by HMWSSB as per requirements of the bidder and installed with software module for managing all the end units in case if vendor is providing server and server side software all the cost has to

be borne by vendor only. In case vendor proposes to give along with server side software they can use their control centre and software/ hardware.

HMWSSB has the subscription Oracle license, ATS and storage devices for the same. **If any other data base is proposed then the bidder has to borne the additional cost towards license, storage and maintenance cost etc.,**

## 2.5.Gist of Prime Technical Specifications of the main components to be involved in the project.

S.No	Item	Value/ requirement
<b>A)</b>	<b>Water Meter</b>	
1.	Certification	ISI (or) EEC (or) MID – higher standards
2.	Standard	IS: 779 (or) IS: 2373 (or) ISO: 4064 Class-“B” with latest amendments.
3.	Protection class	IP68
4.	Performance certification	Performance certification is ‘Optional’ for sizes of 50mm dia & above at the time of bidding but this condition shall ‘Mandatory’ for successful bidder and the successful bidder shall produce life cycle test reports as per the existing norms by the FCRI, Govt. of India, Palakkad for remaining all sizes of water meters with in 3 months period from the date of entering into agreement to this project and only FCRI certified sizes meters will be allowed for execution.
<b>B)</b>	<b>Meter Interface Unit</b>	
1.	Protection class	IP68
2.	Communication with GSM modem/ Meter	a) Only Wireless if GSM modem and Meter is not integrated. b) Wired (or) wireless if GSM modem and Meter are integrated. Wire should not be exposed outside.
3	Battery	Life should be for a minimum of 5 years
<b>C)</b>	<b>GSM Modem (End Unit)</b>	
1.	Network	GSM
2.	Protection Class	a) IP68 if integrated with AMR Meter b) IP67 If NOT integrated with AMR
3.	Communication with AMR meter/ Meter interface	a) Wired (or) wireless in case integrated with water meter. Wire should not be exposed outside. b) Only Wireless if not integrated with AMR meter

4.	Communication technology	GPRS should be the default method of data transfer with automatic feed back by SMS in case of GPRS (low signal level) failure.
5	Frequency range for communication between GSM modem and Meter interface.	To operate with the prevailing frequency range as specified by DOT/GOI.
6	Battery	Life should be for a minimum of 5 years

<b>D)</b>	<b>Software Module</b>	
1	Requirement	Should be able to manage all the AMR meters and generate all required reports with life time license to HMWSSB.
2	Database to be used	<b>Data base to be used:</b> HMWSSB has the subscription Oracle license, ATS and storage devices for the same. If any other data base is proposed then the bidder has to borne the additional cost towards license, storage and maintenance cost etc.,
3	Architecture	The architecture of the manufacturer's software module required is web based, so as to enable online access of the Data/Reports via web interface.
4.	Location of application to be hosted	In HMWSSB server located HMWSSB data centre at Hyderabad.
5.	Interface	The software module should provide the interface of meter data to existing RBS module in Tab / Comma separated value format.

Note: in case vendor propose to use their server they can use their own standards

	<b>Meter &amp; Strainer Chambers</b>	
E.)	Construction of Meter & Strainer Chambers.	a)Construction of RCC / CRS in C.M (1:6) / Brick masonry in C.M (1:5) chamber including CM 1:4 plastering with tamper proof M.S. frame with 8mm thick plate cover and 7 levers lock & key arrangement of size suitable to the meter with a clearance of 0.3 meter all round between to edges of meter / strainer & chamber including cost of all materials, excavation, dismantling of existing chamber & all other incidental and operational charges etc; complete to AMR meters and Strainers

		<p>b) Meter chambers are to be constructed for all pipe sizes and for pipe sizes 50mm and above either separate or combined meter strainer chambers are also to be constructed.</p> <p>c) If the proposed AMR water meter is without any moving parts (ie rotating mechanism) in the meter in such case providing strainer before the meter is not compulsory.</p>
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### 3.0 DESCRIPTION OF AMR METERING SYSTEM ACTIVITIES

#### 3.1 Data Collection:

Readings from the water meters will be collected following consumption and/or at permanent intervals. All readings must be identified by a water meter code, the value of the reading, and sampling time. In this manner a layer of data from each meter must be created in the GSM units and/or in the control center Server at designated time intervals.

#### 3.2 Processing Information:

Information will be processed in the control center concerning the received data. Calculations and consumption balances will be calculated from the level of each individual meter. The control center Software Module will allow management of water consumption and water meters replacement. In addition, interfacing to the existing information system in the HMWSSB is required.

#### 3.3 Identifying and Reporting Malfunctions and Irregularities

The system will conduct inspections and calculations in order to identify and locate hydraulic and technical irregularities and malfunctions on all levels, such as:

- a) Suspicion of continuous leaks/consumption over a lengthy period of time / excessive use of water / suspicion of a stopped water meter / vandalism / water meter turning in reverse
- b) Suspicion of leak / excessive use of water / cutoff / at the consumer/ building/ or compound level
- c) Calculation and warning of a large decrease in water on a local (branched), regional/neighborhood level.
- d) Malfunction in end units or between the end unit and control centre.

#### 3.4 Billing – Interfacing to the HMWS&SB billing system

- a) GSM Meter Reading system must be interfaced with the HMWS&SB RBS system. The data structure, data quality inspections, essence, manner and rate of data transmission must be completely compatible with the HMWSSB

revenue Billing system so that no contradictions or duplications are created between the Remote Meter Reading system and the HMWSSB billing system.

- b) The HMWS&SB billing system/ personnel will handle generation and issue of physical water bills to consumers.

### 3.5 Access of billing data to Consumer

Consumers will be able to access the billing details and reading through the HMWSSB website to see their current water meter reading by connecting the AMR meter directly and as well as history of their water consumption for selected period of duration as desired by the consumer.

## 4. General Guidelines and Requirements

- a) The system and all its components: The method of communication, computerization system, logging volume, memory, databases, etc – must be able to deal with min.25, 000 water meters.
- b) The reliability of the readings must be high, with no more than 2 errors per 1,000 readings. A reading error will be defined as a deviation between the value that appears in the Remote Meter Reading and the mechanical display on the meter.
- c) All layers of the system should support the process of water meter replacements (dismantling and installation).
- d) All tasks described, including the process of accumulating information, quantity calculation, and producing reports, must be performed without flaw in case the defective water meters are replaced.
- e) All installed equipment must not hide the existing display on the water meter and allow the meter to be read conveniently.
- f) If the Interpreter, GSM modem is installed on the water meters or within as part of the meter (hereby referred to as an integral water meter). The integral water meter can use wireless or wired mode of communication between meter, Interpreter and GSM modem and no wire should be exposed outside as it leads to tampering/damage.
- g) If GSM modem and meter are separate then only wireless communication should be used to communicate between meter and GSM modem.
- h) The entire system from the field to the control center will operate continuously under all weather conditions.
- i) The system and all its components must be protected against the most severe environmental conditions such as temperature, humidity, water, and dust prevailing in Hyderabad.
- j) The system and all its layers must include means of protection against noise, excessive electrical charges, and lightning.
- k) An equal time-base must be created for all system components: the hour and date must be synchronized for all system components within a range or precision of at least 1 minute.



- l) The system will learn the consumption profile for each consumer for identifying irregularities and malfunctions.
- m) The computer system will enable updating and rewriting of data initiated by an authorized user. For example: updating the condition of water meters and monthly quantities of water.
- n) Communication Procedures

The following are details regarding several basic procedures for communication.

- a) Popup messages

A popup message should be from the end units and upward, when an irregular event such as a leak, malfunction/vandalism to the end unit is identified.

- b) Initiated Inquiry

The control center will be able to initiate inquiries for data of the end units. When an inquiry is made the latest log data in the end unit will be received.

- c) Identifying Malfunctions in the Remote Meter Reading system (System Alarms)

The system will include routine checks to ensure flawless operation of communication and equipment, including Water meter malfunction, End unit malfunction

## **5. Meter interface Unit (Data transmitter between METER and GSM Modem)**

### **5.1 COMPATIBILITY WITH THE WATER METERS**

- a) Must have a robust structure that is as resistant as possible to vandalism, compatible and able to be connected to water meters of various sizes and types designed to be connected to a Remote Meter Reading system as per scope of work.
- b) The manner in which Interpreter/ Data transmitter are installed must not cause any hindrance to reading the water meter scale. The scale must be readable in the same manner and convenience as prior to the installation of the end units.

### **5.2 RESISTANCE TO NOISE, ELECTRICAL AND RADIO DISTURBANCES**

- a) Ability to operate in a noisy electrical environment with electromagnetic disturbances (EMI)
- b) Ability to operate in an environment with the prevailing frequency range etc; as specified by DOT/GOI.
- c) Protection against current fluctuations and lightning as per rule in vogue.

### **5.3 GENERAL CHARACTERISTICS**

- a) Must identify the movement of the dial and count the pulses, or identify the numbers absolutely, shall read the water meter in a more precise manner.
- b) Must be able to diagnose fluctuations in the dial as a result of fluctuations in the water flow. A system that performs this function by reading the movement of the dial/wheel that counts in two points (creating a pulse only when the dial/wheel passes over two points) will constitute an advantage. Reading at 3 points (enabling identification of backward flow) will constitute an additional advantage. Another advantage will be a more reliable reading method.
- c) Can identify backward flow and calculate the amount on the electronic counter (program) separately.
- d) Information logged in Meter interface Unit must include:
  - i. Meter interface Unit ID number
  - ii. The water meter ID number
  - iii. Water meter reading
- e) Include a time clock synchronized with the system clock (for a two-way).
- f) Should identify and report low battery power in the end units.
- g) Can identify "small leaks" by continuous consumption over a long period of time
- h) Should identify measurement malfunctions caused by the proximity of an external magnet.
- i) Should identify tampering and/or movement of the water meter.

## 6. WIRELESS COMMUNICATION

- a) **General:** The information from water meter will be transmitted via wireless communication directly through GSM and to the control center.
- b) **Codes and Licensing:** The contractor must comprehensively deal with all the necessary licensing and permits that are required for the wireless system that exist during the submittal of the project, including assignment of a frequency for operating the system and paying for licensing for operation and use and as per DOT/GOI rules in vogue.
- c) **Communication Rate/Frequency:** The rate of communication between AMR meter and GSM modem must be frequent – at least once for every 15 minutes – in order to calculate water balance as precisely as possible.
- d) **Communication Frequency**
- e) A public frequency that is approved by the Ministry of Communication, GOI for use by the system can be proposed.
- f) Proposals and systems in which the designated communication frequency is managed and supervised by the contractor, who holds a business license for the proposed frequency ("License for establishing and operating a commercial station") will constitute an advantage.
- g) **Energy Supply**
  - i. Must operate using an internal battery.
  - ii. The life of the batteries must be at least 5 years in the required operating conditions
- h) **Direct access to water meter**
  - i. Water meters must be accessible to GSM for logging data, calibration, and adjusting parameters.
  - ii. Water meters with two-way communication that allow access using a wireless terminal without physical connection to GSM units.

## 7. INTEGRAL WATER METERS – WATER METERS + GSM MODEM (END UNITS)

If integral water meters is proposed in which interpreter/ GSM modem constitutes part of the water meter (an integral meter), the integral meter must meet ISO 4064/IS779/IS2373 which have ISI/EEC/MID certification mark and IP68 sealing standards. And send water meter readings as well as signals and warnings from Water meter with GSM communication system.

## 8. The Control Center

- a) A control center will be established in the HMWSSB data centre – All communication, collecting and processing information, as well as the interfacing with the computer system and information in the HMWSSB will be implemented in

Data center within the HMWSSB (Or) in vendor site in case vendor proposes to keep the server at his location.

- b) A control center within the HMWSSB/ vendors location will have the following:
  - i. A Server installed with management software to manage all AMR meters
  - ii. Work stations for operation and/or handling terminals and/or diagnostics and system maintenance.
- c) THE CONTROL CENTER – HARDWARE AND ITS SOFTWARE
  - a) HMWSSB will provide the Server as per the specification requested by the successful bidder along with internal wiring for network connection from server with in HMWSSB data centre and also provides 24X7 UPS power required for the hardware.
  - b) The selected bidder shall supply and install Software module for managing the AMR meters and generate alerts, required reports as per the HMWSSB requirements.
  - c) All software items must be supplied with literature and complete documentation.
  - d) All proposed software must be updated to the most recent production series and versions that exist on the market at the beginning of implementation. All this must be done at no additional cost.

## **9. SOFTWARE MODULE**

### **General Requirements**

- a) The web based software for Remote Meter Reading system must have all the functions of the consumer management program with improvements, including dealing with computerized water meters and readings from terminals throughout the city, as well as interfacing to the HMWSSB billing system.
- b) It is made clear that implementing the program must include detailed description of all program components including definition of all the processes, operation screens, reports, interface to the HMWSSB billing system, and to the terminal software, algorithms for identifying irregularities, calculating water balance, identifying leaks, identifying stopped water meters, etc. All descriptions and definitions for the software must be submitted to the HMWSSB for approval.

Note: The bidder/contractor must take into consideration that changes in definition and requirements can be expected during all stages of initial implementation and later, and that these changes are to be implemented at no additional cost.

- a) The bidder should design equipment for the control center and the entire computer system – hardware and software, communication rate, reaction time, accumulation volume, memory, databases etc, will be suitable for dealing with future capacity of up to min.25,000 water meters, while preserving the changing data base (consumer data) for at least 7 years.

- c) The provided programs will be common commercial of-the-shelf programs as much as possible, which are sold and distributed on the market, and which have broad backup and technical support, so that all developments and adaptations that are required can be made based on these commercial programs.

Note: It is emphasized that all programs must be provided with life time licenses in the name of the HMWSSB and with full documentation.

- d) Contractors must describe the data regarding the proposed operating system, the system programs and application generators that they propose when submitting their proposal.
- e) All programs must have web based graphic interface.
- f) The system must be flexible and open, with a high degree of connectivity in all its component, to allow changes and future expansion
- g) All system components must include detailed HELP screens on all levels as well as full documentation and operating instructions. The programs must be in English on both graphic and text levels.
- h) The system must have at least two user levels:

System Administrator, Operator

- i. The system administrator must have full access and implementation rights for all actions and system configuration.
  - ii. System administrators will have permissions for authorization of other users including passwords.
  - iii. Allotting authorizations to users (operators) must be modular so that authorization can be granted for performing certain actions according to the administrator's decision.
  - iv. Despite flexibility and required openness the system must be protected using accepted information protection mechanisms that will be approved by the client, which will prevent unauthorized penetration of the system.
  - v. Protection must include protection against penetration by unauthorized persons to equipment such as Server, end units, and the various programs. The information security system must prevent penetration by unauthorized persons via communication lines and various data and, via the working stations and the computer network itself.
- i) Users/operators/meter readers must be identified when performing various operations such as reading meters, dealing with malfunctions, evaluating consumption, changing meters, etc.
  - j) The Application software system must be web based. The program must be designed in such a way, that any user can login to the web based application and can perform all tasks. Moving from one task to another must be simple, user-friendly and quick. The system program must enable maintenance operations to be performed as well as everyday operation by users, including:
    - i. Adding/deleting lists (including definitions of water meters, buildings, areas, and consumers)

- ii. Defining reports, inquiries, and graphs
  - iii. Backup
- k) The Application can be assessable from web to all the users through standard web browsers.

## **l) Interfacing to the HMWS&SB Computer System**

### **General**

i. The HMWSSB control centre consists of Server provided by HMWSSB as per requirements of the bidder and installed with meter software module for managing all the end units.

Data from GSM unit / End unit will be directly collected to manufacturer's software which will be installed at HMWSSB data centre and further interface will be provided to existing RBS module of HMWSSB.

The software module should provide the interface of meter data to existing RBS module in Tab / Comma Separated Value format.

li.The program must provide an optimal interface to the "external" programs, especially the HMWS&SB billing system.

lii.Relevant information must be transferred automatically on change and/or at regularly (daily/ monthly) and in any case on request according to need and HMWSSB definition, in order to avoid incompatibility and contradiction between the various databases and systems

## **m) The Database Management**

The database management program must deal with collecting information, processing and making information available for use in the operating stations. The program must be able to deal with a database suitable to an expansion of min.25,000 water meters.

The following are general requirements:

- I. The software will be based on a common, standard commercial program for dealing with databases.
- II. The software will allow several users to work on the same database simultaneously.
- III. The software will include mechanisms for protecting data quality.
- IV. A high survival rate is required that will ensure that hardware malfunctions and communication failures will not harm the databases: no data with erroneous or partial information will enter the database, or damage the database or files.
- V. The system administrator must have the possibility (and authorization) to rewrite data.
- VI. The database can be updated by the user, who will operate the system and produce reports.

- VII. The database will have an Oracle interface that will enable inquiries and commands in Oracle from other programs while the system is operating.
- VIII. HMWSSB has the subscription Oracle license, ATS and storage devices for the same. If any other data base is proposed then the bidder has to borne the additional cost towards license, storage and maintenance cost etc.

**n) Water Meter/Water Meter Reading System Management, Maintenance and Operation.**

The software will provide a fast, user-friendly tool for managing the maintenance of water meters and their accessories, including:

- i. Manufacture / Purchase of new water meters
- ii. Installation of new water meters
- iii. Replacement of existing old water meters
- iv. Disconnection of water meters
- v. Enforcement disconnections
- vi. Arbitration checks
- vii. Water Meter Reading system maintenance, including replacement of GSM modem (end unit) battery etc.
- viii. The user (operator) will be able to view all the relevant data and the status of the water meter and readings (see water meter card), as well as the identification and relating of the water meter's number and location according to the WMR (Water Meter Reading) system
- ix. Each maintenance activity will be dated.
- x. Various reports may be produced regarding new installations and/or maintenance activities as well as expected activities.

**3. TECHNICAL DETAILS AND SPECIFICATIONS of Major components**

**3.1 AMR Meter :**

- a) The AMR water meters in accordance with ISO: 4064, Class-B standards with latest amendments or IS: 779 or IS: 2373 with its latest amendments and shall bear EEC or ISI or MID certification marking for each size and shall be compatible to GSM based AMR system.
- b) The bidder shall offer all sizes of water meters mentioned in the 'Schedule-A Bill of Quantities' **on prorated basis.**
- c) Water meters of each size should have been duly tested and passed as per the relevant specifications from FCRI, Palakkad, Kerala, India, for performance test. The bidder shall note that the test certificate shall be in name of water meter manufacturer. If it is not in the name of water meter manufacturer, then the same will be treated as invalid.
- d) All the charges of water meters testing, transportation etc, shall be borne by the Bidder.

- e) All the water meters shall have the facility to record the reverse flow of water and the same shall be reflected in the software system.
- f) The water meters shall have anti magnetic properties, as specified in ISO: 4064/IS779/IS2373 (when tested with 4000 gauss magnet).

### **3.2 GSM Modem:**

- a) The GSM Modem unit shall be a self power unit containing GPRS modem capable of GPRS and SMS communication over GSM cellular networks.
- b) The system should use SMS transmission to permit operating with very low GSM signal levels (compared to GPRS and GSM Data) and to enable a more predictable battery lifetime of minimum five years.
- c) The system has to communicate daily for Flow rate Analysis, Consumption Profile and Data Alarms, in order to extend battery lifetime.
- d) The system should communicate in real time for Peak flow, Back flow, Battery low and Tamper alarms, in order to provide relevant monitoring and management data for operational purposes.
- e) The battery shall be replaceable without any data loss; during this process the device shall receive the confirmation from the server in order to prevent differences between devices and server.
- f) The system will provide a real-time transmission of GPRS/SMS with the GSM reception level to ensure that the device will operate under installed conditions.
- g) The Configuration Menu shall be protected by password to ensure only authorized personnel can modify the parameters.
- h) The device should be capable of displaying the battery capacity in the field.
- i) The device should be capable of measuring backflow.
- j) The device should be capable of being sealed using tamper seals. The devices need to be protected from unauthorized opening.
- k) The device should have mounting points for installation. The device should be easily installed to achieve best efficiency during installation.
- l) The device should be able to display GSM Signal Strength to allow Technicians to ascertain very quickly whether the device will work in the chosen location, at the same time the Server software should generate alarms.
- m) The device should have a possibility for tamper detection.
- n) It shall be possible to send real-time alarms to mobile phones.
- o) Real-time alarms shall be sent to server, permitting the system operator to manage the workforce.
- p) The system shall be providing a real time alarm for battery replacement to avoid losing data.
- q) The system shall be provided with a real time alarm for peak flow to help identify when network is overloaded, or when meter is running above specifications.



- r) The system shall provide an alarm for under-sizing of the meter.
- s) The system shall provide an alarm for over-sizing of the meter.
- t) The system shall provide an alarm to indicate that the meter is out of range.
- u) The system shall provide a daily alarm if the meter is stopped based on zero consumption.
- v) The system shall maintain accuracy between actual meter index and communicated index of 99.9% or more.
- w) The reading shall not be affected by magnetic interference as outlined in ISO 4064/IS779/IS2373.
- x) The system shall provide hourly interval data **with hourly basis daily communication** to a server.
- y) The system should be capable of storing data in every fifteen (15) minute intervals on the device.
- z) Individual meters should be configurable independently of other meters in order to take into account individual consumption parameters.
- aa) The system shall permit that all configuration parameters for similar meters can be updated in one time.

### **3.3 SOFTWARE MODULE REQUIREMENT.**

- a) The system shall be providing allow grouping of meters together for consumption analysis of zone metering.
- b) The system shall provide capability of exporting data by a group of meters and/or individual meters to facilitate sharing of information with other stakeholders.
- c) The configuration of the devices should be possible “over-the-air” to enable updating the configuration of devices without having to go on-site.
- d) The system should have at least two different user levels. 1)Administrator  
2)User
- e) The system shall provide automatic recover of any missing daily data for up to 62 days in case there is a communication failure.
- f) The system shall provide a summary report of successful transmission of all meters.
- g) The system shall provide a summary of alarms occurred in the last 24 hours for a quick analysis of the performance of the system and to identify potential problem meters.
- h) The system shall display the date and time of peak-flow events to facilitate the identification of the source of the issue.
- i) The system shall display the percentage of meters installed that have been successfully read.
- j) The system shall be able to display the actual read index of meter to enable billing of the end-user from the system and to ensure legal compliance.

- k) A view should be given to consumers to view the meter reading details to know consumption pattern.
- l) The system shall be providing a means to facilitate comparison between different meters.
- m) The system shall be providing a means to facilitate comparison between different time periods.
- n) The system shall be capable of displaying historical consumption information (minimum two months period).
- o) Individual meters should be configurable independently of other meters in order to take into account individual consumption parameters.
- p) The system shall permit that all configuration parameters for similar meters can be updated in one time.
- q) The software will include advanced tools to deal with replacing water meters in the middle of the billing period, reading in the middle of the billing period for account closing purposes, producing consumption estimates in case of malfunctions, etc. All the above will be fully synchronized with the existing HMWSSB billing software in order to avoid double-entries and/or missing data.
- r) The software module/package shall allow secure internet access for authorized personnel, as well as consumers, for the purpose of reading water meters, viewing aggregate consumption and consumption distributions, etc.

#### **3.4 Specifications for Meter Chamber & Strainer Chambers:**

- a) Construction of RCC / CRS in C.M (1:6) / Brick masonry in C.M (1:5) chamber including CM 1:4 plastering with tamper proof M.S. frame with 8mm thick plate cover and 7 levers lock & key arrangement of size suitable to the meter with a clearance of 0.3 meter all round between to edges of meter / strainer & chamber including cost of all materials, excavation, dismantling of existing chamber & all other incidental and operational charges etc; complete to AMR meters and Strainers
- b) Meter chambers are to be constructed for all pipe sizes and for pipe sizes 50mm and above either separate or combined meter strainer chambers are also to be constructed.
- c) If the proposed AMR water meter is with out any moving parts (ie rotating mechanism) in the meter in such case providing strainer before the meter is not compulsory.

3.5 (i) Pipe Reducer/Pipe enlarger if required as per site conditions that the agency shall be arranged and necessary costs will be included in the quoted rate.

(ii) Agency shall be intimate to concerned Manager(E)/DGM(E) minimum 48hrs before to install AMR Meters at site in their jurisdiction.

(iii) If LCD screen display type meter interface unit should be displayed the Consumption reading along with date and time.

(iv) The few of following sample report charts shall be generated through Web based and HMWSSB feels if any other reports required as per site conditions and time to time base, those reports shall also be arranged by the bidder as a part of AMR project.

Daily Consumption -Dynamic Report Generation- selected customer

ENTER

Date

CAN

From

To

Name of Consumer	
Address	
Division	
PipeSize	
Category	
Meter ID	
Installation Date	
MIU Date	

Per Day Peak Consumption (in KL)	
Last 6 Month	
Previous Month	
Current Month	

Monthly Consumption (in KL)	
Last 6 months	
Highest	month & KL
Previous Month	

Day	PT	NT	Reading	Difference	Supply (Y/N)	meter replacement (if)	Exceptional Findings	Alters	Battery Health	Mode of Transmission sms/gprs/others
				in kilo liter						
Opening Reading									Good/Critical	
day 1										
day 2										
day 3										
day 4										
day 5										
day 6										
day 7										
day 8										
day 9										
day 10										
day 11										
day 12										
day 13										
to select date										

PT: Positive

NT: Negative

MIU: Meter interface Unit

Meter Fixing Report-Dynamic Report Generation- selected Division- Pipe Size & Category Wise

Summary

ENTER			Date	
	O&M Division	From	To	
	or ALL			

S.No	PipeSize	No Of CANs		S.No	Category	No of CANs
1	3/4"			1	Industrial	
2	1"			2	Water Based	
3	1 1/2"			3	Commercial	
4	2"			4		
5				5		
6				6		
7				7		
8				8		
9				9		
10				10		
11				11		
12	last size			12		
Total				Total		

Meter Size													
in	mm	1	2	3	4	5	6	7	8	.....	.....	Total	
		CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)
25	1"												
40	1 1/2"												
50	2"												
75	3"												
80	3 1/2"												
100	4"												
125	5"												
150	6"												
200	8"												
250	10"												
300	12"												
400	16"												

On Selection  
Demand Month

Category	1		2		3		4		5	.....	.....	.....	.....	Total	
	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	Qty (KI)	CANs	CANs	Qty (KI)
Domestic															
Multi Storied-Dom															
Commerical															
MSB-NonDomestic															
Industrial															
Industrial (Bulk)															
Industrial (WB)															
Colonies															
Villages															
Total															

ENTER

O&M Division	All/Div/Section
--------------	-----------------

		Size		Category	Name	Address	Date		Meter ID	Opening Reading	Meter Cost By Customer	AMR
S.No	CAN	Pipe	Meter				Installation	MIU				Bill issue (Y/N)

(Y/N)

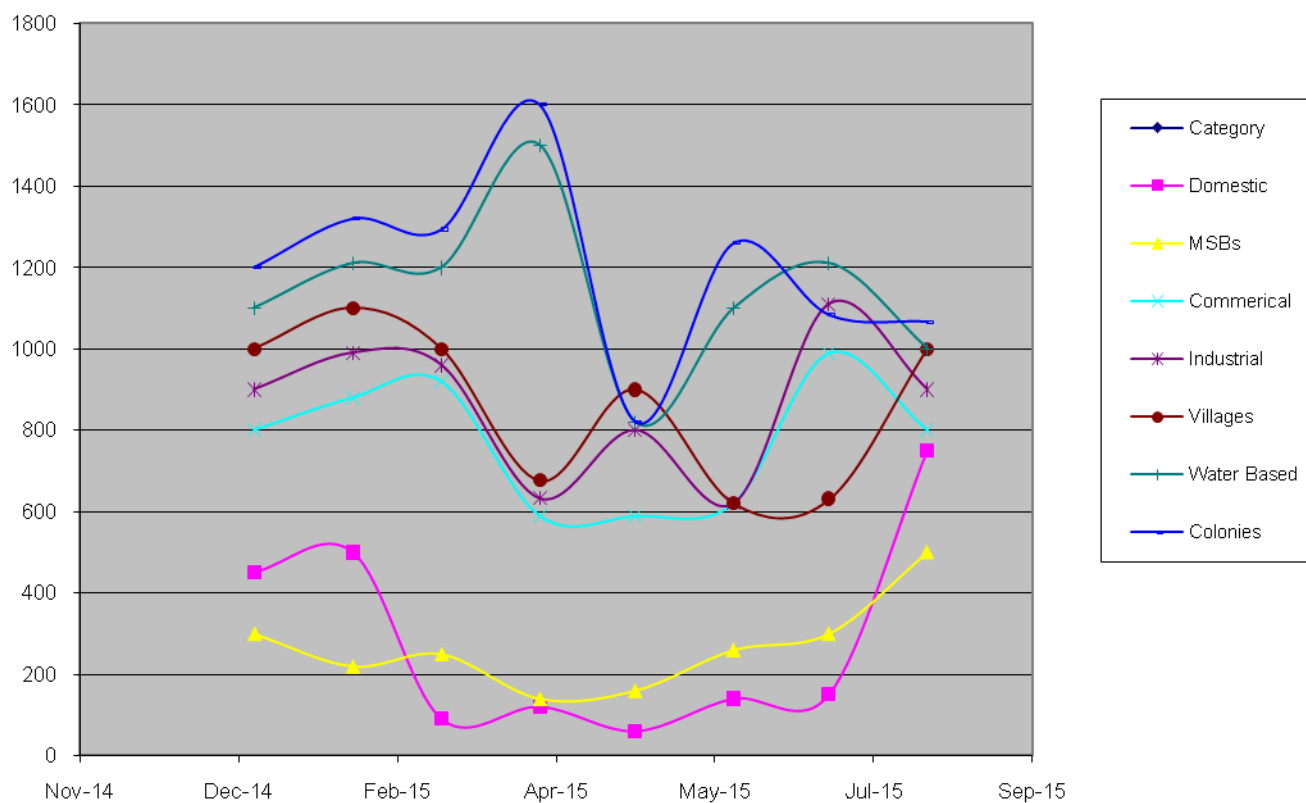
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												

## Sample:1

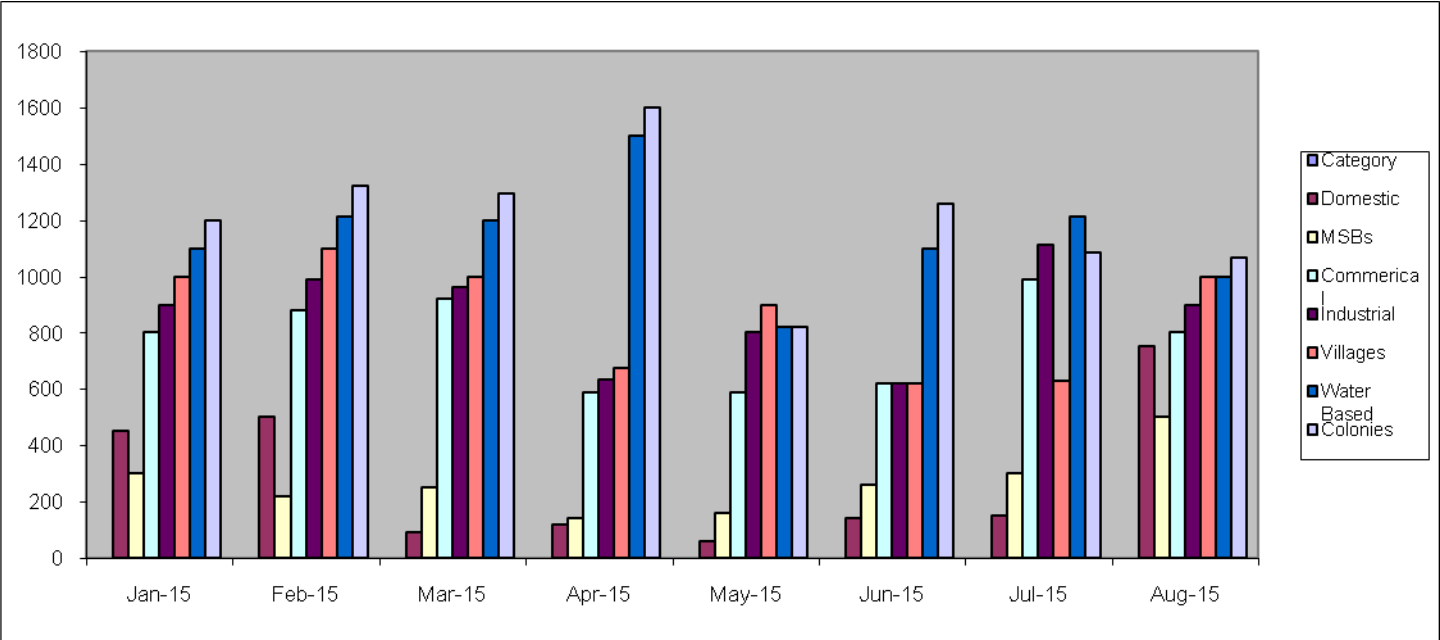
Graphical Representation of Category Wise Monthly consumption in kilo liters

Example:

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Category								
Domestic	450	500	90	120	60	140	150	750
MSBs	300	220	250	140	160	260	300	500
Commerical	800	880	920	588	588	620	990	800
Industrial	900	990	960	632	800	620	1110	900
Villages	1000	1100	1000	676	900	620	630	1000
Water Based	1100	1210	1200	1500	820	1100	1210	1000
Colonies	1200	1320	1293	1600	820	1260	1083	1067

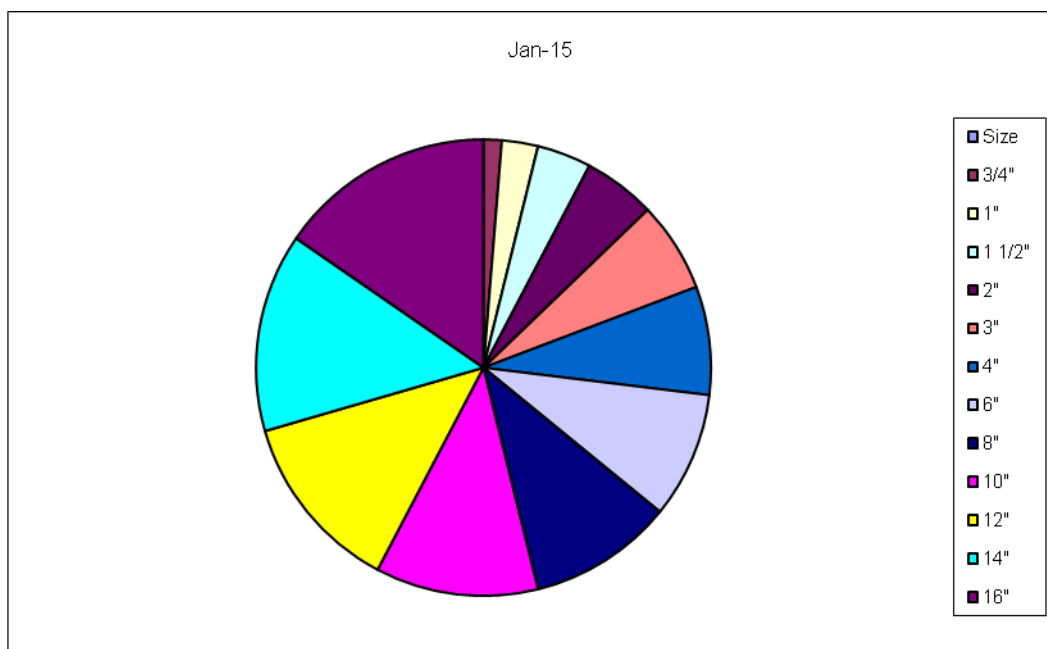
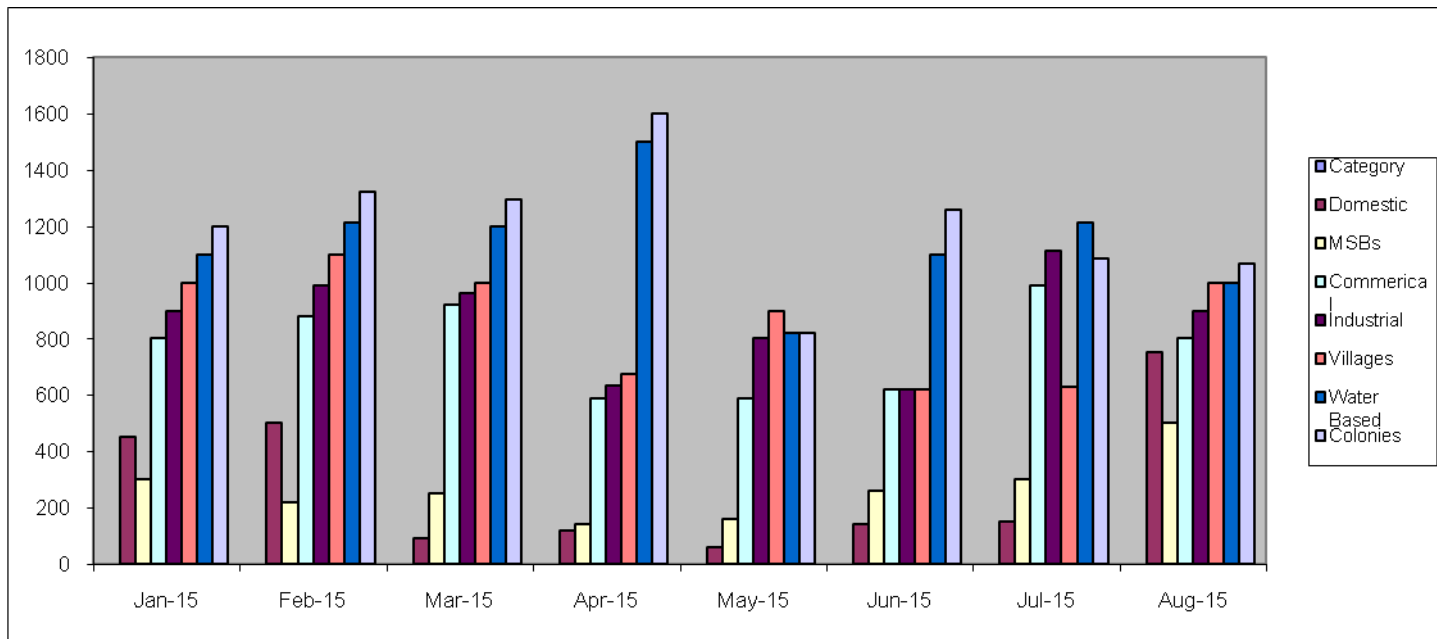




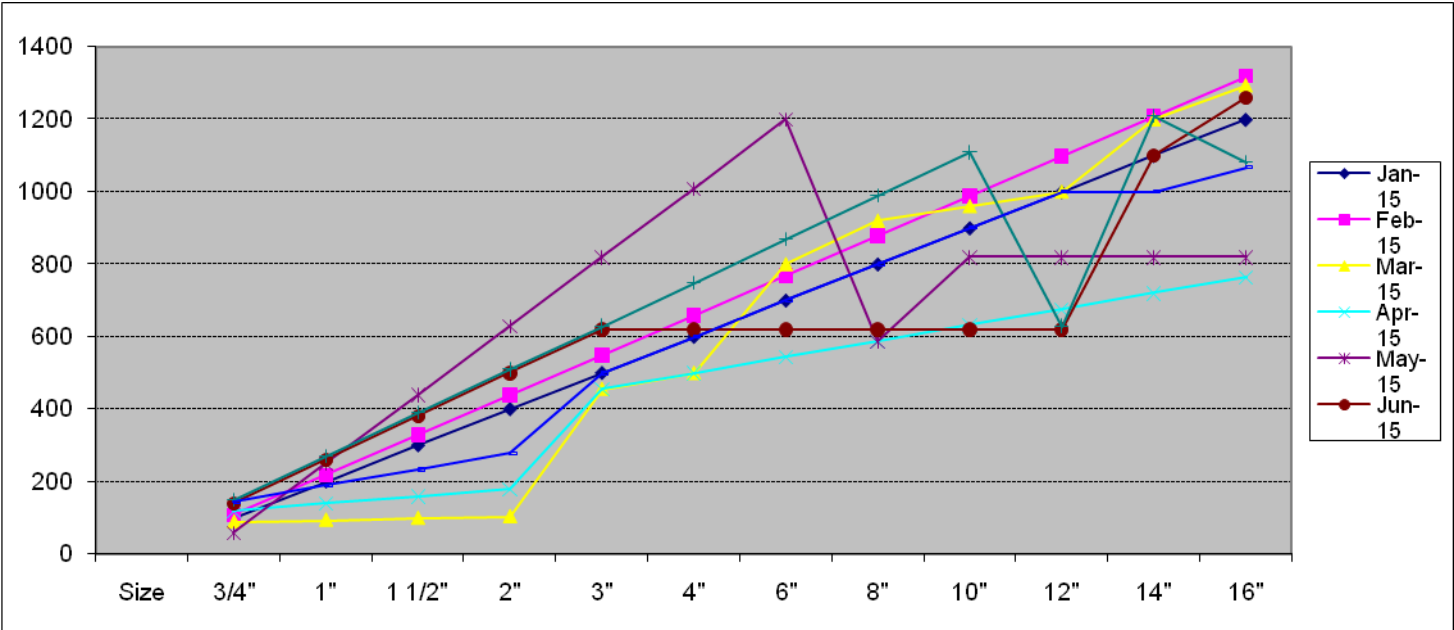


## Sample:2

Consumption Pattern Size Wise in kilo liter: Monthly Basis



Sample 2 Continuation



**Sample:3**

Graphical Representation of Consumption Patter : Selected Consumer monthly basis

ENTER

Select Month		
CAN	From	To

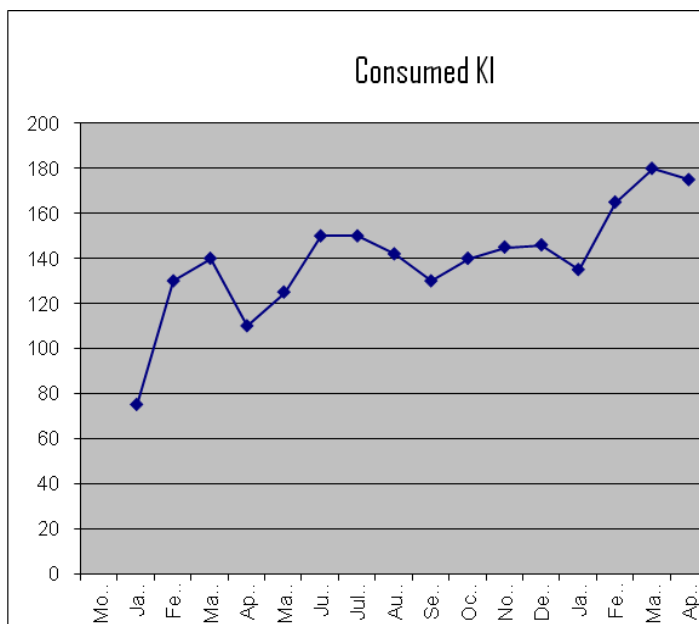
Name of Consumer	
Address	
Division	
PipeSize	
Category	
Meter ID	
Installation Date	
Rudra (3G) Date	

Consumption Pattern: Selected CAN

## Consumed KI

## Month

Jan-15	75
Feb-15	130
Mar-15	140
Apr-15	110
May-15	125
Jun-15	150
Jul-15	150
Aug-15	142
Sep-15	130
Oct-15	140
Nov-15	145
Dec-15	146
Jan-16	135
Feb-16	165
Mar-16	180
Apr-16	175



**Sample:4**

## Graphical Representation of Consumption Patter : Selected Consumer Daily basis

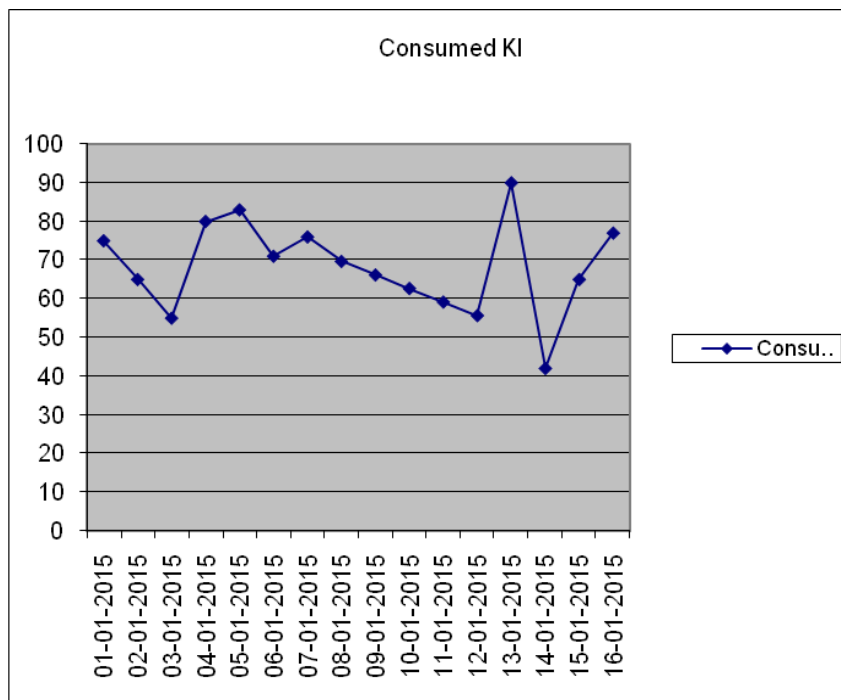
ENTER

Select Date	
CAN	From To

Name of Consumer	
Address	
Division	
PipeSize	
Category	
Meter ID	
Installation Date	
Rudra (3G) Date	

## Consumption Pattern: Selected CAN

Day	Consumed KI
1-Jan	75
2-Jan	65
3-Jan	55
4-Jan	80
5-Jan	83
6-Jan	71
7-Jan	76
8-Jan	70
9-Jan	66
10-Jan	63
11-Jan	59
12-Jan	56
13-Jan	90
14-Jan	42
15-Jan	65
16-Jan	77



# **SECTION-V**

## **SPECIAL CONDITIONS**

## Section-V

### SPECIAL CONDITIONS

#### A. General

1. The scope of tenderer includes the hire charges for SIM card and data transmission charges up to HMWSSB data centre and therefore the same shall be borne by the successful tenderer.
2. Tolerance limits for AMR meters with physical calibration shall be within the range of  $\pm 2\%$  as applicable.
3. If the AMR meter record incorrect readings which differ by more than 2%, a penalty of Rs.1, 000/- per each AMR meter shall be levied.
4. Down time allowed for any AMR meter is 48 Hours and down time will be considered from the time of alert from AMR unit. If not functioning AMR unit that the agency personal should be thoroughly monitoring about failures and to take up down time from the actual time of failures.
5. At any point of time, 99.5% of AMR meters shall work, and the non -functioning of AMR meters shall not exceed 0.5%.
6. At any point of time, less than 0.5% of AMR meters shall be allowed to be under repair stage. All the meters which are under repair over and above 0.5% shall be levied with a penalty @ Rs:3000/- per day.
7. The contractor is required to adhere to the Programme of Schedule of manufacturing, testing, supplying, installation and commissioning of the AMR meters with in **initial Twelve (12) months period** , failing which penalty at Rs.250=00 per uninstalled meter per day shall be levied up to a max. of **5%** of the Total Contract Value.
8. Penalties for non performance of installed and commissioned AMR meters over the allowed period of two days shall be levied @ Rs.10, 000/- per day per each AMR meter up to 0.5% of AMR meters.
9. Payments for CAMC for five years shall be released to the agency as per quoted rates and as agreed in the agreement.
10. Payments towards balance 40% shall be arranged to the agency on annual basis. The initial 60% payments to the agency will start from the date of completion of successfully installation, testing and commissioning of AMR water meters after satisfactory performance observed for three months period.
11. On submission of bills by the contractor with due certification by the General Manager (E).
12. With regard to the new water meters to be installed during the project implementation & CAM Contract period of five years (including warranty period), the operation and maintenance of those meters shall be total for a period of sixty (60) months from the succeeding month of installation and commissioning.
13. The successful tenderer is required to impart training to HMWSSB departmental staff during the maintenance period.

14. The successful tenderer shall give provision/ screen / web services for accessing CAN wise meter readings live reading, hourly, monthly or for a specific period.
15. Attending repairs if any to the existing meter chambers and their maintenance is also in the scope of the contract.
16. The space required will be provided by the HMWSSB within the HMWSSB premises if available to the Agencies for accommodating the test bench facility duly collecting the necessary rental charges as per market rates. If not the agency has to make its own arrangements and load the same in their on site comprehensive annual maintenance (CAM) Contract.
17. If any existing valid FCRI approval certificates to meters will be considered, but as and when required the meters shall be sent to FCRI. Which shall be got approved from HMWSSB for performance test from the lot installed by the Agency and the charges for handling, Engineer's conveyance & stay etc charges shall be borne by the Agency.
18. The Agencies have to prove that the GSM Technologies for AMR meters which varies from 25mm dia. to 300mm dia under this contract shall be integrated with the HMWSSB's existing Revenue Billing System data base as per HMWSSB's requirement and as directed by the HMWSSB Officers.
19. The formats shall be generated in the system by the successful Agencies in Tab/Comma Separated Value formats to integrate with the HMWSSB Revenue Billing System on meter readings data on **hourly basis** daily, weekly and monthly report basis.
20. The taxes, duties and other levies etc will be included in the capital cost & CAM cost to be quoted by the agency.
21. The HMWSSB has under discretion may extend installation of new upcoming connections with AMR meters during the contractual period **up to 50% of tender quantity** and the payments shall be applicable as per the agreement with the successful bidder.
22. The qualification criteria mentioned in Tender document will remain the same and no further changes will be made.
23. Repairs to existing meter chambers / construction of meter chambers etc as per specifications is the job of the Agency, hence while quoting the rates the same may be considered.
24. The tentative list of water meters is enclosed at Annexure "C". The bidder may be required to install water meters on the water connections that may come up during the currency of the contract in the project area in future. This work will be carried out in consultation with & as directed by the HMWSSB. The bidder shall procure, supply and install all the water meters strictly against the written site clearance from HMWSSB. Prior to this, successful bidder shall conduct a joint survey with HMWSSB officers of the sites where water meters are to be installed.
25. The selected eligible bidder has to provide the demonstration of his remote meter reading.



26. The quantities mentioned in Vol – II of Schedule – ‘A’ Bill of Quantities’ are only approximate and if additional quantities are required during the contract period, the bidder will be bound to supply the said additional quantities at the accepted rates, the **additional quantity up to 50% of the bid quantity or varies of each meter size.**
27. Testing for **performance** would be as per ISO: 4064, Class-B standards etc; at FCRI, Kerala, and test report shall be submitted to HMWSSB. The cost of the testing fees, traveling & lodging of all concerned including HMWSSB engineers will be the responsibility of the bidder.
28. The bidder shall be responsible for all losses, destructions & damages and all deterioration of the meters in transit. He shall also make all necessary insurance arrangements, for transit & even after installation & during maintenance period. The successful bidder has to hand over the installation in full working order to HMWSSB after the project contract period.

#### **B. Installation of AMR Meters**

- 1) The bidder shall install the water meters as per **IS / ISO** installation standards & manufacturer’s recommendations, at the existing locations of HMWSSB or at any other location, as per the program approved by HMWSSB. He shall also suggest the preventive arrangement required to be taken by the consumers to avoid damages to installed water meters. Issuing guidelines for suitable location & installation system / procedures, etc, will be the responsibility of bidder.
- 2) The meters shall remain in bidder’s custody in every respect at the risk of bidder till the expiry of the contract period. He should take all care to protect the meters from misuse, tampering, theft or any other damage. HMWSSB does not undertake any responsibility for damage or loss of installed meters. In case of damage or loss, the bidder shall repair or replace within a prescribed time period and will be responsible for making good the value of any Non revenue water that may result because of damage or loss of meters.
- 3) The bidder shall submit monthly progress & completion report of the work under the contract in duplicate to HMWSSB, along with soft copy of the same.

#### **C. Maintenance of AMR Water Meters during the Contract period**

- 1) The bidder shall give necessary test certificates in respect of all sizes of water meters along with entire A.M.R. system & shall provide comprehensive maintenance and support afterwards for 60 months after the initial **Twelve (12)** months installation period.
- 2) If any AMR meter is deliberately damaged it should be brought to the Board engineer in-charge who in turn will give the enquiry report. Based on the enquiry report if proved HMWSSB will bear the cost the meter duly recovering the suitable charges from consumer. The bidder has to replace/ repair the AMR meter immediately without waiting for HMWSSB payment to the bidder.
- 3) The accuracy of the installed water meters will be tested periodically, if desired or if disputed and if not found accurate within the acceptable / permissible limit, the bidders will replace the meter at free of cost.

- 4) The installed water meters shall be the property of the HMWSSB and after the expiry of the contract period, the metering system shall be handed over in working condition to the HMWSSB at the end of the contract period.
- 5) In the event of breach of any conditions, the HMWSSB will recover liquidated damages to the extent of 10% of contract value and by forfeiting the Security Deposits and enter into a separate contract agreement with any other supplier.
- 6) After supply & installation of water meter, service facility should be assured in the bid. During the contract period, the bidder shall as and when required, carryout necessary repairs to the installed water meters or any parts thereof or replacement of entire meter if necessary, failing which the bidder is liable to pay the value of resulting NRW to HMWSSB.
- 7) 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.
- 8) In case of any disputes, the HMWSSB will settle the disputes as per the existing policy.
- 9) The bidder must establish a local office equipped with telephones, fax machines, e-mail address etc with adequate manpower as a service centre. For removing / repairs of meters and fixing of meters, workman should be arranged by the bidder only.

#### **D. Operations**

- 1) On receipt of the complaint, the representative of the bidder should go to the site of work with all spares, necessary tools & tackles, tested meter and remove the defective water meter and replace the same with tested working water meter. Any works like replacement of GI pipes / Specials, cutting gland and breaking of the concrete, etc, shall be carried out through the consumer at his cost.
- 2) The removed water meter shall be preferably inspected at site & all minor repairs / replacement of parts, strainer, etc, which shall not affect the performance of the water meter, will be done at the site itself, in case,
- 3) The defective water meter should be removed and new tested water meter should be installed immediately after receipt of intimation from the HMWSSB. The bidder may take defective water meter to his work place to rectify the defect and to keep duly calibrated & retested for subsequent use.
- 4) The tenderer shall provide test bench facility in HMWSSB premises
- 5) Complaints regarding abnormal / subnormal readings will also be treated as defective meters. The bidder has to arrange for the replacement of such water meters with duly tested meters.
- 6) If the factory seal of the Meter is found deliberately tampered then it should be brought to the notice of the board engineer in-charge who in-turn will conduct an enquiry and give a report. Based on the enquiry report if proved HMWSSB will bear the cost the meter duly recovering the suitable charges from consumer. The bidder has to replace/ repair the AMR meter immediately without waiting for HMWSS payment to the bidder.

- 7) The bidder shall successfully attend the complaint within 2 (two) days from the receipt of complaint and its compliance shall be certified by HMWSSB officer. Failing to do so, the bidder will be charged a penalty.
- 8) The bidder shall have adequate trained staff with reserve manpower for management of emergency in the absence of the appointed staff.
- 9) The bidder shall appoint coordinating officer / supervisor for keeping liaison with the HMWSSB for said meter reading & maintenance work.
- 10) The staff should use the photo identity card issued by bidder & counter signed by the HMWSSB authorities, while on duty.
- 11) For the new connection granted to the consumer, the bidder should install the water meter within 48 (Forty eight) hours after written instruction from HMWSSB.
- 12) In case of failure in performing the assigned duties, the HMWSSB will carry out the work through its own staff or by appointing a separate agency at the risk & cost of the bidder & the penalty as described in the contract will be recovered from the bidder.
- 13) The bidder shall immediately inform to HMWSSB Engineers about any illegal water connections that come to the notice of his staff.
- 14) It is mandatory that all meter readings shall be obtained by A.M.R. system only.

## **Section-VI**

### **Technical Template**

## Technical details template

S.No	Particulars	Name of file uploaded	Page Number
1	EMD for Rs:4,90,300=00 (in the shape of DD/BG)		
2	Solvency Certificate for min. of Rs:82.72 lakhs		
3	Valid VAT registration/ST/CST certificate		
4	PAN card and latest Income Tax return filed with the Department of Income Tax, GOI.		
5	ISI/EEC/MID – higher standards approvals.		
6	Identification of Financial data sheets and Turn overs duly certified by the Chartered Accountant.		
7	The Firm Registration certificate/Manufacturer's registration certificate/Contractor's registration certificate/Authorized Dealers certificate issued by the Meters Manufacturer.		
8	Experience certificate of executing similar type of work as per qualification criteria of NIT.		
9	Meters Manufacturer's Authorization form (Schedule-U)		
10	Affidavit		
11	Power of Attorney		
12	History of Criminal cases		
13	Record of litigation and arbitration		
14	Performance certification is 'Optional' for sizes of 50mm dia & above at the time of bidding but this condition shall 'Mandatory' for successful bidder and the successful bidder shall produce life cycle test reports as per norms of FCRI, Govt. of India, Palakkad for remaining all sizes of water meters with in 3 months period from the date of entering into agreement to this project and only FCRI certified sizes meters will be allowed for execution..		
15	Declaration for bid validity period not less than 90 days from the date of Price bid opening.		
16	Bid Form.		
17	Joint venture/Consortium agreement		
18	Annexure 'A' general Data Sheet		
19	Annexure 'B' technical data Sheet		
20	Sales tax / VAT Clearance certificate		
21	Schedule-F, part-A,B,C&D		
22	Schedule-J, Bio-data of Technical Personnel involved in execution of contract.		
23	Technical Proposal as per Scope and Specifications of NIT on bidders letter head.		
24	Any other documents relevant to Project		
<b>Note: The bidder have to strictly follow the formats available on line without any change in particulars &amp; Formats. In case any changes made in particulars or formats, then the same will not be considered for evaluation.</b>			

## **Section-VII**

### **Annexures**

**ANNEXURE – ‘A’ (Mandatory Form)**

**GENERAL DATA SHEET**

<b>Sr. No.</b>	<b>Description</b>	<b>Offered by Bidder</b>	<b>Details attached at page no.</b>
1	Bidder Type :- i) Water meter Manufacturer. ii) Authorized Dealer / Supplier.		
2	Status of Bidder - i) Proprietary Firm ii) Partnership Firm iii) Private Ltd. iv) Public Ltd. v) Joint Venture / Consortium		
3	Partnership Deed -		
4	Memorandum & Articles of Association of company/firm		
5	Power of Attorney		
6	E.M.D. paid – (DD/BG)		
7	Copy Sales Tax / CST Certificate/VAT certificate		
8	Copy of PAN Card		
9	Solvency Certificate		
10	Authorization letter from water meter manufacturer – (Schedule-U)		
12	Annual turnover of the Bidder for last ten financial years duly attested by the Chartered Accountant		
13	Experience of similar work: The water meter manufacturer shall have past experience of supply; installation & commissioning of at least <b>245 nos</b> of AMR meters with GSM technology for sizes of water meters are not less than 25mm dia. The documents establishing this proven experience etc, shall be submitted accordingly.		
14	Experience of similar work: The water meter manufacturer shall have past experience of maintenance of at least <b>15 months</b> period of AMR meters with GSM technology for sizes of water meters are not less than 25mm dia. The documents establishing this proven experience etc, shall be submitted accordingly.		
15	Validity of bid - 90 days		
16	Whether all HMWSSB bid conditions are accepted		

**ANNEXURE – ‘B’ (Mandatory Form)**  
**TECHNICAL DATA SHEET**

Sr. No.	Description	Details Offered by Bidder	Details attached at page no.
1	Water meter makes offered for each size of meter (25mm,40mm,50mm,75mm,100mm,150mm,200mm,250mm& 300mm dia sizes)		
2	AMR make offered		
3	Make / Model for all size water meters and their sizes in mm. (Specific technical leaflets are to be submitted)		
4	ISI/EEC/MID approval certificates for all sizes of water meters clearly mentioning the sizes in mm.		
5	If the ISI/ EEC/MID approval certificates are in foreign language other than English, translated versions of the same in English to be submitted by the bidder.		
6	Permanent stamping of ISI/ EEC/MID approval number on the dial of water meter.		
7	Performance certification is 'Optional' for sizes of 50mm dia & above at the time of bidding but this condition shall 'Mandatory' for successful bidder and the successful bidder shall produce life cycle test reports from FCRI, Govt. of India, Palakkad for remaining all sizes of water meters with in 3 months period from the date of entering into agreement to this project and only FCRI certified sizes meters will be allowed for execution..		
8	Every water meter shall be in accordance with anti-magnetic nature to avoid the effect of external magnet. (no magnetic effect as per ISO : 4064/IS779/IS2373)		
9	The manufacturer shall specify the frequency range of the AMR operating system & shall possess the necessary license of said operating frequency, issued by GOI / DOT. In case if he claims frequency operation in the free range, necessary documents / clearance from GOI / DOT shall be submitted, along with the offer.		
10	Water meter and Meter interface unit should have IP 68 Protection Class as per NIT.		
11	GSM modem should have IP68 if integrated with AMR Meter and IP67 If NOT integrated with AMR		
12	If integral water meters is proposed in which interpreter/ GSM modem constitutes part of the water meter (an integral meter), the integral meter must meet IP68 sealing standards		
13	A.M.R. metering data can be transferred directly to HMWSSB's Server (or) vendor Server duly integrated with the existing RBS data base system. (Remote meter reading through GSM Network based on GPRS technology seamlessly without using any wire or cable and data which can be directly sent to HMWSSB's Server (or) vendor Server duly integrating with HMWSSB billing system		



### **ANNEXURE – ‘C’**

Approx. No. of Water meters

<b>Sl.No.</b>	<b>Size of AMR meter</b>	<b>Qty. in numbers</b>
(1)	25mm dia with GSM Technology	725
(2)	40mm dia with GSM Technology	85
(3)	50mm dia with GSM Technology.	94
(4)	75mm dia with GSM Technology.	16
(5)	100mm dia with GSM Technology.	32
(6)	150mm dia with GSM Technology	11
(10)	200mm dia with GSM Technology.	9
(11)	250mm dia with GSM Technology.	5
(12)	300mm dia with GSM Technology.	2
	<b>Total:</b>	<b>979</b>

## **ANNEXURE – ‘D’**

### **Terms & conditions for Joint Venture / Consortium formation**

1. The HMWSSB shall allow the Joint ventures / Consortium having maximum of 3 (Three) firms as partners.
2. The partners of the Joint venture / Consortium shall fulfill the following conditions.
  - a. At least one of the members of the joint venture shall be appointed as the lead member / partner in charge. The partner in charge shall be responsible to incur all liabilities and receive instructions for on behalf of any or all partners of the Joint Venture / Consortium. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the parties.
  - b. The bid, and in case of a successful bid, the Contract Agreement with the employer shall be signed so as to be legally bidding on all the partners.
  - c. The description of the proposed participation and responsibility of each partner in the Joint Venture/ Consortium for planning, construction equipment & finance for the execution of the works shall be clearly spelt out in the MOU.
  - d. The partner-in-charge shall be authorized to incur liabilities & receive instructions for & on behalf of any & all the partners of the Joint venture / Consortium & the entire execution of the contract including payment shall be done exclusively with the partner-in-charge.
  - e. All the partners of the Joint Venture / Consortium shall be jointly and severally responsible for the execution of the contract in accordance with the contract terms and statements to this effect shall be included in the authorization of JV / Consortium agreement to be submitted along with the bid.
  - f. A copy of the registered Joint Venture / Consortium Agreement (if these are already existing) confirming above aspects , duly signed by legally authorized signatories of all partners in the presence of a Magistrate of an Indian Court of Law / Notary Public , on a stamp paper shall be submitted along with the bid. In case of intended Joint Ventures / Consortium, the MOU confirming the above aspects shall be submitted along with the bid. The formal agreement on a stamp paper confirming the above aspects signed in the presence of magistrate of an Indian Court of Law / Notary Public shall be submitted within 30 days of the issue of Letter of Intent (LOI) in case of successful bidder, failing which the LOI will stand cancelled and the bid security will be forfeited.

## Annexure –1

### Joint Venture Agreement for Consortium

(On Non – judicial stamp paper of Rs: 100 duly attested by notary public)

In the consortium shall be as per the provisions of This Memorandum of Understanding (MoU) entered \_\_\_\_\_ into this \_\_\_\_\_ day \_\_\_\_\_ of 201\_\_ at \_\_\_\_\_ among \_\_\_\_\_ (hereinafter referred as" ----- ") and having office at \_\_\_\_\_ Party of the First Part \_\_\_\_\_ (hereinafter referred as" ----- ") and having office at \_\_\_\_\_ Party of the Second Part \_\_\_\_\_ (hereinafter referred as" ----- ") and having office at \_\_\_\_\_ Party of the Third Part . The parties are individually referred to as Party and collectively as Parties. Whereas HMWSSB (the "Authority") has invited Proposals from interested Firms and/or Consortiums for Appointment of Private operator for \_\_\_\_\_ Project[s]. AND WHEREAS the Parties have had discussions for formation of a Consortium for bidding for the said Project and have reached an understanding on the following points with respect to the Parties rights and obligations towards each other and their working relationship.

IT IS HEREBY AS MUTUAL UNDERSTANDING OF THE PARTIES AGREED AND DECLARED AS FOLLOWS:

1. That M/s \_\_\_\_\_ who is the Lead Members of the Consortium commits to hold a minimum stake equal to \_\_\_% of the Consortium at all times during the Contract Period.
2. That the shareholding commitments shall be recorded in the Contract and no changes shall be allowed thereof, except in accordance with the provisions of the Contract document.
3. That the Parties shall carry out all responsibilities as per terms of the Contract.
4. That the roles and the responsibilities of each Party at each stage of the Bidding shall be as follows:

Name of Consortium Member	Role (Lead Member or Member)
Percentage Share in Consortium	Responsibilities

5. That the Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously. They shall not negotiate with any other party for this Project.
6. That the parties shall be jointly and severally liable for execution of the project.
7. That this MoU shall be governed in accordance with the laws of India and courts in Hyderabad, India shall have exclusive jurisdiction to adjudicate disputes arising from the terms herein.

In witness whereof the Parties affirm that the information provided is accurate and true and have caused this MoU to be duly executed on the date and year above mentioned.

Name, Designation and Signature of

Authorized signatory of Party of the first part:

Authorized signatory of Party of the second part:

Authorized signatory of Party of the third part:

Witness 1

Witness 2

**Annexure –2**  
**UNDERTAKING**  
**(Mandatory Model form)**

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 ORGANISATION/DEPARTMENT AS ON

DATE:.....”

SIGNATURE

## **Section-VII**

### **Forms**

**BID FORM**  
(Mandate Form)

To:

**The Chief General Manager (Engg.),**  
Revenue Circle, HMWS&SB,  
Kairatabad, Hyderabad – 500 004

Sir,

I / We have read and examined the following documents relating to work of -  
\_\_\_\_\_ **at** \_\_\_\_\_ for

HMWSSB

Bid Notice

Instructions to Bidders.

Bid form.

Form (ECS).

Contract Agreement Form

Bankers Guarantee Form.

General Conditions of Contract.

Special Conditions.

Technical Specifications.

Schedules of supplemental information.

Annexure-1 (JV/ Consortium agreement form)

Annexure-2 (undertaking)

Annexure 'A'. – General Data Sheet.

Annexure 'B'. – Technical Data Sheet.

Annexure 'C'. – Proposed number of water meters and its details.

Annexure 'D'. – Terms and Conditions of JV / Consortium.

Price bid. (Volume-II)

Abbreviations.

Addenda, if any.

1. I / We .....  
(full name in capital letters starting with surname), the proprietor / Managing partner / Managing Director / Holder of the business for the establishment / firm / registered company named herein below do hereby offer to supply / work of

\_\_\_\_\_ **at** \_\_\_\_\_  
referred to in the specifications and Bill of Quantities to the accompanying form of contract at the rates entered in the Bill of Quantities sent herewith and signed by me / us.

2. I / We hereby bid for execution of the works referred to in the aforesaid documents, upon the terms and conditions or referred to therein and in accordance in all respects with the specifications and other relevant details at the rates entered in the aforesaid bill of quantities.
3. According to your requirements for payment of E.M.D. amounting to **Rs: 4,90,300=00** I / We have annexed the D.D./B.G along with the technical bid.

4. I / We hereby request you not to enter into a contract with any other person/s for the execution of the works until notice of non-acceptance of this bid has first been communicated to me/us, and in consideration of your agreeing to refrain from so doing I / We \_\_\_\_\_ agree, not to withdraw the offer constituted by this bid before the date of communication to me/us of such notice of non-acceptance,
5. I / We also agree to keep this bid open for acceptance for a period of **90 days** from the date fixed for opening the same and not to make any modifications in its terms and conditions which are not acceptable to the Board.
6. I / We agree that the Board shall, without prejudice to any other right or remedy be at liberty to forfeit the said Earnest money absolutely, if
  - (a) I / We fail to keep the bid open as aforesaid
  - (b) I / We fail to execute the formal contract or make the contract deposit when called upon to do so.
  - (c) I / We do not commence the work on or before the date specified in the work order.
  - (d) I / we do not fulfill the mandatory conditions as stipulated in IT clause
7. I/We \_\_\_\_\_  
 have filled in the accompanying bid with full knowledge of liabilities and therefore we will not raise any objections or disputes in any manner relating to any action including forfeiture of deposit and blacklisting for giving any Information, which is, found to be incorrect and against the instructions and directions given in this bid.
8. I / We further agree and undertake that in the event it is revealed subsequently after the allotment of work / contract to me /us that any information given by me / us in this bid is false or incorrect I / We shall compensate the HMWSSB for any such losses or inconvenience caused to the Board in any manner and will not resist any claim for such compensation to any ground whatsoever.
9. I / We agree to undertake that I / We shall not claim in such case any amount by way of damage or compensation for cancellation of the contract given to me / us or any work assigned to me / us or is withdrawn by the Board.
10. I / We hereby further agree to pay all the charges of whatsoever nature in connection with the preparation, stamping and execution of the said contract.

**Full name and address with**

**Telephone nos. if any**

Full names and private residential addresses with telephone nos. of all the partners constituting this firm:

E-Mail I.D. of the firm:-

**Signature of the Bidder**

## FORM (ECS)

Electronic Clearing Service (Credit Clearing)

### Model Mandate Form

1) Investor/Customer's Name:


2) Particulars of Bank account:

A Name of Bank :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B Name of the branch:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Address :

Telephone No. :

C 9-Digit code number of the bank and branch appearing on the MICR Cheque issued by the bank

--	--	--	--	--	--	--	--	--

D Type of the amount (S.B. current or Cash Credit) with code (10/11/13)

--	--

E Ledger and ledger folio no. \_\_\_\_\_

F Account number (as appearing on the cheque book)

.....

(In lieu of the bank certificate to be obtained as under, please attach a blank

cancelled cheque or photocopy of a cheque or front page of your savings bank passbook issued by your bank for verification of the above particulars)

3) Date of effect:

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information. I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under the scheme.

(\_\_\_\_\_)

Signature of the Investor/Customer.

Date:

Certified that the particulars furnished above are correct as per our records.

Bank's stamp

(\_\_\_\_\_)

Signature of the authorized  
Official of the Bank.



**CONTRACT AGREEMENT FORM**  
(Model Form)

Bid \_\_\_\_\_ Dated \_\_\_\_\_

CGM (E) Revenue Circle No. \_\_\_\_\_

Contract for \_\_\_\_\_  
\_\_\_\_\_

This agreement made this day of \_\_\_\_\_ between Inhabitants of \_\_\_\_\_ carrying on business at \_\_\_\_\_ in \_\_\_\_\_ under the style and name of Messrs. \_\_\_\_\_

(Hereinafter called "the Contractor") of the one part and Shri. \_\_\_\_\_ the Chief General Manager, Revenue circle (hereinafter called "the CGM " in which expressions are included, unless the inclusion is inconsistency with the, context or meaning thereof, his successor or successors for the time being holding the office of the CGM of the Second Part and the Hyderabad Metropolitan Water Supply and Sewerage Board (hereinafter called "the Board") of the third part. WHEREAS the Contractor has bid for the works described above and his bid has been accepted by the CGM, NOW THIS AGREEMENT WITNESSES as follows: -

- 1) In this agreement words expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract for works hereinafter referred to.
- 2) The following documents shall be deemed to form and be read and construed as part of this agreement viz.

a) The said Bid and letter on acceptance	b) The Specifications
c) The conditions of contract	d) The appendices
e) The Schedule of Prices	f) The Performance Security
g) Instructions to bidders	

- 3) In consideration of the payment to be made by the Board to hereby to carry out the work of \_\_\_\_\_ in conformity in all respects with the provisions of the contract.

- 4) The Board hereby covenants to pay to the Contractor in consideration of carrying out the work of \_\_\_\_\_, the Contract Price at times in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have caused their respective common seals to be hereunto affixed (for have hereunto set their respective hands and seals) the day and year above written.

Signed and delivered by the  
Contractor\_\_\_\_\_

in the presence of & style of  
\_\_\_\_\_

Trading under the name  
Contractors.

Full  
name\_\_\_\_\_  
Address\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

in the presence  
of\_\_\_\_\_

The common seal of the HMWSS Board  
was hereunto affixed on the-----  
-----200\_\_ in the presence of two  
members of the standing committee of the  
Board.

1) \_\_\_\_\_  
\_\_\_\_\_

**Note:**

The successful bidders will have to pay for preparing contract documents, legal charges and stationery charges.

## **BANKER'S GUARANTEE IN LIEU OF CONTRACT DEPOSIT FOR WORK**

(Model Form)

THIS INDENTURE MADE THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20 BETWEEN THE \_\_\_\_\_ BANK incorporated under the English / Indian Companies Acts and carrying on business in .....city of India herein after referred to as "the banks which expressions shall be deemed to include its successor and assigns) of the first part,

\_\_\_\_\_ inhabitation carrying on business at

in \_\_\_\_\_ city of India under the style and name of M/s. \_\_\_\_\_

(Herein after referred to as the contractor) of the second part.

Shri. \_\_\_\_\_ the CGM of The Hyderabad Metropolitan Water Supply and Sewerage Board, Hyderabad (hereinafter referred to as the CGM which expression shall be deemed, also to include his successor or successors for the time being in the said office of The Hyderabad Metropolitan Water Supply and Sewerage Board,) of the third part whereas the contractors have submitted to the CGM bid for the execution of the work of \_\_\_\_\_

\_\_\_\_\_ and the terms of such bid/contract required that the contractor shall deposit with the CGM as earnest money and/or the security, \_\_\_\_\_ a \_\_\_\_\_ sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_)

\_\_\_\_\_) AND WHEREAS if and when any such bid is accepted by the CGM, the contract to be entered into in furtherance thereof by the contractors will provide that such deposit shall remain with and be appropriated by CGM towards security deposit to be taken under the contract and redeemable by the contractors, if they shall duly and faithfully carry out the terms and provisions of such contract and shall duly satisfy all claims properly chargeable against them there under and whereas the contractors are constituents of the bank and in order to facilitate the keeping of the accounts of the contractors, the bank with the consent and concurrence of the contractor has requested the CGM to accept the undertaking of the bank hereinafter contained in place of the contractors depositing with the CGM the said amount as earnest money and/or the security as aforesaid AND WHEREAS accordingly the CGM has agreed to accept such undertaking NOW THIS AGREEMENT WITNESSES that in consideration of the premises, the bank as the request of the contractors ( hereby testified ) UNDERTAKES WITH the CGM to pay upon demand in writing, whenever required by him, from time to time, so to do, a sum not exceeding in the whole Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) under the terms of the said bid and/or the contract B.G. is valid upto \_\_\_\_\_. Notwithstanding anything what has been stated above, our liability under the above guarantee is

restricted to Rs. \_\_\_\_\_ only and guarantee shall remain in force up to \_\_\_\_\_  
unless the demand or claim under this guarantee is made on us in writing on or before \_\_\_\_\_ all your right under the above guarantee shall be forfeited and we shall be released from all liabilities under the guarantee thereafter.

IN WITNESS WHEREOF:

**Witness (1)**

The duly consigned Attorney

CGM \_\_\_\_\_

Name :- \_\_\_\_\_

**Witness (2)**

Name :- \_\_\_\_\_

**TECHNICAL PROPOSAL SUBMISSION FORM**  
(MODEL MANDATORY FORM)

*Date:*

To:  
The Chief General Manager (E)  
HMWSSB  
Revenue Circle

Gentlemen:

We, the undersigned, offer to provide the services for [*Title of consulting services*] in accordance with your Proposal dated [*Date*] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal in sealed envelope.

If negotiations are held during the period of validity of the Proposal, i.e., before [*Date*] we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature:

Name and Title of Signatory:

Name of Firm:

Address:

**SCHEDULE OF SUPPLEMENTARY INFORMATION - D**

(Mandatory Model Form)

**SALES TAX CLEARANCE CERTIFICATE**

Office of the Commercial Tax Officer,  
\_\_\_\_\_ Circle  
\_\_\_\_\_

Sl. No.

Dated:

**CERTIFICATE**

This is to certify that M/s. \_\_\_\_\_  
having \_\_\_\_\_ their \_\_\_\_\_ Regd. \_\_\_\_\_ Office \_\_\_\_\_ at \_\_\_\_\_ address \_\_\_\_\_

\_\_\_\_\_ are on the rolls of the  
Commercial Tax Officer, \_\_\_\_\_ Circle, \_\_\_\_\_ with  
the following registration number(s):-

APGST No. \_\_\_\_\_

CST No. \_\_\_\_\_

They have filed their monthly A-2 returns and have paid tax up to \_\_\_\_\_  
under the APGST and CST Act and the assessment has  
been completed for the Financial Year \_\_\_\_\_.

Commercial Tax Officer,

\_\_\_\_\_ Circle  
\_\_\_\_\_

**SCHEDULE OF SUPPLEMENTARY INFORMATION - E**  
**IDENTIFICATION AND FINANCIAL DATA SHEET**

(Mandatory Model Forms)

1. Audited Financial Statements (Balance Sheet and Profit and loss account) for the last five years (Preceding last financial year) including Contingent Liabilities and Projects in progress duly certified by the Chartered Accountant in the format enclosed. (Illustrative example is also enclosed for guidance).
2. Financial statement (Balance Sheet and Profit and loss account) for the previous financial year including liabilities and Contingent Liabilities and Projects in progress in the same format as above (in case audited accounts are not available)
3. Financial statement (balance sheet and Profit & Loss account) for the latest financial position (2 to 3 months prior to tender date) including liabilities, Contingent liabilities in the same format as above.
4. Solvency Certificate from Nationalized or Scheduled Bank not earlier than 6 months.
5. Certificate for credit limits from Nationalized or Scheduled Bank not earlier than 6 months Bank.

**Note:**

1. If the tenderer is a company, Annual reports of the financial years **2005-2006 to 2014-2015**, along with the audited reports under the Companies Act shall be furnished.
2. In case of tenderers other than the companies, if the turnover in any of the above financial years exceeds Rs. 40/- Lakhs per annum, the audited accounts along with the auditor's certificates under section 44 AB of the Income Tax Act shall be furnished. If the audited reports under section 44AB of Income Tax are not furnished for every year, it will be deemed that the turn over for that year was less than Rs.40 lakhs.
3. In case of tenderers other than the companies, if the turn over in any of the above financial years does not exceed Rs. 40 Lakhs per annum, the following certificate shall be given by the Chartered Accountant for each year for the Profit and Loss Account and the Balance sheet.  
  
“ We have audited the above Profit and Loss Account / Balance Sheet of \_\_\_\_\_  
\_\_\_\_\_ as on \_\_\_\_\_ for the financial year ending \_\_\_\_\_  
\_\_\_\_\_ and in our opinion the said accounts give a true and fair view. The said balance sheet and Profit & Loss Account are in agreement with books of accounts and returns produced and that we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of the audit.
4. Originals of the certificates shall be produced at the time of opening tenders.

<b>BALANCE SHEET (PAST 10 YEARS from 2005-06 to 2014-15)</b>					
	<b>(Rs.Lakhs)</b>				
<b>Liabilities</b>					
1. Paid up Capital					
2. Reserves and Surplus					
3. Borrowings:					
3.1Term loan from Fis					
3.2Working Capital Loans					
3.3Other Loans					
3.4Interest Accrued & Due on Loans					
<b>Sub – total</b>					
4. Current Liabilities & Provisions					
4.1Creditors for Materials					
4.2Advances on Contracts					
4.3 Provisions					
<b>Sub Total</b>					
<b>TOTAL</b>					
<b>Assets</b>					
5.Fixed Assets - Gross Block					
Less Cumulative Depreciation					
Net Fixed Assets					
6. Capital Work-in-Progress					
7. Investments					
8. Current Assets, Loans, Advances					
8.1 Inventories					
8.2 Sundry Debtors					
8.3 Cash and Bank Balance					
8.4 Loans and Advances					
<b>Sub-Total</b>					
9. Expenses and losses to the extent not written off					
<b>TOTAL</b>					
<b>Financial Indicators:</b>					
* Networth					
* Current Ratio					
* Liquid Ratio					
* Capital Employed					
* Debt : Equity Ratio					



PROFIT & LOSS ACCOUNT(PAST 10 YEARS from 2005-06 to 2014-15)					
	(Rs.Lakh)				
<b>INCOME</b>					
1. Income From Operations					
2. Other Income					
<b>TOTAL</b>					
<b>EXPENDITURE</b>					
3. Materials					
4. Salaries and Wages					
5. Administrative and Other Exp.					
6. Interest					
7. Depreciation					
8. Deferred Revenue Exp. w/o					
9. Other Expenses w/o					
<b>10.Total Expenditure</b>					
<b>11.Profit Before Tax</b>					
12.Less Income tax					
<b>13.Profit After Tax</b>					
14.Prior Period Adjustments					
15.Extra - ordinary Items					
16.Profit Available For Appropriations					
17.Less Dividend					
<b>24.Retained Profit</b>					
<b>Financial Indicators :</b>					
* Profit Before Tax To :					
Capital Employed (%)					
Net Worth (%)					
Sales (%)					
Earning Per Share (Rs.)					
<b>* Cash Generated from Operations</b>					

**SCHEDULE OF SUPPLEMENTARY INFORMATION – F (Mandatory model Form)**

**PROJECT WISE EXPERIENCE**

**PART - A PHYSICAL ACHIEVEMENTS OF COMPLETED WORKS**

Name of project and location	Name and address of client, telephone, fax numbers	Brief description of work (as relevant to qualification criteria)	Period of completion (in years, e.g 3 months =0.25)		Total value of project (Rupees in Crores)		Quantity of work completed in each financial year of the project (lakh Rupees) Last Five Years (Year 1 being the first year or part year of the project)				
			Specified	Actual	Contract	Completed	2005-06				2014-15

	Name	Date
	Signature	Designation (Not less than the rank of General Manager (Engg.) or equivalent)
(Seal)	Counter signed by (Not lower than the rank of Chief General Manager (Engg.) or equivalent).	

Note: Certificates from the clients signed by a serving General Manager (Engg) (or equivalent) shall be furnished in proof of the above particulars the certificates shall be counter signed by a serving superintending Engineer or equivalent.

<b>PROJECT EXPERIENCE <u>(Mandatory model Form)</u></b>							
<b>PART B - ABSTRACT OF PHYSICAL ACHIEVEMENTS OF COMPLETED WORKS</b>							
S.N o.	Description of work item as per Qualification Criteria	Minimum quantity of work required	Quantity of work completed in each of the <b>last ten</b> financial years				
			2014-15				2005-06

		Name		Date
		Signature		Designation (Not less than the rank of General Manager (Engg.) or equivalent)
	(Seal)	Counter signed by (Not lower than the rank of Chief General Manager (Engg.) or equivalent).		
Note: Certificates from the clients signed by a serving General Manager (Engg) (or equivalent) shall be furnished in proof of the above particulars the certificates shall be counter signed by a serving Chief General Manager (Engg.) or equivalent.				

TENDERER

Chief General Manager (Engg)  
Revenue Circle, HMWSSB, Hyd-4

PROJECT WISE EXPERIENCE ( <u>Mandatory model Form</u> )								
PART C - FINANCIAL ACHIEVEMENTS OF COMPLETED WORKS								
S.No.	Name of project and location	Name and address of client (with telephone and fax)	Value of completed work (lakh Rs.)	Value of work completed each financial year (lakh Rs)				
				2014-15				2005-06

		Name		Date
		Signature		Designation (Not less than the rank of General Manager (Engg.) or equivalent)
	(Seal)	Counter signed by (Not lower than the rank of Chief General Manager (Engg.) or equivalent).		
Note: Certificates from the clients signed by a serving General Manager (Engg) (or equivalent) shall be furnished in proof of the above particulars the certificates shall be counter signed by a serving Chief General Manager (Engg.) or equivalent.				

TENDERER

Chief General Manager (Engg)  
Revenue Circle, HMWSSB, Hyd-4

PROJECT WISE EXPERIENCE <u>(Mandatory model Form)</u>				
PART D - FINANCIAL DETAILS OF WORKS AWARDED AND ONGOING WORKS TO BE EXECUTED BY CONTRACTOR DURING THE PERIOD OF THE WORK UNDER CONSIDERATION				
Sl No	Name of Project and Location	Name and address of client (telephone & fax)	Value of works to be executed during the period of completion of the work under consideration (lakh Rs)	
			awarded	balance of ongoing works

Name  
Signature

Date  
Designation  
(Not less than the rank of General Manager (Engg.) or equivalent)

(Seal)

Counter signed by  
(Not lower than the rank of Chief General Manager (Engg.) or equivalent).

Note : Certificates from the clients signed by an General Manager (Engg) (or equivalent) shall be furnished in proof of the above particulars.

The certificates shall be countersigned by a Chief General Manager (Engg.) or equivalent.

TENDERER

Chief General Manager (Engg)  
Revenue Circle, HMWSSB, Hyd-4

**SCHEDULE OF SUPPLEMENTARY INFORMATION – G (optional)**

**CONSTRUCTION EQUIPMENT / MANUFACTURING PLANT**

**DETAILS OF CONSTRUCTION EQUIPMENT IN POSSESSION OF THE CONTRACTOR (EITHER OWNED OR ON LEASE)**

S No	Description of Equipment	Manufacturer	Capacity	No in possessi on of Tenderer	Age(s )	Present condition	Present location	No required as per qualificati on criteria	No proposed to be brought to site

Note : I/We hereby confirm that the quantity and type of equipment to be deployed for construction will not be less than those indicated above and agree to bring more equipment, if so warranted, in the opinion of the General Manager (Engg) at no extra cost to HMWSSB.

		Name		Date	
		Signature		Designation	
	(Seal)				

**TENDERER**

**Chief General Manager (Engg)  
Revenue Circle, HMWSSB, Hyd-4**

SCHEDULE OF SUPPLEMENTARY INFORMATION - H (Optional)

**PERSONNEL**

S No	Required		Proposed		Experience		
	Qualification	No.	Qualification	No.	Nature of work	Required experience in years	Experience of the proposed person in years

Name : \_\_\_\_\_

Signature : \_\_\_\_\_

Date : \_\_\_\_\_

Seal of Company

Designation: \_\_\_\_\_

**TENDERER**

**SCHEDULE OF SUPPLEMENTARY INFORMATION – J (MANDATORY MODEL FORM)**  
**BIO-DATA OF TECHNICAL PERSONNEL OF THE TENDERER WHO WILL BE AVAILABLE FOR THE EXECUTION OF CONTRACT**  
(Furnish data separately for each of the personnel)

a) S.No.	:	
b) Name	:	
c) Designation	:	
d) Qualifications	:	
e) Duration of employment with Tenderer	:	
f) Years of professional experience	:	
g) Experience on works of similar nature during employment with Tenderer, and previous employment, if any. Details to be furnished in reverse order starting with present project :		

Name :

Signature :

Date :

Seal of Company	Designation:

**TENDERER**



**SCHEDULE OF SUPPLEMENTARY INFORMATION – K (Mandatory model form)**  
**RECORD OF ARBITRATION & LITIGATION**

The Tenderer shall record chronologically any disputes he has had with any of his previous Clients during the last 10 years, indicate whether Arbitration or Litigation, the nature, approximate duration and amount of claim involved in respective cases.

S no	Project Identification and Location	Name and Address of Client, tel & fax	Nature of Dispute					
			Description	Arbit'n/ Litigat' n	Period From - To	Amount Claimed (lakh Rs).	Result	In favour of Client/ Contractor

Name :

Date :

Signature :

Designation :

Seal of Company

TENDERER

**SCHEDULE OF SUPPLEMENTARY INFORMATION – L (Mandatory Model form)**

**HISTORY OF CRIMINAL CASES**

S No	Name of Police Station	Town or Village and District	FIR No & Date	Details of the charges	Stage of the case/ Result

Name :

Date :

Signature :

Designation :

Seal of Company

TENDERER

**SCHEDULE OF SUPPLEMENTARY INFORMATION – M**  
**GENERAL POWER OF ATTORNEY**

**(Mandatory Model form)**

By this power of Attorney, I/We ....., s/o  
..... aged about ..... years, r/o.  
.....  
....., Partners of . ..... having its  
registered ..... office ..... at  
.....hereby appoint  
....., aged about ..... years s/o.  
..... as our lawful attorney on behalf  
of the company, to do and execute all or any of the following acts, deed and things,  
that is to say:

- 1) To apply for, obtain and renew all licenses, permits, etc., that is necessary for carrying on the said business.
- 2) To submit all statements, returns, etc., to proper authorities as required by any law or rule in force and to verify the same by production of documents and papers.
- 3) To appoint, employ, dismiss or discharge any agent, broker, office, clerk, peon or any other person at such remuneration, commission, or salary, as the said attorney thinks fit.
- 4) To draw, accept, endorse, negotiate or pay any bill of exchange, hundi, promissory note, cheque, draft, railway receipt, bill of lading or other instrument which may be deemed necessary for carrying on the said business.
- 5) To open and operate bank accounts in any bank or banks in the name of the firm and/or to authorise any person or persons to operate the above bank account.
- 6) To borrow or raise loans from time to time, such sums of money, from any individuals, recognised financial institutions such as Banks, Andhra Pradesh State Financial Corporation, Industrial Development Corporation etc., and upon such terms as the said attorney may think fit upon the security of any of the properties of the firm ..... whether movable or immovable and for such purpose to execute such document or documents as may be necessary for securing the repayment of such loan or loans.
- 7) To negotiate, enter into any bargain, do all acts, things or execute any deeds or documents or other instruments or assurances as may be necessary for selling, mortgaging or purchasing any movable or immovable property, from any individual, recognised financial institutions such as Banks, Andhra Pradesh State Financial Corporation, Industrial Development Corporation etc., and upon such terms as the said attorney may thinks fit.
- 8) To institute contest, compound, submit to arbitration all suits proceedings, claims, demands etc., arising in course of or in relation to the aforesaid business.
- 9) To execute and sign in our name individually or collectively and on our behalf any document, letter or deed in respect of ..... to carry on the business effectively.

And I/We hereby agree to ratify and confirm all and whatsoever our said attorney shall lawfully do or cause to be done by virtue of this deed.

**TENDERER**

In witness whereof, I/We the said partners has hereto signed at ..... on this  
the .....

WITNESSES:-

Name of Partner

Signatures

1.

1.

1.

2.

2.

**SCHEDULE OF SUPPLEMENTARY INFORMATION – P**  
**(MANDATORY MODEL FORM)**

**CONTRACTOR'S REGISTRATION**

Copy of Contractor's Registration / Manufacturers Registration Certificate / Firm Registration required as per NIT shall be enclosed.

**SCHEDULE OF SUPPLEMENTARY INFORMATION – Q**  
**(MANDATORY MODEL FORM)**  
**AFFIDAVIT**

1. I/We \_\_\_\_\_ certify that the information furnished by me/us in the Schedules of Supplementary information F, J, K, L, M & P is true and agree that my / our tender shall be rejected if I/We am/are found to have misled or made false representation in the form of any of the Schedules of Supplementary information and/or statements submitted in proof of the eligibility and qualification requirements or if I/We have a record of poor performance such as absconding from work, works not properly completed as per contract, inordinate delays in completion, financial failure and/or has/have participated in previous tendering for the same work/s and had quoted unreasonable high tender premium. In addition I/We shall be blacklisted and the work be taken over invoking clauses of the General conditions of contract and Conditions of particular application.
2. I/We \_\_\_\_\_ agree to be disqualified for tendering further works in the HMWSSB if I/We \_\_\_\_\_ withdraw my/Our tender without a valid reason (to be decided by the Authority competent to accept the tender).
3. I/We \_\_\_\_\_ certify that no criminal cases are pending against me/us partners at the time of submitting the tender.
4. I/We \_\_\_\_\_ accept that my/our tender shall be rejected if any criminal cases are pending against me/us/partners of the firm at the time of submitting the tender.
5. I/We \_\_\_\_\_ agree that if the history of litigation, criminal cases pending against me/us/Partners furnished by me/us is false, I/We \_\_\_\_\_ will abide by the action taken by the HMWSSB / Andhra Pradesh HMWS&SB without approaching any court whatsoever for redress. However, I/We shall be given suitable opportunity to offer my/our explanation before action is taken against me / us.
6. I/We \_\_\_\_\_ certify that the following addenda issued by the HMWSSB have been received by me/us and incorporated in my /our tender.

1	dated
2	dated
3	dated

( Add if the addenda issued are more than 3)

**TENDERER**

7. Further I / We \_\_\_\_\_ certify that no near relatives are working in the HMWSSB.

8. I / We \_\_\_\_\_ also agree to undertake to keep accurate and system of accounts, records and furnish the same ( including that of sub-contractor) and agree to reimburse HMWSSB any excess amount claimed by me / us over and above my / our entitlement as per Clauses of the General Conditions of contract.

Dated this ..... day of ..... 20...

Signature ..... in the capacity of ..... duly  
authorised to sign the  
Tender for and on behalf of  
.....  
(Block Capitals)

Signature of Witness :

Name of Witness :

Address of Witness :

**SCHEDULE OF SUPPLEMENTARY INFORMATION**  
**SCHEDULE – R**

**FAIR WAGES CLAUSE AS PER G.O.Ms.No.1763/P.W.D.DATED:22-3-1963**

- A) The Contractor shall pay not less than fair wages notified by the HMWS&SB from time to time to the labour engaged by him on the work. No claim will be entertained on account of any revision of minimum wages which may be ordered by the HMWS&SB.
- B) “Fair Wages” means wages whether for time or place work, notified by the HMWS&SB from time to time in the area in which the work is situated.
- C) The Contractor shall notwithstanding the revisions of any Contract to the contrary cause to be paid to the labour engaged by the Sub-Contractor in connection with the said work as if the labourers had been directly employed by him.
- D) In respect of labour directly or indirectly, employed in the works for the purpose of the Contractor’s part of the agreement the Contractor shall comply with the rules and regulations on the maintenance of suitable records prescribed for this purpose from time to time by the HMWS&SB. He shall maintain his accounts and vouchers on the payment of wages to the labour at the satisfaction of the General Manager (Engg).
- E) The General Manager (Engg) shall have the right to call for such records as required to satisfy himself on the payment of fair wages to the labour and shall have the right to deduct from the Contract a suitable amount for making good the loss suffered by the worker or workers by reasons of the “Fair Wages” clause to workers.
- F) The Contractor shall be primarily liable for all payments to be made and for the observance of the regulations framed by the HMWS&SB from time to time without prejudice to his right to claim indemnity from his Sub-Contractors.
- G) Any violation of the conditions above shall be deemed to be a breach of his Contract.
- H) The Contractor will at all times duly observe the provisions of Employment of children Act XXVI of 1938 and any re-enactment or modification of the same and will not employ or permit any person to do any work for the purpose of under the provision of this agreement in contravention of the provisions of the said Act. The Contractor hereby agrees to indemnify the HMWS&SB against all claims, penalties which may be referred by the HMWS&SB, or any person employed by the Labour Department, Govt of AP by reason of any default on the part of the contractor in observance of the provisions of Employment of Children Act XXXI of 1938 or any re-enactment or modifications of the same.



SCHEDULE OF SUPPLEMENTARY INFORMATION  
**SCHEDULE – S**

QUARTERLY REPORT OF THE LABOUR EMPLOYED FOR THE CONTRACT

Return for the quarter ending :

1. Name and Location of the Work :

2. Name of the Contractor(s) :

3. Employed on HMWS&SB Works / :  
HMWSSB Works

4. Address Place District State

1.0 Employment to Earning :

- a) Men \_\_\_\_\_ nos.
- b) Women \_\_\_\_\_ nos.

6. Total No. of workers employed :  
during the quarter.

7. No. of persons employed by the :  
Contractor, on the above work.

8. Total No. of man hours worked:  
during the quarter

9. Total (Basic) Wages paid (in Rs.) :

10. Total Net Earnings (in Rs.) :

11. No. of working hours during the quarter :

- a) On Normal Day \_\_\_\_\_ nos
- b) On Saturday \_\_\_\_\_ nos

12 a) No. of man-hours of over-time :  
worked during the quarter.

b) Over-time payment if any :  
(in Rs.) during the quarter

c) Total No. of working days :  
during the quarter.

d) Length of the Normal Wages :  
periods.

e) Accidents :

**TENDERER**

Number of accidents			Circumstances under
Fatal	Permanent disablement	Temporary disablement	which accident occurred

13. Total no. of accidents during the quarter :

14. Compensation paid if any (in Rs.) :

15. Volume and value of construction :  
done during the quarter.

16. a) Total cost of materials (approx.) :

b) Total payment of workers :

c) Overhead Charges (approx.) :

d) Total man hours worked :

e) Maternity benefits

i) No. of female workers :  
who have been given  
maternity benefit.

ii) Amount paid. :

## SCHEDULE – 'U'

### MANUFACTURERS AUTHORIZATION FORM (Mandatory Model form)

No. \_\_\_\_\_ dated \_\_\_\_\_

(For Water Meters conforming to ISO : 4064, Class 'B' standard or IS 779/IS2373, with  
ISI/EEC/MID certification mark)

To:  
The Chief General Manager (E),  
HMWSSB,

Dear Sir,

We \_\_\_\_\_ who are established and reputable **Manufacturers of Water Meters conforming to ISO : 4064, Class 'B' standard or IS 779/IS2373, which have ISI/EEC/MID certification mark** having factories at \_\_\_\_\_ and \_\_\_\_\_ do hereby authorize M/s. \_\_\_\_\_ (Name and address to bid, negotiate and conclude the contract with you against Tender No. \_\_\_\_\_ for the above goods manufactured by us. We also under take to supply the above materials as per time schedule given by the purchaser.

We hereby extend our full guarantee and warranty as noted below for the goods for supply against this invitation for bid by the above firm.

#### WARRANTY:

1. We warrant that the goods supplied under this contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. We further warrants that the goods supplied under this contract shall have no defect arising from design, materials or workmanship (except insofar as the design or material is required by the purchaser's specifications) or from any act or omission of that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
2. This warranty shall remain valid till completion of the project contract Period.
3. The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
4. Upon receipt of such notice, the supplier shall, with all reasonable speed, repair or replace the defective goods or parts thereof, without cost to the purchaser other than, where applicable, the cost of inland delivery of the repaired or replaced goods or parts from the port of entry to the final destination.

Yours faithfully,

Name :  
for and on behalf of M/s.  
(Name of manufacturers)

**Note:** This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

TENDERER

## Abbreviations

<b>AMR</b>	Automated Meter Reading.
<b>APPX.</b>	Approximate.
<b>AVG</b>	Average.
<b>BOOT</b>	Build Own Operate Transfer
<b>CGM</b>	Chief General Manager
<b>CPHEEO</b>	Central Public Health Engineering & Environmental Organization.
<b>DPR</b>	Detailed Project Report.
<b>EOI</b>	Expression of Interest.
<b>GL</b>	Ground Level.
<b>IWA</b>	International Water Association.
<b>LPS</b>	Litre Per Second.
<b>MBR</b>	Master Balancing Reservoir.
<b>HMWSSB</b>	Hyderabad Metropolitan Water Supply and Sewerage Board
<b>MSL</b>	Mean Sea Level.
<b>MLD</b>	Million Litres Per Day.
<b>MM<sup>3</sup></b>	Million Cubic Meters.
<b>ML</b>	Million Litres.
<b>NRW</b>	Non Revenue Water.
<b>RCC</b>	Reinforced Cement Concrete.
<b>RFP</b>	Request for Proposal.
<b>TOR</b>	Terms of Reference.
<b>UFW</b>	Un-accounted for Water.
<b>WTP</b>	Water Treatment Plant.
<b>24 X 7</b>	Twenty Four Hours & Seven Days.
<b>INR</b>	Indian National Rupee
<b>CAM</b>	Comprehensive annual Maintenance
<b>DOT</b>	Department of Telecommunication
<b>GOI</b>	Government of India
<b>RCC</b>	Reinforced cement concrete
<b>CRS</b>	Coursed Rubble stone
<b>CM</b>	Cement mortar

## Conversions Commonly Used in Water Audit

<b>1 m<sup>3</sup></b>	=	1000 ltrs.
<b>1 unit</b>	=	1000 ltrs.
<b>1 MI</b>	=	1000 units / 1000 m <sup>3</sup>
<b>1 mm<sup>3</sup>/yr.</b>	=	2.74 Mld.
<b>1 mm<sup>3</sup></b>	=	1000 MI.



**HYDERABAD METROPOLITAN WATER SUPPLY & SEWAGE BOARD**

**e'Tender Notice No:72(3<sup>rd</sup> call) /C.G.M.(E)/R.C/AMR-SWC/2015-16 Dt:15-03-2016**

**Tender Document**

**for**

**Name of the Work:** Supply, installation, testing, commissioning and five years on site Comprehensive annual Maintenance(including warranty period) of clear water meters size ranging from 25mm dia. to 300mm dia. conforming to ISO: 4064, Class'B' standard with latest amendments or IS 779/IS2373 with latest amendments and have ISI/EEC certification mark with Automatic Meter Reading (AMR) with GSM technology to read remote meter reading over GSM network with GPRS communication technology seamlessly sending data directly to HMWSSB's existing AMR meters Server **SIDE SOFTWARE MODULE** from AMR meter (Or) **to the vendor server duly integrating with HMWSSB Billing System** for bulk consumers & others under HMWSSB jurisdiction.

**VOLUME-II**

**COMMERCIAL BID**

**O/o. Chief General Manager (Engg),  
Revenue Circle, HMWS&SB,  
Khairatabad,Hyderabad -04.**

## FINANCIAL BID (Volume-II)

**AUTOMATIC WATER METERS FOR 979 NOS. CONNECTIONS IN HMWS&SB JURISDICTION THROUGH GSM TECHNOLOGY ON CAPITAL COST AND ON SITE COMPREHENSIVE ANNUAL MAINTENANCE COST BASIS.**

<b>S.No</b>	<b>Item</b>	<b>Total Estimated Cost for Five Years (INR)</b>	<b>Percentage quoted</b> (Excess or Less or zero) Maximum of 5.00% limited to excess side.
<b>(A)</b>	<b>(B)</b>		
1	Cost towards Capital Cost of 979 AMR meters, chambers, strainers(wherever necessary) including Cost for onsite comprehensive annual maintenance for five years after commissioning of the project including generation of hourly basis and monthly consumption web based reports for all metered CANS duly integrated with the existing AMR meters Server side Software Module from AMR meter (or) to the vendor server duly integrating with HMWSSB Billing system, construction of Meter & Stainer chambers as per specifications etc., complete as per NIT.	49030000=00	

**Note:-**

1. The bidder shall quote uniform rate for entire five years contract period.
2. The bidder shall quote Cost towards recovery of Capital Cost of AMR meters, strainers & cost for onsite comprehensive annual maintenance for five years including monthly consumption reports for all metered CANS, construction of meter and strainer chambers as per specifications with lock & key arrangements etc., including all taxes & duties etc complete.
3. The rate quoted for L.S. tender on percentage basis is final and the bidder shall be eligible for quoted proportionate percentage rate to each size of AMR meter or nearing rounding off to rupee only to entire quantity.

**Schedule – ‘A’ (Bill of Quantities)**

SI. No.	Item	Required Quantity	Unit	Cost for each AMR meter system for five years including Capital Cost and on site comprehensive annual maintenance cost for five years (INR)		Total Cost for five years for total qty. (INR)
				In figures	In words	
<b>A)</b>	<b>AMR meter with GSM Technology</b>	<b>Nos.</b>				
	Cost towards Capital Cost of AMR meters, strainers & Cost for onsite comprehensive annual maintenance for five years including generation of monthly consumption reports for all metered CANs, duly integrated with the existing AMR meters Server side Software Module from AMR meter (or) to the vendor server duly integrating with HMWSSB Billing system, construction of Meter& Strainer chambers as per specifications wherever necessary etc., including all taxes & duties etc complete.					
(1)	25mm dia	725	Each			
(2)	40mm dia	85	Each			
(3)	50mm dia	94	Each			
(4)	75mm dia .	16	Each			
(5)	100mm dia	32	Each			
(6)	150mm dia	11	Each			
(7)	200mm dia	9	Each			
(8)	250mm dia	5	Each			
(9)	300mm dia	2	Each			
<b>Total Cost</b>						

Total Cost in words: Rupees \_\_\_\_\_

**BIDDER**

**Chief General Manager (Engg.)  
Revenue Circle**