DELHI JAL BOARD

NAME OF WORK–Expression of interest (EOI) from the Manufacturers/ Fabricators/ Authorized Suppliers/ Dealers of Smart Water Meters to meet the requirements of DJB.

Revenue Department

DELHI JAL BOARD

Varunalaya, Jhandewalan,

Karol Bagh

New Delhi–110005

DELHIJALBOARD
OFFICE OF THE DIRECTOR (REVENUE)
VARUNALAYA, PHASE-II, JHANDEWALAN, NEW DELHI- 110005

EXPRESSION OF INTEREST (EOI)

Delhi Jal Board

Delhi Jal Board (DJB) is a statutory body, which has been established to discharge the functions of water supply, sewerage and sewage disposal and drainage within National Capital Territory of Delhi and for matters connected therewith. The Board is mandated to ensure quality water distribution in Delhi and it is expected to ensure accurate billing of such supply, aimed at near zero billing related consumer grievances.

Present System of Meter Reading

The existing water meters are mechanical meters and they are either owned by consumers or by DJB. There are some un-metered connections as well. Presently, readings of these meters are taken manually by meter readers who visit the consumers' premises physically once every two months and take a photograph of the meter readings on a hand-held device and thereafter, generate a bill which is handed over to the consumer concerned. Simultaneously, the reading is transmitted to the central server along with an image of the reading for centralized processing. The consumers are accordingly, billed bimonthly. Manual meter reading has a plethora of problems associated with it and all efforts to change the meter readers and bring about accuracy, efficiency and regularity in billing have not succeeded so far.

The break-up of number of connections in each type is given under:-

Type of connection	No. of connections
Domestic	27.5 lakhs
Bulk	4,300
Commercial	89,000

Further, the consumer base of DJB is expanding by about one lakh additional connections every year.

Smart water meter solutions:

Smart Water Metering is a modern and advanced technology that helps in measuring and managing water consumption accurately and thus offers various

benefits such as improved billing accuracy, leak detection, and reduced water wastage.

Smart water meters are devices that measure and communicate water usage from consumer to provider to facilitate water management and proper billing. These meters are equipped with an electronic computing unit, or ECU, that facilitates communication between the meter and the supplier. Unlike mechanical water meters, smart meters track water usage through technology such as ultrasonic or electromagnetic readings that provide more accurate measurements. Although these more advanced water meters can be manufactured with traditionally used metals like brass or copper, many OEMs are relying on specialty polymers for water management systems to replace metals and promote lightweighting and increased durability.

Generally, smart water meters require an infrastructure for them to be implemented successfully. This comes in the form of AMR (Automated Meter Reading) and AMI (Advanced Metering Infrastructure). AMR refers to the employment of a mobile receiver that a person can be equipped with, to collect the meter data by either a walk-by or drive-by. The mobile receiver comes in the form of a dedicated device, which can be linked to an application for user access on laptops and smartphones, allowing users to easily map out their water meter readings as well as perform basic analysis using accompanying proprietary software of their water meter. AMI would typically involve a fixed network rather than a mobile reader, and comes with the added benefit of having a constant monitored overview of an area that the AMI is deployed in. The infrastructure can either make use of cellular networks or any other mode of data communication that can allow information to be sent directly and securely through these networks to a privately hosted server or a cloud platform by the water meter's manufacturers.

Power to the people

Upgrading to a smart water metering system will bring a slew of benefits to the end user. Smart water meters won't just help DJB understand customer demand, they would help citizens monitor their consumption patterns, too. The Board intends to link the smart unmetered connections water meters up to an online customer portal that shows users how much water they use daily. They can then compare this to their historical water consumption trends, and how much water other similar households are using. They can even set water-saving goals and receive high usage notifications. The portal will also alert them to potential leaks, which customers can quickly fix. All this will allow citizens to be more aware of their water usage and be empowered to make adjustments in their consumption habits to save water.

Requirements of DJB

Since water meters play a vital role in revenue generation of the DJB, it is absolutely necessary to review the entire metering aspects & revamp it in view of the latest technological advancements in metering. It is hoped and believed that, with smart water meters, DJB will eventually be able to resolve these problems by doing away

with the time-consuming and labor-intensive manual meter reading procedure. Digital meter readings can be done remotely, which will facilitate DJB in accurate and monthly billing of its consumers. The smart water meters would automatically collect data on water usage and send all the data back to DJB's central server on a daily basis, which can help the Board understand water demand patterns at different times of day across various regions. Adoption of Smart Metering will not only help DJB in reduction of non-revenue water and improvement in collection efficiency, but also in real time water auditing, improvement in billing reliability and reduction in consumer complaints.

Initially, it is proposed to adopt smart metering in all commercial establishments. Based on the experience and the utility, a decision would be taken with respect to other segments subsequently.

Call for Expression of Interest

Accordingly, the Board intends to call for Expression of Interest (EOI) from the interested reputed agencies (Manufacturers/ Fabricators/ Authorised- suppliers/ Dealers) for short listing their makes/brands/models, and for supply and installation of smart water meters of various sizes to the consumer connections in all the areas served by DJB.

For selection of makes / brands / manufacturer/models, the demonstration / testing will be carried out and after conducting such demonstration, the DJB may suggest certain modifications. The meter manufacturer shall implement / incorporate all the modifications & suggestions as suggested by the DJB.

Pre-Bid Industry Consultation

A pre-bid Industry Consultation will be held in the Conference Hall, Varunalaya Ph-II, Jhandewalan Delhi. Details regarding the time and date of the industry consultation will be communicated separately to the prospective bidders expressing their interest on or before the last date of submission of proposals.

Details Sought from the Bidders

The smart water meter manufacturer etc. are initially required to submit a brief proposal as per format enclosed, mentioning the technology, methodology and other relevant details in respect of proposed solution being offered by them for installation of smart water meters for short listing them for further detailed examination / consultation.

FORMAT for submission of Proposed Smart Meter Solution for implementation in DJB

Interested applicants shall submit their proposal in the attached proforma only. Separate sheet may be attached in case space provide in the format is found to be insufficient.

DISCLAIMER

The proposals submitted in response to this EoI for such additional makes / brand / manufacturer, does not guarantee any business to any water meter manufacturer / firm / institution, by DJB. The approval accorded will be treated as additional facility for the selection of such make / brand / manufacturer, model for the appointed contractors or public for supply and installation of such smart water meter for future after the competitive bid is finalised.

SUBMISSION OF EOI:-

The EOI as per given format along with scanned copy of self attested documents, shall be submitted at email address: dir-rev.djb@nic.in, jdrhq.djb@nic.inon or before 29.02.2024, 18.00 hours followed by offline submission in close envelope on or before 01.03.2024, 18.00 hours in the office of Joint Director (B&M), Revenue Department, Delhi Jal Board, 5th Floor, Varunalaya Ph-II, Karol Bagh, New Delhi-110005.

Offer received without complying with above instruction shall be liable for rejection.

The offers shall be received on stipulated date & time. After scrutinizing the same, the offers confirming to the aforesaid criteria shall be treated as 'Responsive' offers & it shall be communicated to them, for further processing & giving demonstration / testing, etc, as mentioned in EOI.

FORM FOR SUBMISSION OF EOI
(on the letter head of the Applicant)

To,

The Joint Director (Revenue) B&M,
Delhi Jal Board HQ,
Revenue Department,
Varunalaya Phase-II, 5th Floor,
Karol Bagh,
New Delhi-110005

Dear Sir,

We, the undersigned, offer to submit our Expression of Interest for Installation and Commissioning of Smart Water Meters in the area under the jurisdiction of Delhi Jal Board. We are hereby submitting our Proposal which includes technical specifications as requested.

We hereby declare that all the information and statements made in this proposal are true and accept that any misinterpretation contained in it lead to our disqualification.

We understand you are not bound to accept any Proposal you receive and this EOI is not liable for any commissioning of work.

Enclosures: ____page numbers, all the enclosures are duly signed.

Yours sincerely,

Authorized Signature (*in full and initials):*……..
Name and Title of Signatory:…….
Name of Organization:……...
Address:……..
Email Id:…….
Contact Number: ……

Proforma to be submitted by interested Manufacturers/Fabricators/Authorized Dealers/Suppliers

S.No.	Specifications sought	Response
1.	Name of the Company/Firm	
2.	Enclose registration certificate (firm registration/contractor registration).	
3.	Copy of GST Registration certificate.	
4.	Name and Address of the Authorized dealers/ Person in Delhi along with all communication details.	
5.	Company/Firm Profile including annual turnover for the last three years.	
6.	Undertaking that the firm is not blacklisted by any State/Central Govt./Board or Public Sector Undertaking at the time of submission of EOI.	
7.	Annual capacity of the firm for providing smart meters and installing the same.	
8.	Different dia of smart meters available along with tentative cost of the meter and installation (separately).	
9.	Type of battery used and life span	
10.	Technology used in the model(s) of smart meter(s) including make, model and other specifications.	
11.	Details of materials used for various	

	parts of the meter which must meet the specifications for the material of construction of the individual parts of the meters as per ISO standards.	
12.	Chlorine resistance level (parts per million of chlorine residual in water which the material used in the meter can sustain) along with test certificate.	
13.	Certification/Undertaking that the smart meter confirms to industry standards with up to date amendments and certifications and has been duly tested and passed as per the relevant standards and specifications for performance test supported with test certificate.	
14.	Enclose environment protection certificate, accuracy class of the water meter along with sizes, for which the manufacturer seeks the approval. ISI/ EEC / MID / OIML pattern approval certificates along with validity extension copies to be attached. If the EEC approval certificates are in foreign language other than English, translated version of the same in English to be submitted by the applicant.	
15.	Health certificates that the material used is safe for human use & does not affect human health.	
16.	Variation in weight of the meter(s) in respect of each model of the smart meter.	
17.	Claimed accuracy of reading (in %)	

18.	Technology used for automated reading? Whether IoT based or otherwise?	
19.	Communication technology to be used for data transmission from smart meter to the central server?	
20.	Whether the company has its own billing solution integrated with the smart meters? Kindly provide details of the same.	
21.	Any other AMR/AMI/Technological Information that the Company/Firm may like to communicate?	
22.	Whether customer service including consumer meter repair centre and testing facilities is available in Delhi? Provide details.	
23.	Experience in providing and installing smart meters in the past five years. The experience certificate for similar type of work carried out under any local/government bodies shall be attached. If the agency is not a manufacturer it shall produce memorandum of understanding from manufacturers who have experience in manufacture and supply of above specified water meters.	

PS: Kindly attach separate annexures for each point if the space provided above is not sufficient.