Addendum No. 2 to IFB 25-20

CITY OF SOMERVILLE, MASSACHUSETTS
Department of Procurement and Contracting Services
KATJANA BALLANTYNE
MAYOR

To: All Parties on Record with the City of Somerville as Holding IFB 25-20 Water Meter Replacement Meters and Parts

From: Sonia Castro

Date: 10/21/2024

Re: **Questions and Answers**

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Please acknowledge receipt of this Addendum by signing below and including this form in your bid package. Failure to do so may subject the proposer to disqualification.

NAME OF COMPANY / INDIVIDUAL: ----------

ADDRESS: ----------

CITY/STATE/ZIP: _____

ELEPHONE/FAX/EMAIL: ----------

SIGNATURE OF AUTHORIZED INDIVIDUAL: ----------

ACKNOWLEDGEMENT OF ADDENDA:

Addendum #1 _____ **#2** _____ **#3**_____ **#4** _____

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Dear Bid Holders,

This addendum (#2) was issued to provide answers to questions we received.

Q1. I know there's a few requirements about the water meters you folks are looking for, such as being comparable to a single-jet cold water meter with cellular based registers with Advanced metering analytics that is compatible with WaterScope Software; do you folks have any particular meter manufacturer/brands in mind? Or would you want to go with a newer version of your existing meters?

A1. To ensure standardization and compatibility with the existing Automated Meter Reading System, furnished meters must be comparable to the Metron-Farnier Single Jet Cold Water Meters with cellular Advanced Metering Analytics. The meters must include cellular registers and be compatible with WaterScope software.

Q2. Is it the City of Somerville's intent to procure single-jet meters equipped with cellular-enabled registers to offer direct communication through existing cellular networks to provide the City with necessary meter reads and interval data capable of communicating through different Cat-M1 LTE carriers to minimize the possibility of "no service" cellular areas and able to provide one (1) minute data resolutions?

A2. Yes

Q3. Is it the City of Somerville's intent to have a water metering system that utilizes an existing cellular network to backhaul data directly from the meter to cloud-based storage, thereby requiring no additional infrastructure and no data collectors?

A3. Yes

Q4. Is theCity of Somerville intent on having a water metering system in which all data must be channeled through a VPN (virtual private network) within the cellular network for data security?

A4. Yes

Q5. All new meter registers include an 8-digit electronic register with an embedded cell modem for communications.

A5. Yes

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Q6. Must electronic registers be able to store the most recent 32,000 points of data usage in one (1) minute intervals, continuously without effect on the battery life, with resolution down to one magnetic turn of the measuring element of the meter?

A6. Yes

Q7. Must the registers include on-board data storage for interval consumption data at a minimum of 111 days that can be accessed via a field tablet for additional customer service?

A7. Yes

Q8. Must the registers communicate with the cellular network daily to upload reading data and usage data, and must meter readings be synchronized to within 1 second of the atomic clock and time stamped at midnight for all daily meter status and meter reading transmissions?

A8. Yes

Q9. During daily communications, must the register also perform any required two-way functions, such as backfilling no fewer than nine days of missing interval data, accepting reconfiguration commands, and allowing periodic firmware updates?

A9. Yes

Q10. Must the registers have no moving parts, induce zero drag on the measuring element, and improve low flow accuracy?

A10. Yes

Q11. Must the register manufacturer certify that the meter's calibration will not be materially changed with the new register installed?

A11. Yes

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Q12. The register must be capable of sending high-usage real-time, leak, or other custom alerts.

A12. Yes

Q13. Does the City require that Reading and Interval Data be stored in a cloud-based database administered by the manufacturer with security measures equal to or greater than Microsoft Azure?

A13. Yes

Q14. Does the City require that Cloud storage shall store usage data for a period of at least one (2) years?

A14. Yes

Q15. Must the proposed solution provide web-based, user-friendly software for us by utility personnel?

A15. Yes

Q16. Must the proposed solution allow the City to grant customers web-based access to view their usage data at no additional cost to the utility?

A16. Yes

Q17. Does the City require that the registers be a solid-state liquid-filled crystal display (LCD) or a solid-state LCD with built-in cellular technology for reading data and uploading it to a web-based cloud environment?

A17. Yes

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Q18. Does the City require that all data transmitted shall be the property of the City for a minimum of ten years?

A18. Yes

Q19. Does the City require that cellular network charges, SaaS (Software as a Service) and NAAS (Network as a Service) must be included in the pricing to provide ten years of service?

A19. Yes

Q20. Does the City require that cellular network connectivity be guaranteed for ten years without any device upgrade costs?

A20. Yes

Q21. Does the City require that the registers be a solid-state electronic LCD type?

A21. Yes

Q22. Does the City require that the registers be magnetically driven, with no intermediate gearing allowed?

A22. Yes

Q23. Does the City require that the registers have onboard data logging with programmable intervals for either 1 minute or 5 minutes and onboard memory of at least 65,000 data points?

A23. Yes

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Q24. Does the City require the metering solution to provide same-day alerts to the City as well utility customers, if desired, of costly or dangerous conditions including, but not limited to:

I. Continuous Leak - Constant use of Water

II. Threshold Leak - Constant use of water above defined flow rate in gpm

III. Intermittent Leak - High Flow Rate, Short duration (< 1 hr) leaks consistent with leaking toilet valves

IV. Unauthorized Use - Metered use on services that should not have use

V. Threshold Backflow - Reverse flow above a defined volume that can be hazardous

VI. Zero Use – Triggered on a city-selected period of no use. Useful for tamper detection and meter issues

VII. Irrigation Violation – Alert triggered on probable irrigation event occurring at the wrong time of day or on a prohibited day

VIII. Potential Freeze Warning - Alter when water Temperature drops below 36 degrees.

IX. Low Battery Alert - notification sent 6 months before battery end-of-life.

A24. Yes

Q25. Must the measuring chamber impeller in the single jet meter be of a hardened polymer and resistant to abrasion or breakage?

A25. Yes

Q26. Must all single-jet water meters utilize only one (1) measuring element, which shall be impeller-style, to achieve the required performance?

A26. Yes

Q27. Must 100% of water flow be directly measured by the single-jet element to achieve low flow accuracy and high performance?

A27. Yes

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Q**28. Does the City require that the single jet water meters have the following minimum acceptable accuracy range of the water meters specified:**

Meter Size	Low Flow Accuracy (95%-101%)	Normal Operating Range (98.5%-101%)
5/8" x 3/4"	0.1 gpm	0.25-30 gpm
3/4" x 3/4"	0.125 gpm	0.125 to 30 gpm
1"	0.25 gpm	0.25-70 gpm
1.5"	0.25 gpm	0.25-105 gpm
2"	0.25 gpm	0.25 - 175 gpm
3"	0.25 gpm	0.25 - 350 gpm
4"	0.25 gpm	.25 - 500 gpm
6"	.75 gpm	.75 - 1000 gpm

A28. Yes

Q29. **Will this contract include installation.**

A29. No. Installation is covered under a different contract