

APPENDIX D SELECTION CRITERIA

The Town of Manchester-by-the-Sea (MBTS or Town) intends to use the procedures governing the selection of proposals with additional criteria for any municipality or local public agency as detailed in Uniform Procurement Act, M.G.L. c. 30B, §6.

Minimum Evaluation Criteria:

A set of minimum evaluation criteria has been established for the Town to ensure that only qualified vendors capable of meeting essential Town requirements are considered for the proposing process. These are “pass-fail” criteria. Vendors which do not meet all criteria will be disqualified and will not proceed to the subsequent review stages. Proposers shall initial the appropriate entry for each criterion, and include this sheet in the technical proposal submittal.

Name of Proposer: **The Stiles Company, Inc.**

1. The Proposer offers an AMI system. Yes ☒ No _____
2. The proposed customer portal functions on a web browser. Yes ☒ No _____

The EyeOnWater Customer Portal comes standard with our proposed AMI solution and is available through a web browser or smartphone application.

3. The AMI system proposed in this project is compatible with CUSI billing software.
Yes ☒ No _____

The Beacon AMA Software is 100% compatible with CUSI billing software and there are successful interfaces already completed in dozens of other communities.

4. The AMI system proposed in this project will achieve 100% full Town coverage.
Yes ☒ No _____

The Cellular Coverage Analysis determined that there is 100% coverage available for the full town and indoor installation of the endpoint is supported.

5. The AMI equipment manufacturer has at least five (5) years of experience in the manufacture and supply of AMI systems for the water industry in the United States.
Yes ☒ No _____

Badger Meter was founded in Milwaukee, WI and has been manufacturing water meters since 1905 in North America. Badger came out with its first AMR/AMI system in the 1990s and introduced the Beacon Cellular AMI solution in 2014.

6. The AMI system proposed will have a secure and safe method of outputting meter data without compromising the private information of MBTS residents. Yes ✓
No _____

Data and communication security is of the utmost importance to Badger Meter. All endpoints securely transmit metering data in an encrypted format and our proposed solution's Network utilizes Private Custom APN with Private IPs for advanced security with **NO DIRECT ACCESS TO PUBLIC INTERNET**. In addition, the Beacon solution is *ISO 27001 Certified and SOC 2 Compliant* - Addresses Trust Service Principles of security, availability, processing integrity, confidentiality, and privacy.

7. The AMI system proposed will be in FCC Compliance, and Proposer is able to certify that the operations of their system will not adversely affect the health or well-being of individuals, including any potential interference with brainwave activity or other biological processes. Yes ✓ No _____

The ORION Cellular endpoint utilizes as its primary communication, licensed frequencies that are specifically set aside for cellular communications. Unlike many AMI solutions that use shared frequencies and bandwidth, ORION Cellular endpoints utilize licensed frequencies to avoid interference from unauthorized users. For its mobile back-up message, the ORION Cellular endpoint communicates on the FCC-regulated 902-928 MHz frequency. ORION Cellular endpoints comply with Part 15, Part 22, Part 24, and Part 27 of FCC Rules.

The radio frequency signals broadcast from the ORION Cellular endpoint are well below the levels most people come into contact with on a typical day in their home. Devices such as television sets, wireless phones, and cell phones all utilize radio frequency technology that provides much greater contact to radio frequency signals. The endpoint operates like a cell phone and under normal operation will awaken a few times per day (four transmissions per day is expected) to communicate data. Under typical operation, the endpoint transmits reading data for seconds per day, meaning that the endpoint transmits as little energy as a brief cell phone call.

We have numerous whitepapers and documents to help address any concerns the public may have with RF activity.

8. The proposed meter will have a guarantee to meet the latest revision of AWWA Standard C-700, C702, or AWWA Standard C-715 for Cold Water Meters and a meter accuracy requirement for at least 10 years.

Yes ☒ No ☐

The proposed Badger Meter ultrasonic E-Series water meters are field-proven, reliable meters that were introduced in North America in 2009. The meters meet or exceed the AWWA C715-18 (for ultrasonic meters).

In addition, the accuracy for sizes 5/8" – 1" are warrantied/guaranteed for a full 20 years.

Comparative Evaluation Criteria:

The Town shall apply the following criteria and points in the evaluation of the proposals.

“Highly Advantageous” (10 points x scaling factor) = response excels on the specific criterion,

“Advantageous” (6 points x scaling factor) = response meets evaluation standard for the criterion,

“Not Advantageous” (2 points x scaling factor) = response does not fully meet the evaluation criterion or leaves a question or issue not fully addressed, or

“Unacceptable” (0 points) = response does not address the elements of this criterion.

In addition, references beyond those included in the IFP response may be checked. In the case of two or more proposals having an equivalent score, respondents may be asked to provide additional information. The Town may ask all respondents to present the proposed products during the selection process and feedback on the presentation will be included in the determination of scores.

Name of Proposer: *Stiles Company, Inc.*

| No. | Criteria: <i>Description</i> | Scaling Factor | Max Points |
|-----|--|----------------|------------|
| 1 | Customer Portal: <i>Evaluates the customer portals ease of use</i> | 2.5 | 25 |

| | | | |
|-------------|---|-----|-----|
| 2 | Meter Longevity: <i>Evaluates the meter's battery life and warranty</i> | 1.5 | 15 |
| 3 | MIU Longevity: <i>Evaluates the meter's MIU battery life and warranty</i> | 1 | 10 |
| 4 | Short Term Cost: <i>Evaluate the proposals capital cost</i> | 2 | 20 |
| 5 | Long Term Cost: <i>Evaluates the proposals operational costs</i> | 1 | 10 |
| 6 | Meter Contents: <i>Evaluates the MIU's data transmission intervals</i> | 1 | 10 |
| 7 | Additional Features | 1 | 10 |
| Total Score | | | 100 |

1: Customer Portal (2.5X weighted, 25 points max)

Proposer's product provides a customer portal that has clear and logical applications for customer usage and offers extensive information to the user such as daily usage records and reports and ability to integrate with the Town's current billing software. Documents required for validity of the products customer portal are defined in **Appendix A** and **Appendix C** of this IFP.

The proposed Beacon AMA Solution comes standard with a built-in Customer Portal. The customer portal is called EyeOnWater and it has been available since 2014.

- The customer portal is available through a secure website or a smartphone application (supported by iOS and Androids).
- The portal comes as a standard offering and it is developed, supported, and owned by Badger Meter – it is not a third-party offering.
- Notifications – the portal provides a notification system for the utility to broadcast messages to their customers through the portal (similar to reverse 911). Notifications can be sent to all customers or targeted to specific customers.
- The portal provides a very easy and intuitive way for end users to monitor their water usage data. The data can be viewed down to every 15-minute usage, hourly, daily, weekly, monthly or annually.
- The portal allows end users to set-up their own custom leak alerts and continuous flow notifications.

- The EyeOnWater Customer Portal can be set-up with a “Pay My Bill” button and it will automatically bring them to the town’s existing online bill payment portal.
- Stiles Co will provide customer portal support to the town’s end users
- Stiles Co has a lot of experience with the customer portal and will assist the town in promoting the portal

2: Water Meter Longevity (1.5X weighted, 15 points max)

Proposer’s product has a full replacement warranty for the battery, and a full replacement warranty for manufacturing defects related to the metering device used in measuring the volume of water.

(Manufacturing defects may include is not limited to Electronics, Transducers and Register Components, and Accuracy.) The warranty shall include all diameters of meters installed. Proposer shall include a copy of their proposed warranty to verify the validity of the products replacement warranty as defined in **Appendix A** and **Appendix C** of this IFP.

Badger Meter was the first meter manufacturer to offer residential ultrasonic meters in North America back in 2009 and today there are millions of ultrasonic E-Series Meters in the field with a failure rate well below less than a half of a percent. In addition, there are well over 50 utilities in New England that utilize the ultrasonic meters in some capacity and they have a proven track record being installed in the Northeast climate and conditions for almost 15 years.

Warranty: Badger Meter Ultrasonic E-Series Meter (5/8" – 1") -

- Lead-Free Housings: Twenty (20) years and six (6) months after shipment from Badger Meter
- Accuracy: Twenty (20) years from the date of shipment
- Electronics (Battery, etc): Twenty (20) years and six (6) months, prorated (10-full/10-prorated)

3: MIU Longevity (1.0X weighted, 10 points max)

Proposer’s product (endpoints and/or collectors) has a full replacement warranty for the battery, and a full replacement warranty for manufacturing defects for the endpoints and/or collectors and appurtenances. AMI meters with built-in MIU will receive credit for this section based on the meters warranty offerings. Proposer shall include a copy of their proposed warranty to verify the validity of the products replacement warranty as defined in **Appendix A** and **Appendix C** of this IFP.

Badger Meter introduced their family of ORION radios in 2002 and they have close to 30% of the AMR/AMI market share in the US. The Orion Endpoint is extremely reliable and boasts a **less than 0.5% failure rate over its 20-year life.**

Badger Meter warrants ORION Cellular endpoints, including battery, to be free from defects in material and workmanship for a period of 20 years and six months after shipment. Badger Meter will replace non-performing endpoints at no cost during the first 10 years of the warranty period, and at a prorated price during the remainder of the warranty period. As a standard, the endpoint automatically broadcasts 15-minute interval data on a regular, daily schedule (up to four times per day), along with any diagnostic data and alarm conditions, to BEACON AMA via the cellular network. With over 25 years' experience designing, testing, and manufacturing systems to withstand the harsh water environment, Badger Meter customers can rest assured that our proven manufacturing processes provide them with a product to last the life of the BEACON AMA system.

The endpoints warranty also covers the Guarantee of the Network for 20-years (10-full/10-prorated).

An ORION Cellular endpoint and its battery support the 20-year warranty of the device when properly installed. The average life of an ORION Cellular endpoint is estimated to be 20.7 years with a standard deviation of 0.9 years (18.9 to 22.5 years.)

4: Short Term Cost (2X weighted, 20 points max)

Proposer's product comparatively has the lowest purchasing costs and includes clearly defined unit costs for the AMI meters, MIU's, related hardware or required equipment, and implementation fees. Points in this section shall be based on the total value from the Form for General Proposal in **Appendix G.**

Please refer to our Price Proposal Section for all of the pricing information.

It is important to note that the proposed Cellular AMI solution eliminates the costs associated with the purchase, installation, and maintenance of network data collectors, servers and additional utility owned infrastructure. Furthermore, traditional fixed networks are costly to set-up and typically only serve the single purpose of collecting a meter read.

5: Long Term Cost (1X weighted, 10 points max)

Proposer's product has a low operating cost and life cycle cost analysis compared to all respondents. Respondents clearly defined operating costs with reliable and verifiable evidence set at a fixed rate over twenty years. Points in this section shall be based on the summation of the Subtotal Annual Costs from the Annual Operation and Maintenance Cost for Use in Conducting Life-Cycle Cost Analysis in **Appendix G**.

NaaS Cellular AMI eliminates the ongoing costs associated with Network upkeep, maintenance and replacement of utility owned infrastructure and eliminates surprises down the road.

Predictable Utility Budgeting: The Cellular Solution provides a clear/concrete long-term budget. Cellular AMI Eliminates the inevitable future capital expenditures that will be needed to replace the number of collectors required or the unforeseen need for updates, upgrades and replacement of infrastructure, software, or reading equipment.

The Beacon Cellular solution eliminates dependency on a proprietary network.

With a traditional, proprietary fixed network – towns are susceptible to changes made by manufacturers and are often hit with unforeseen expenses to maintain the network.

The Service Unit Fee is the only on-going, transparent charge. The system is “all-inclusive” and the fee includes absolutely everything that our solution offers:

- | | |
|---|---|
| <input type="checkbox"/> Beacon Software | <input type="checkbox"/> Cloud Hosting |
| <input type="checkbox"/> EyeOnWater Customer Portal Website | <input type="checkbox"/> Software Updates/Upgrade |
| <input type="checkbox"/> EyeOnWater Customer Portal Smartphone App | <input type="checkbox"/> Data Storage |
| <input type="checkbox"/> Technical and Field Support | <input type="checkbox"/> Cellular Communication: no cellular contracts to negotiate |
| <input type="checkbox"/> Unlimited Number of User Log-ins with role based access in Beacon | <input type="checkbox"/> Periodic Trainings and refresher courses |
| <input type="checkbox"/> Network Monitoring: Proactive Monitoring / Managing / Maintaining the Communications Network | <input type="checkbox"/> Data Security: Secure Management of your Important Metering Data |
| <input type="checkbox"/> Interoperability / Utility Empowerment | <input type="checkbox"/> Endpoint transfers the data 4 times per day on weekdays - the utility can choose timing for 3 of the 4. One call in per day on weekends. |
| <input type="checkbox"/> Configurable leak alerts by email or SMS text | <input type="checkbox"/> Network Up-Time Guarantee |
| <input type="checkbox"/> Built-in Mobile Transmission | <input type="checkbox"/> 15-minute interval data from all meters |
| <input type="checkbox"/> Customer Portal Support | <input type="checkbox"/> 20-year Network Guarantee |

6: Meter Contents (1X weighted, 10 points max)

Proposer's product has multiple alarms to alert the customer of issues pertaining to leaks, reverse flow, or no flow. The meters would also need to have frequent flow data, customizable read intervals (as low as 1-15 minutes) for customers. Proposers shall provide documentation as stated in **Appendix A** and **Appendix C** of this IFP to verify the validity of the products ability to meet the Town's expectations.

The proposed E-Series Ultrasonic Water Meters will provide the following alerts/alarms:

- Potential Leak
- Exceeding Max Flow (helps with meter-rightsizing)
- Low Temperature -ambient temperature alert (catch a freeze up before it happens!)
- Low Battery
- Tamper
- Empty Pipe (meter removal)
- Reverse Flow
- Pressure (from meters with pressure sensors)
- Water Temperature (from meters with water temperature sensors)
- Encoder Error

The endpoints capture 15-minute interval data and call in four times per day during the week and once per day on the weekends. The data can be viewed in the Beacon software and the EyeOnWater Customer Portal down to every 15-minute interval usage, hourly, daily, weekly, monthly, and annually.

7: Additional Features (up to 10 points)

The Selection Committee will consider any product with features that deviate from the standard evaluation criteria (*e.g. acoustic leak detection, applicability of references, prorated water meter and MIU warranties, full replacement workmanship warranties beyond the minimum requirement etc.*) as value-added criteria which the Town may deem relevant for the review and scoring of products. Refer to the **Proposal Content And Submission Requirements and Appendix C sections**.

Please find all of the details regarding additional features that are available with our solution in the "Additional Features" section of our proposal. In short, we (Badger Meter/Stiles Co) offer a variety

of solutions that work hand-in-hand with the proposed Beacon AMA System to help with the following:

- ❖ Network Monitoring
- ❖ Pressure Monitoring
- ❖ Acoustic Leak Detection
- ❖ Transient Evaluation
- ❖ Transient Source Location
- ❖ Remote Telemetry
- ❖ Level Sensors (reservoirs, storage tanks, manholes, etc)
- ❖ Collection System Monitoring
- ❖ Lift Station Monitoring
- ❖ Overflow Monitoring
- ❖ Water Quality Monitoring
- ❖ PRV Monitoring
- ❖ Meter Testing
- ❖ And more...

All of these added features and solutions are from a single-source (Badger Meter/Stiles) and not third-parties.

By choosing the Badger Meter Beacon AMA Solution, the town can rest assured that they have a trusted partner that will be able to exceed their expectations with a metering/AMI system and also have the ability help solve various challenges in their day-to-day lives of providing clean drinking water to the town. It is our goal to provide a scalable and tailored solution beyond the meters and AMI system, that will help the utility optimize their operations, improve resource management, reduce costs, and enhance customer service.