

Iowa Colony, TX AMI Water Meter Conversion Exhibit A



*12003 Iowa Colony Blvd
Iowa Colony, Texas 77583*

Conducted by:

Performance Services

*801 E. Old Settlers Blvd
Suite 100
Round Rock, Texas 78664
September 1, 2023*

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EXHIBIT A

Scope of Work



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Exhibit A to the installation contract contains scope items that are intended to provide increased reliability, safety, and compliance to the operation of the water services provided by the City of Iowa Colony. The following table represents the UCRMs that are included in the scope of work.

Table 1: UCRM Matrix

Utility Cost Reduction Measures		
UCRM #	Building/Site	Water Meters w/ AMI
1	Residential and Commercial Customers	◆

Project scope of work specifics follow:

UCRM-1: Water Meters w/AMI

This measure considers replacement of the existing residential and commercial water supply meters. The current water meters in use are manually read. The new metering system will be a fixed-based Advanced Metering Infrastructure. In addition to the replacement of the current water meters, PSI will provide and install (2) 100-foot monopole towers for the communication infrastructure. Benefits include:

- Accurate flow measurements at extended-low, low, medium and high flows
- Automated Water Meter Reading
- No moving parts
- 20-year accuracy warranty
- Accurate customer billings

This measure includes replacing the following quantity and size of water meters:

Meter Size	Quantity
5/8"	2,038
1"	1,179
1.5"	3
2"	28
3"	2
4"	1
6"	1
8"	3
Unknown	13
Total	3,268

- All material made obsolete during this work will be disposed of according to state and local requirements.

- Scope includes furnishing the following spare water meters:
 - 50 – 5/8" x 3/4" water meters w/ communication endpoints
 - Up to 100 Meter Box Replacements
 - All meter boxes will have new meter lids
 - Meter Box Swap in the Sterling Lakes Neighborhood, leaving the existing meter box in place and providing and installing side boxes for the endpoints

Solid State Water Meters:

Ultrasonic meters use solid-state technology in a compact, totally encapsulated, weatherproof, and UV-resistant housing, suitable for residential and commercial applications. Electronic metering provides information such as, rate of flow and reverse flow indication as well as data not typically available through traditional, mechanical meters and registers. Electronic metering eliminates measurement errors due to sand, suspended particles and pressure fluctuations.

Solid state technology meter features:

- Extended low-flow rate lower as compared to a typical positive displacement meters, allowing for very low water flows to accurately be measured
- Simplified one-piece electronic meter and register that are integral to the meter body and virtually maintenance free.
- Sealed, non-removable, tamper-protected meter and register.
- Easy-to-read, 9-digit LCD display presents consumption, rate of flow, reverse-flow indication, and alarms.
- High resolution industry standard ASCII encoder protocol.

Solid state technology meters comply with applicable portions of the 2018 revision of ANSI/AWWA Standard C-715 and C-710 for accuracy and pressure loss requirements. The meters are also NSF/ANSI Standard 61 Annex F and G compliant and tested to AWWA standards.

AMI - Advanced Metering Infrastructure

Advanced metering systems are comprised of state-of-the-art electronic/digital hardware and software, which combine interval data measurement with continuously available remote communications. These systems enable measurement of detailed, time-based information and frequent collection and transmittal of such information to various parties. AMI or Advanced Metering Infrastructure typically refers to the full measurement and collection system that includes meters at the customer site, communication networks between the customer and a service provider, such as the City, and data reception and management systems that make the information available to the service provider.

For this project, AMI connects smart water meters to powerful analytic software tools, providing the ability for the City to optimize and improve utility bill management. Additionally, customer portals will allow water customers to manage and track their own water usage.

Features include:

- Customizable dashboards to deliver information in a format matched to your requirements
- Ability to set unique alert conditions to define and monitor exceptions

- Customer service tools, including a consumer engagement website and smart phone/tablet apps, enable access to individual customer information
- Secure, cloud-based – ISO 27001 certified and SOC 2 examined for security, availability and confidentiality
- Automatic software updates
- Built-in API's and data exchange modules support data transfer to utility billing, work order, inventory/asset management, Customer Relationship Management (CRM), Geographic Information Systems (GIS), and other legacy utility systems

Benefits include:

- Web-Based Software
- Custom Integrations
- Device and Meter Readings
- Consumption Profiles
- Multi-Site Visibility
- Multiple Users
- Dashboard to Show Status
- Integrated Mapping
- Immediate data of water utility system
- Allows for proactive customer engagement
- Eliminate need for full time meter readers
- Minimize resources used for billing
- AMI integration with billing system
- Minimize customer billing complaints
- Improved customer service
- Estimated meter readings will virtually be eliminated
- The City of Iowa Colony will be able to collect the information necessary to generate water billing statements with minimal visitation to customer properties
- Customers will be able to track and monitor their water usage via their smart device
- Information will be integrated for billing, outage management and water theft prevention
- Monthly water bill data will be significantly enhanced with more detailed information
- The City of Iowa Colony will be able to provide more information about outages and interruptions minimizing customer complaints and communication difficulties
- If a customer is moving, The City of Iowa Colony can read customer meters and provide a detailed bill as of the customer move date.