



# Town of Jerome, AZ Request for Proposals (RFP)

METER REPLACEMENT PROJECT, CELLULAR AMI PROPOSAL

**TECHNICAL OVERVIEW**

**PREPARED BY: MASTER METER, INC. & PUREOPS**

**SUBMISSION DUE DATE:** WEDNSDAY, NOVEMBER 5, 2025

SECTION 1

**INTRODUCTION**





## SECTION 1 | INTRODUCTION

Master Meter, Inc. and PureOps appreciate the opportunity to submit the accompanying technology proposal for Town of Jerome. With over four decades of experience in providing utilities with specialized flow measurement and data technologies, we are intimately familiar with Jerome's unique challenges. Master Meter is well-positioned to help Jerome achieve its short and long-term goals. Our commitment to partnership is a key reason why water utilities across the country choose Master Meter as their water measurement technology provider. Every day, we strive to deliver exceptional service and a customer-centric approach, ensuring top-notch response times, product quality, and accuracy in order fulfillment.

Based on the service area for Jerome, AZ Master Meter and PureOps are proposing the Master Meter's **Allegro Cellular Advanced Metering Infrastructure (AMI) System**.

The Master Meter **Allegro Cellular AMI System** is a cutting-edge solution that leverages IoT and existing cellular networks to streamline water management. This secure, cost-effective platform simplifies meter data collection and transmission, accelerating digital transformation without the need for extensive infrastructure. Allegro Cellular is designed with unparalleled flexibility. It can operate as a standalone Network-as-a-Service (NaaS) and seamlessly integrate with Allegro Licensed AMI infrastructure. With rapid deployment and instant network connectivity, Allegro Cellular delivers all the advantages of traditional fixed network solutions without the significant investment in network infrastructure.

Partnering with Master Meter and PureOps guarantees exceptional service responsiveness and personalized attention from our dedicated sales and customer focus team. We believe that a "vendor partnership" extends well beyond the initial project, encompassing the entire customer journey. We view the purchase of our water measurement technology as the beginning of a long-term partnership with Jerome, and we are eager to embark on this journey together.

We appreciate the opportunity to submit our qualifications for the Town of Jerome, AZ Meter Replacement Project. Should you have any questions or require further information regarding this RFP or our qualifications, please feel free to contact us at your convenience.

Sincerely,

A handwritten signature in black ink that reads "Brandon Foster".

Brandon Foster  
Regional Vice President of Sales – Southern Region - Master Meter, Inc.

## SECTION 2

# **SUBMITTER HISTORY**



## SECTION 2 | SUBMITTER HISTORY

### ABOUT MASTER METER, INC.

Our journey began 40 years ago in the City of Longview, Texas. We initially focus on bringing our measurement technologies to the communities of Texas and neighboring states. But for the last few decades, we've become a principal smart water technology provider to water utilities of all sizes across fifty states.



Incredibly, for a relatively young company, Master Meter's management team represents nearly 250 years of utility market experience. The installation of over 150,000 Octave ultrasonic large commercial meters has fueled the adoption of solid-state measurement across the North American waterworks industry. We now provide data services for 1.5 million meter reads in our Microsoft Azure cloud. Our AMI/AMR endpoint technology is present in more than seven million installations.

Master Meter is a high-service provider of water management solutions specializing in advanced digital water metering, data delivery, and utility intelligence software. We continually expand our portfolio of intelligent, innovative smart water technologies to support the dynamic water utility business environment in municipalities like Valle Verde and its evolving role within Smart City and IoT strategic planning.

Engineering and design firms like Frost & Sullivan have bestowed Master Meter with prestigious awards in addition to those previously mentioned peer-based Smart water Summit awards in our introductory letter. We consistently innovate and create lasting value for our industry and the utilities served within it.

### SOLVING CHALLENGES

Water utilities partner with Master Meter to solve their most challenging water stewardship challenges and harness our innovative technologies to up their smart water tech game. Utilities of all sizes across North America trust our products in millions of homes and businesses.



#### WATER LOSS | NRW

Non-Revenue Water (NRW) is a financial burden. Chemicals, electricity, and inefficiencies all cost money and drain resources. Address NRW with our superior measurement and reporting technology.



#### MANAGING DEMAND

Growing populations only magnify the challenges of managing water demand and funding necessary infrastructure investment. Our reliable measurement and systems technologies help utilities do more with less resources.



#### IMPROVE REVENUE

Stop losing revenue from inaccurate meters. Utilities everywhere are quickly adopting our Octave and Sonata Ultrasonic technologies because there's no wear, and they add to the bottom line.



## ABOUT PUREOPS

PureOps is a trusted provider of comprehensive water system management solutions, with a specialized focus on underserved communities and a diverse portfolio of clients ranging from small, rural utilities to major corporate enterprises, historic towns, and even the world's first purpose-built commercial spaceport. Initially founded as an Operator of Record for small water utilities, PureOps has expanded its capabilities to offer a wide range of services, including expert consulting, project management, and ongoing operator support for water systems with in-house management.



With a particular expertise in all aspects of metering—from audits and calibration to repairs and installations—PureOps is recognized for its unparalleled efficiency and accuracy in the Southwest. Our meter services are essential for reliable water accounting, utility revenue, and customer equity, and we deliver them with precision and trustworthiness, saving time and costs for utilities.

In addition to our meter services, PureOps also offers state-of-the-art leak detection services, developed in response to client needs and built on years of experience and cutting-edge technology. Whether providing proactive seasonal verification or addressing specific issues at large and small utilities, PureOps is committed to delivering timely, effective solutions to safeguard water infrastructure and optimize system performance.

At PureOps, we pride ourselves on being a reliable partner to utilities of all sizes, providing tailored solutions that ensure operational excellence and long-term success.

SECTION 3

**PROPOSED TECHNOLOGY**





## SECTION 3 | PROPOSED TECHNOLOGY

### SYSTEM

#### MASTER METER'S ALLEGRO CELLULAR (LTE-M) AMI - SYSTEM OVERVIEW

Allegro Cellular (LTE-M) AMI system is a state-of-the-art networking solution for smart metering that utilizes existing cellular infrastructure and IoT protocols (LTE-M) for establishing connectivity between the Allegro Cellular AMI Endpoints and backend data management systems. These cellular AMI endpoints may be connected to most any major make /model encoded register providing immediate network connectivity all the benefits of traditional two-way fixed solutions without the need to install or maintain data collectors or the infrastructure to support them. The system would provide the city with the tools to manage their utility, while Master Meter manages the solution through cellular-based, future-proof technology that will be viable for decades to come.



#### Benefits of the Allegro Cellular AMI System Includes:

**Minimal Infrastructure** – One of the primary advantages of Allegro Cellular is that it uses a network that has already been set up for other purposes. This means the city does not need to construct and maintain new infrastructure for communication purposes. This is particularly beneficial for small systems who want to move directly to AMI by reducing the costs of deployment.

- **Reliability** – Because LTE cellular networks are used for other purposes outside of smart metering they are closely monitored and maintained by both the FCC and LTE cellular network provider, resulting in extremely reliable coverage of the system and high levels of QoS (Quality of Service)
- **Network Coverage and Redundancy** – LTE Cellular Networks cover 98% of the United States and typically provides built-in redundant network coverage.
- **Robust Technology** – Cellular endpoints are not "new technology." Cellular technology has been a part of our everyday lives for decades. Cellular networks are robust and proven technology that is being used by thousands of different IoT applications across countless industries.
- **Deployment Flexibility** – Because it does not require large infrastructure investments, Allegro Cellular can be implemented with any number of meters, large or small, while still providing a strong business case for upgrading to AMI for those City's with budget limitations. The simplicity of Allegro Cellular deployments makes it easy for the city to move directly from an existing manual/mobile reading system to Allegro Cellular AMI or operate a blended hybrid system depending on the specific needs of the utility.



- **Security** – Allegro Cellular AMI Endpoints connect to Master Meter's cloud-hosted servers through a secure VPN (Virtual Private Network) tunnel so that no data is exposed through the public internet and data is communicated over FCC-licensed radio frequencies that are owned and monitored by LTE cellular network carriers.
- Customized Reporting Options give the city the ability to set threshold levels for analysis reports, meter reading management reports, tamper detection, leak detection, on-demand reads, and many more capabilities.
- **Data Access** – Allegro Cellular data can be quickly and easily accessed by authorized utility personnel from wherever that data is needed, not just in the office, using Master Meter' web-based Meter Data Management solutions and native Android applications.
- Online Customer Portals and Smartphone Apps enable a "Self-Service" model to the end customer and empower the utility to enforce restrictions and water efficiency programs.
- System wide Time Synchronized Reads (every 15 minutes) allowing highly advanced Non-Revenue Water (NRW) calculations and analytics.

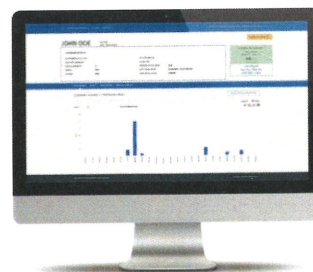
#### MASTER METER'S ALLEGRO AMI – COMMUNICATION (FREQUENCY) DISTINCTION

Allegro Cellular LTE-M is a low-power cellular technology developed for the Internet of Things (IoT) and machine-to-machine (M2M) communications. It operates using existing LTE networks and does not have any specific LTE Frequency bands assigned to it.

#### ANALYTICS SOFTWARE

##### HOST SOFTWARE – HARMONY ENCORE MDM (METER DATA MANAGEMENT)

As the bridge between physical meters, registers, or water entity endpoints to the water utility's back office (e.g., billing/finance, CSR and engineering departments), Harmony Encore MDM becomes the nucleus of meter management operations. It has the distinction of dissecting through the field/meter data so that any water utility is better equipped to not only prioritize ongoing issues, but also predict when or what issues might occur in the future.



Harmony Encore MDM has successfully been integrated with over 100 different billing applications; these integration success stories have occurred throughout N. American and Canadian water utilities over the last 6+ years.



Master Meter has partnered with Microsoft Azure Cloud Services to provide Harmony Encore MDM as a SaaS (Software as a Service). As such, Harmony Encore MDM can provide water utilities with scalability, performance, high availability, and enterprise grade security.

The following key modules/functionalities are included in Master Meter's software solution:

1. Integration
  - Delivers predictable, low-latency performance for Harmony Encore MDM application as the traffic stays on the Microsoft global network by default.
2. 360 Degrees Network-As-A-Service Protection
  - Protects Harmony Encore MDM application, the included virtual networks, and workloads with services that support the Zero Trust approach to security.
    - i. Secure virtual network infrastructure using segmentation.
    - ii. Protect application connections with Azure WAF (Web Application Firewall).
    - iii. Get intelligent threat detection with Azure DDoS Protection - protects all Azure resources & applications from Distributed Denial of Service (DDoS) attacks.
    - iv. Get private connectivity with Azure Private Link – allows private access to Harmony Encore MDM services hosted on the Azure platform, keeping all data on the Microsoft network.
3. Load Balancer
  - Delivers high availability and network performance to Harmony Encore MDM application
4. Disaster Recovery
  - Seamlessly backs up water utilities metering data
    - i. The centralized management interface for Azure Backup and Azure Site Recovery makes it simple to define/manage policies to natively protect, monitor, and manage enterprise workloads across hybrid and cloud.

Using Harmony Encore MDM, the utility employees can create & manage consumption reports and related meter data analytics. While the default reports are enumerated below, some customization reporting can also be implemented by each utility user. The default queries (or reports) are:

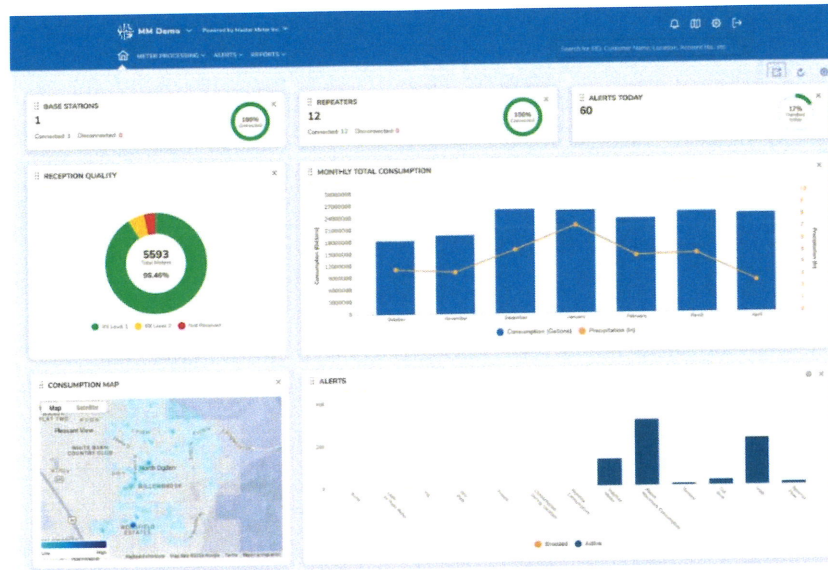
- Consumption
- Meter Reading
- Unread or Zero Consumption
- Hi/Low (i.e., unexpected readings)
- Duplicate Meters
- Meter Change-outs
- Data-log
- On Demand Reading





## TECHNOLOGY OVERVIEW PROPOSAL | TOWN OF JEROME, AZ

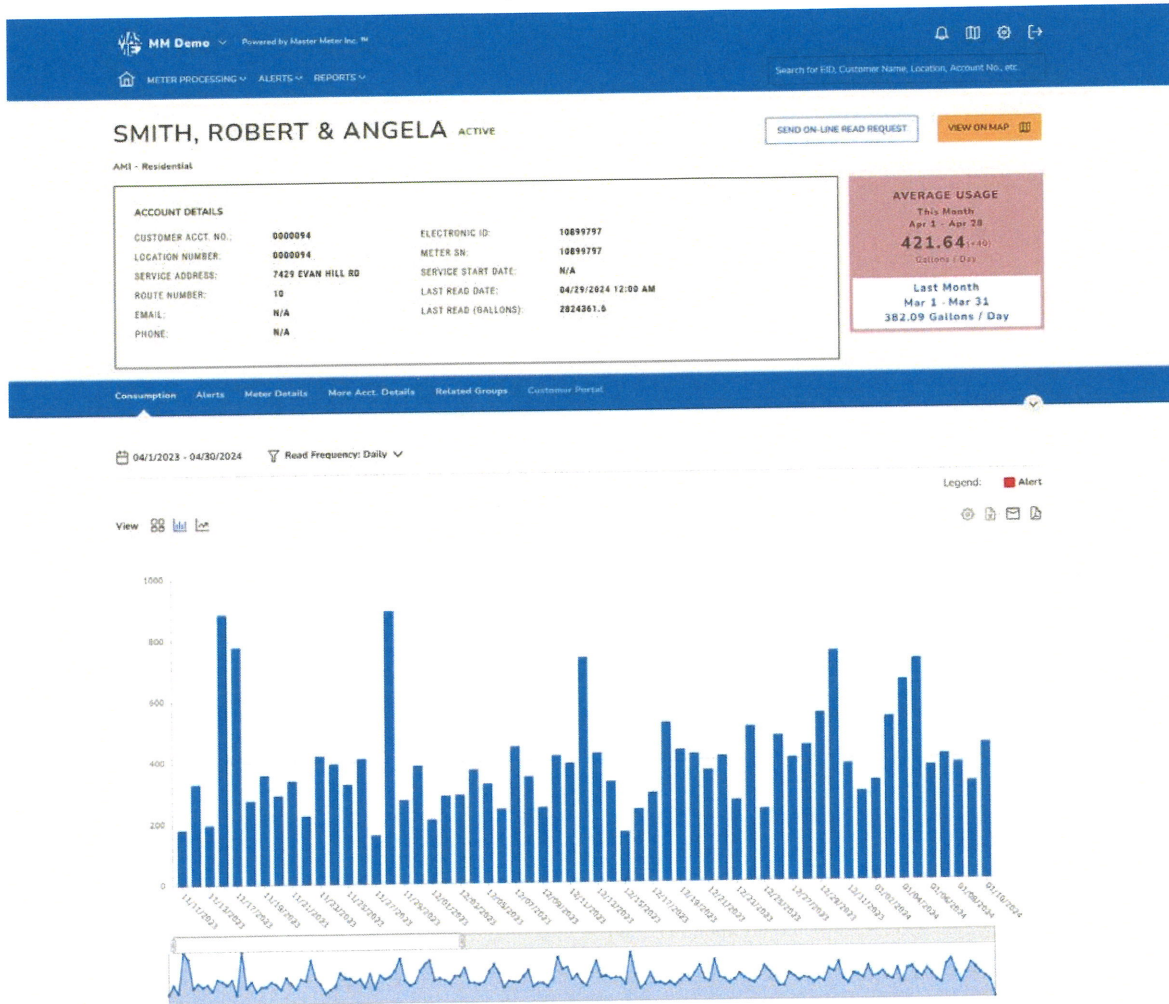
The screenshots below exemplify these capabilities as well as the modernized workflow approach.



Harmony Encore MDM: Dashboard



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Harmony Encore MDM: Meter Card



## TECHNOLOGY OVERVIEW PROPOSAL | TOWN OF JEROME, AZ

### Workflow: Consumption Report in Harmony Encore MDM

### Harmony Encore MDM: Sending a Data Log Request





## TECHNOLOGY OVERVIEW PROPOSAL | TOWN OF JEROME, AZ

MM Demo

Powered by Master Meter Inc.™

METER PROCESSING

ALERTS

REPORTS

Search for EID, Customer Name, Location, Account No., etc.

ConsumptionMeter ReadsInfrastructureFixed NetworkMy Water Advisor

Consumption

Consumption for Period

Consumption for Group

Inactive with Consumption

Search by All

Past Month

12:00 AM - 11:59 PM

Interval: Week

View

VIEW ON MAP

<input type="checkbox"/>	ELECTRONIC ID	ACCOUNT NO.	METER SN +	CUSTOMER NAME	ADDRESS	10/2024	20/2024	21/2024	22/2024
>	<input type="checkbox"/> 2641583	026258-00ab	N/A	PATEL, JAYMIN	113 CATALPA RD	376	504	770	888
>	<input type="checkbox"/> 2164523	2298011	02164523	GARY E. ATTEB...	3030 N 425 E	1120	1745	1634	1747
>	<input type="checkbox"/> 2164729	21391011	02164729	CAMERON C. S.	2767 N 900 E	1524	2098	2010	2084
>	<input type="checkbox"/> 2164954	40004682	02164954	MATT & HOLLY ...	902 E 1510 N	307	588	374	669
>	<input type="checkbox"/> 2164990	40004803	02164990	ALEXANDER & ...	2408 N MOUNT...	1250	1724	2129	1603
>	<input type="checkbox"/> 2165142	0000047	02165142	WHITE, DOUG &...	5194 SADDLE P...	760.01	983.88	1029.91	7818.87
>	<input type="checkbox"/> 2165374	40003621	02165374	JON LEONARD	5194 SADDLE PARK DR 2677 N 1325 E	686	1027	1072	976
>	<input type="checkbox"/> 2165727	30624014	02165727	CARL & CRYSTA...	635 E 2300 N	157	354	220	271
>	<input type="checkbox"/> 2165728	41001011	02165728	HAY WARD	950 E 1700 N	650	1277	1105	1306
>	<input type="checkbox"/> 2165731	21004271	02165731	RYAN & SUZAN...	2857 N 1425 E	385	525	566	704
>	<input type="checkbox"/> 2165732	52196023	02165732	RENEE BALDEN...	579 E 1900 N	322	845	604	671
>	<input type="checkbox"/> 2165734	30688013	02165734	THANE GREENF...	2388 N 675 E	1404	276	3655	1347

### Harmony Encore MDM: Consumption Report



## TECHNOLOGY OVERVIEW PROPOSAL | TOWN OF JEROME, AZ

All Types ▾ | Active (408) | Snoozed (0) | In Process (7)

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Select Action ▾ | Add Comment ▾ | View

Select Action:

- ☒ Send Email
- ☒ Send Text Message
- Called
- Meter Technician Sent
- ☒ Work Order Issued
- Fixed
- No Action

Add Comment:

Dear Customer - please be advised that, due to the main water break, your water service will be shut off until 9:00 PM Thursday 3/31/21.

Change Status To:

- Snoozed
- In Process
- Archive
- ☒ None

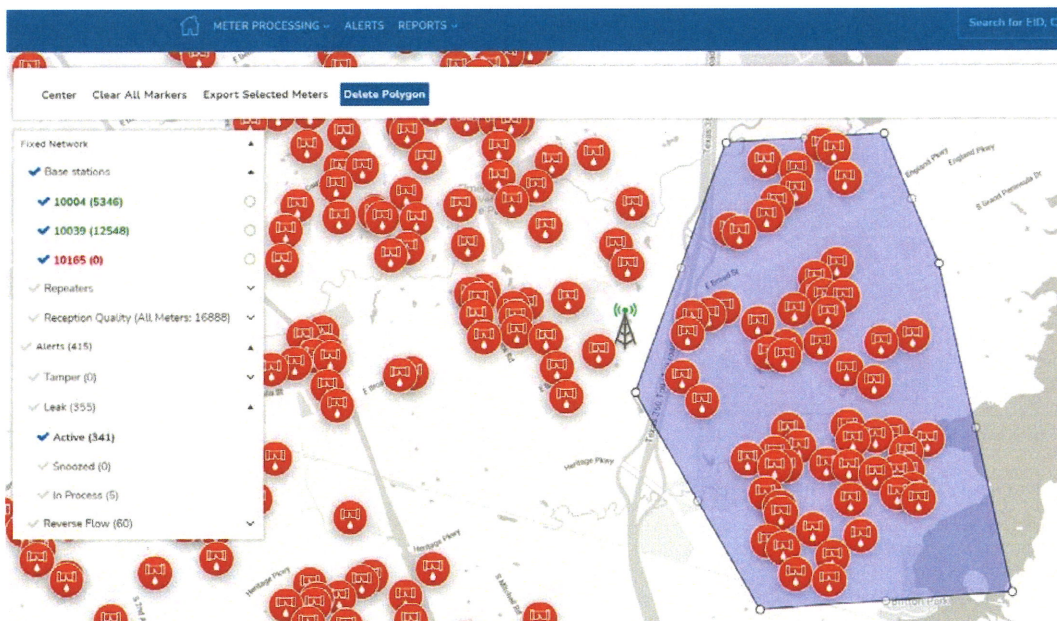
Snooze for 14 ▴ ▾ days

**SAVE**

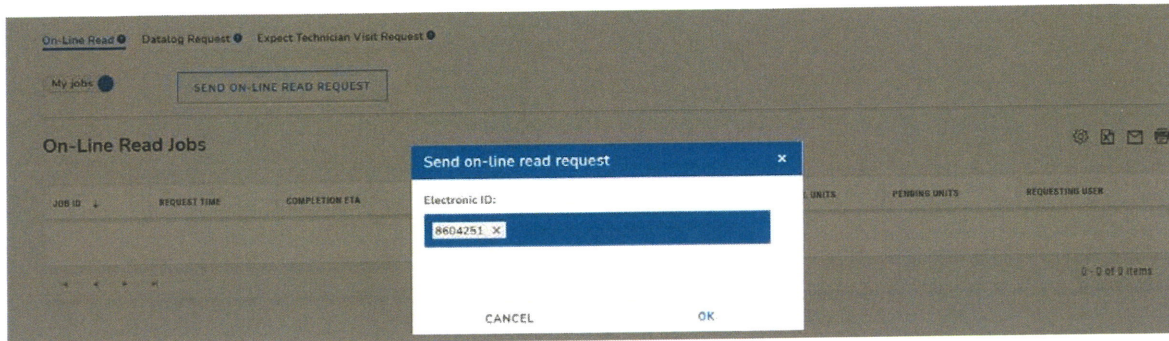
ALERT STARTED ON	ALERT LAST RECEIVED ON ▾
3/31/2021, 4:46 PM	3/31/2021, 4:46 PM
3/31/2021, 3:45 PM	3/31/2021, 3:45 PM
3/31/2021, 3:45 PM	3/31/2021, 3:45 PM
3/31/2021, 3:31 PM	3/31/2021, 3:31 PM
3/31/2021, 2:46 PM	3/31/2021, 2:46 PM

10345543 | 1250004440007 | Reverse Flow | Hourly Back Flow (Gallons): -1.0 ... | 3/31/2021, 2:46 PM | 3/31/2021, 2:46 PM

### Harmony Encore MDM: Handling Alerts and Customer Digitization



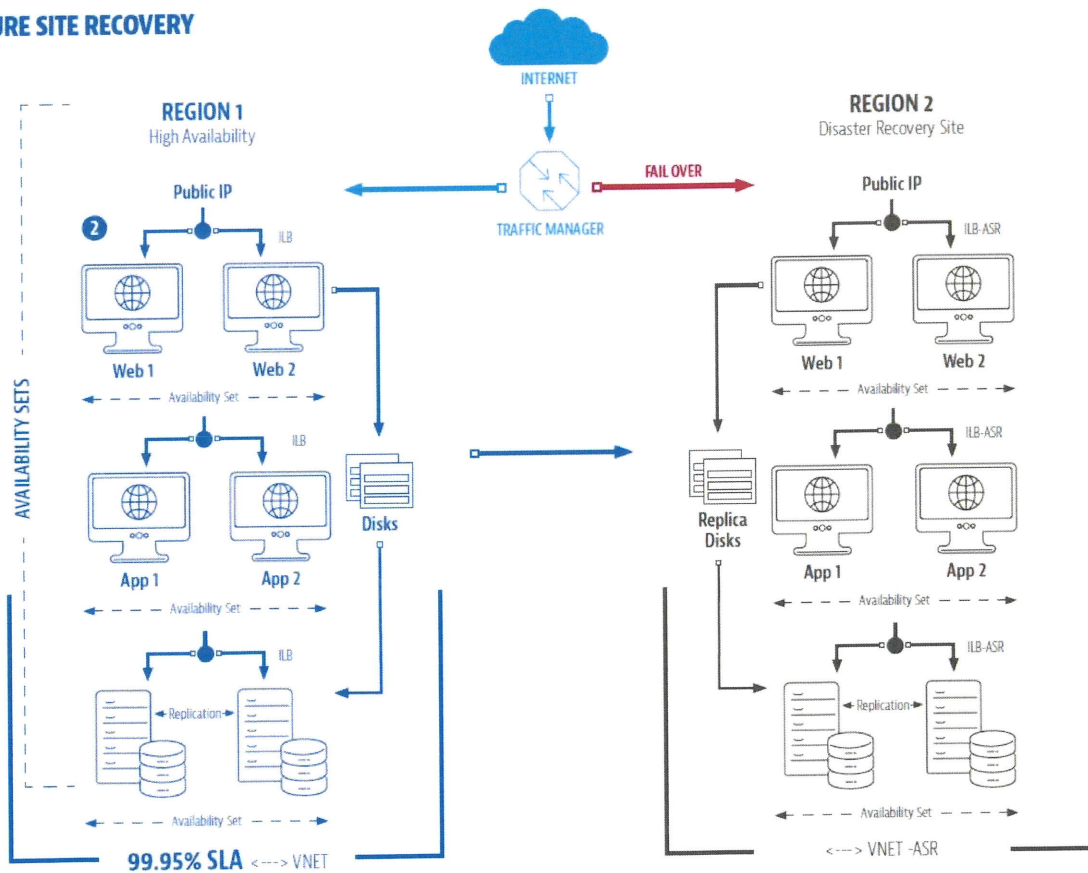
### Harmony Encore MDM: Google GIS Built-in



On Demand Reading Capability

## DATA & SECURITY

### AZURE SITE RECOVERY



Disaster Recovery: Harmony Encore MDM/HE (Head End Server)





**No Limit:**

Master Meter does not limit its customers to a pre-set amount of storage; any metering activity, such as readings, consumption, alerts, are automatically stored in a dedicated cloud server (provided and hosted by Microsoft Azure Cloud Services)

**No Time Restriction:**

After the default 24-months data storage, data is automatically archived (moved to a separate data table/server) in perpetuity; Master Meter never deletes any of its customer meter data. The Owners can access, export, and save any metering data at any point in time.

**Unlimited Data Access:**

The user does not directly interact with Microsoft Azure Cloud – the interface is Harmony Encore MDM itself.

**Automatic Data Backups:**

The user does not directly interact with Microsoft Azure Cloud – the interface is Harmony Encore MDM itself.

In partnership with Microsoft **Azure' MONITOR' services**, Harmony Encore MDM 's monitoring infrastructure automatically detects and diagnoses network issues in real time and then correlates any active infrastructure issues to possible causes for swift resolution. All metrics and logs, such as applications, diagnostics, virtual/cloud uptimes, network security and resource logs, are perpetually stored in data stores for traceability.

Also leveraging Microsoft Azure cloud infrastructure, all Harmony Encore MDM services are protected from loss with an automated backup system to the cloud. **Full backups are taken every week, differential backups every day, and log backups every 5 minutes.**

**Master Meter, Inc. achieved ISO 27001 certificate in 2017 and has** followed this standard since then. The company is strictly adhering to the technical guidelines as set forth, including the following internal ISMS (Information Security Management System) activities:

- Internal Audit Plans,
- Management Reviews,
- Information Security Risk Objectives,
- Information Security Assessments & Treatment Plans,
- Monitoring, Measurement, Analysis and Evaluation of Existing Documents and Record Controls,
- Organizational Roles & Responsibilities,
- Corrective Actions & Communication Plans.
- Steering Committee Commitments

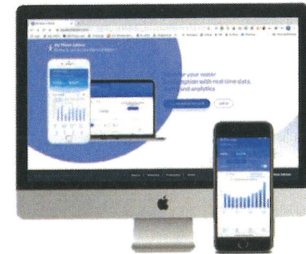
Furthermore, **Master Meter, Inc. has also achieved SOC Type I and II compliance;** the company will be happy to provide any additional information provided that the suitable NDAs and contract obligations have been met.



## MY WATER ADVISOR (MWA)

My Water Advisor is your personal portal for monitoring water consumption, advancing conservation and the stewardship of earth's most precious resource.

My Water Advisor puts the power behind Harmony Encore MDM into the hands of the utility's customer. Ratepayers can quickly jump online using the web-enabled portal or use the My Water Advisor app to access up-to-date hourly usage information, gain insight into their own water usage, and perform comparative usage analysis. MWA empowers a self-serve customer service model for utility customers and helps everyone be their own water manager. My Water Advisor helps stop the endless unexpectedly high month-end bill complaints to City Hall.



Customers can set usage threshold alarms and receive timely leak alerts in the palm of their hands. Conservation begins with information and empowerment. It begins with Master Meter's My Water Advisor Portal and App.

## TRAINING AND SUPPORT

### TYPICAL CURRICULUM

Master Meter has developed a thorough training process for water utilities. At a glance, a Training Plan specifically created given each water utility's unique requirements will be created. As a minimum, they will cover the following:

- I. **INSTALLATION APPROACH**
- II. **INSTALLATION TOOLS**
  - a. Instructional Analysis & Methods
- III. **TRAINING METHODOLOGY**
  - a. Training Resources
  - b. Training Length
  - c. Training database
  - d. Training material list
  - e. Detailed training curriculum
  - f. Categories
    - I. Meters
    - II. Communications Systems
    - III. Software
- IV. **TESTING & EVALUATION TRACEABILITY MATRIX**

A Training Plan following the above categories will be created and submitted for the city's review and approval.





## SUPPORT

Following the physical installation and set-up of the system, Master Meter technical team will train the water utility employees on their own computers. The trainer(s) will conduct numerous hands-on guidance sessions for the staff, targeting to demonstrate how to operate Master Meter's reading and meter management software applications using actual reads from the installed meters; this will maximize the training objectives as it will demonstrate the system's overall capability to the city personnel using real-world data. Should any errors or problems occur, Master Meter's dedicated training staff will use them as an example for the key personnel during training and report them back to Master Meter engineering team for further support and product enhancements.



STS department has a reactive reporting system to isolate, document, and solve reported hardware/software defects by responding to service requests and product changes and address customer inquiries with printed or electronic documentation, examples, or additional explanation/clarification.

Master Meter is also capable of monitoring and remotely diagnosing any problem in Harmony MDM. Being a SaaS (Software-as-a-Service), a remote connection to the city's computers is almost never necessary. However, in rare cases that such connections are required, Master Meter can remotely connect using a remote access solution (such as built in windows RDP, Team Viewer, VNC, etc.) of the city's choice.

Occasionally on-site troubleshooting/analysis may be required; in this, Master Meter invites the customer's assistance with easy, low time-consuming activities to troubleshoot. Lastly, where required to fulfill a contractual commitment and to minimize the city's business downtime, in addition to any Master Meter Systems Technical support or contracted personnel, a local distributor is also available to assist in resolving any pending system or software concerns.

Master Meter's **SYSTEM TECHNICAL SUPPORT (STS)** has Standard Support hours via: Toll-free telephone support **1-800-928-6388**, which is available Monday through Friday from 7:00AM to 5:00PM CST

1. Remote hands-on troubleshooting
2. Assist sessions in refresher trainings

This ongoing support will be available to the water utility as part of the annual hosting/support fee; additionally, it will remain available to the City during the contract period so long as these fees are kept current and the technical support for the system remains feasible.



As a universal guide, Systems Technical Support normally provides support for:

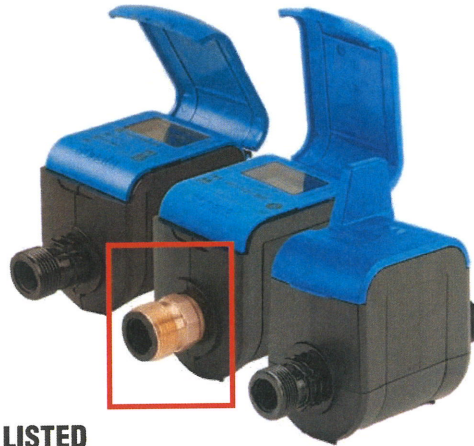
1. General questions regarding functionality,
2. Use of product,
3. Instructional how-to's, and
4. Requests for assistance on Master Meter AMR/AMI Network Equipment, Software and Metering Products
5. On-site support to troubleshoot most incurred field issues:
  - a. new endpoint registration
  - b. endpoint communication problems
  - c. base station connections
  - d. software how-to's
  - e. manual readings of meters, if required

# SECTION 4

## APPENDICES



## SONATA ULTRASONIC METER



The Sonata Residential Ultrasonic water meter is Master Meter's next step in unifying our ultrasonic solid-state measurement profile. Utilizing advanced ultrasonic flow measurement, the Sonata greatly improves low flow measurement compared to residential mechanical meters, making it an ideal solution for addressing Non-Revenue Water (NRW). The Sonata is fully Internet of Things (IoT) ready and capable of meeting the challenges of tomorrow's smart water networks.

### Technical Specifications:

**AWWA Standard:** Meets ANSI/AWWA Standard C715-18 and ISO 4064 rev. 2014

**NSF / ANSI Standard:** Compliant with NSF/ANSI 372, NSF/ANSI 61, and SDWA.

**Residential Fire:** Installations in accordance with NFPA 13D. Listed to UL Subject 327B for 3/4" and 1". 5/8" and 5/8"x3/4" excluded from UL Listing.

**Working Pressure:** 175 PSI

**Liquid Temperature:** 33 F - 122 F

**Ambient Temperature:** -13 F - 131 F for the display

**Power Source:** Sonata with Integrated Allegro operates on one D Cell Lithium Thionyl Chloride battery. All other Sonata configurations operate with two C Cell Lithium Thionyl Chloride batteries.

**Environmental Protection:** Factory potted design provides NEMA 6P (IP68) for meter pit submersion.

### Features & Benefits:

Powerful solution to reduce non-revenue water.

Compliant with Safe Drinking Water Act (SDWA).

No moving parts for lifetime accuracy.

20 year warranty (10 years full / 10 years prorated).

Patented obstruction free flow tube minimizes head loss and risk of damage to sonic reflectors.

Detailed LCD features totalized flow, rate of flow, battery alarm, leak alarm, burst pipe alarm, and tamper alarm.

Fully submersible; IP68 design.

Optional Internal RF module for Master Meter Allegro AMI or Master Meter 3G AMR Systems.

Optional encoder output cable with wired pigtail, Nicor compatible connector, Itron (ILC) compatible connector, or magnetic induction coil, allowing connectivity to third-party AMI or AMR systems.

Install in a wide variety of positions; horizontal, vertical, or inclined.

IoT ready for connectivity to Smart City Networks.

Optional official Reclaim water Pantone color available for all Sonata sizes and models.





## SONATA ULTRASONIC METER



## Technical Specs (Cont d):

**Display Units:** Multi line 9 digit LCD (Programmable flow measurement in USG, Cubic Feet, or Cubic Meters. Rate of Flow available in GPM, Lt/s, M<sup>3</sup>/h).

**Output Configuration:** Integrated Allegro RF module, Integrated 3G RF module, or encoder output cable with wired pigtail, Nicor compatible connector, Itron (ILC) compatible connector, or magnetic induction coil, allowing connectivity to third-party AMI or AMR systems.

**Data Logging:** Internal data logger with consumption reports and alarms.

**Construction Material:** Lead-free construction available in HP Glass Reinforced Polymer or Brass alloy with Polymer Liner.

**Flow Tube:** Patented flow tube design utilizes a "Z" shape sonic beam flight pattern. Sound waves are directed along the wider axis of the flow tube and aligned with the majority of the fluid flow. This oblong design of the flow tube minimizes flow disruptions near the transducers, such as cavitation, swirls, and eddies to ensure a wider range of meter accuracy. Moving the transducers to the side walls of the flow tube, rather than on the top of the flow tube, places wide beam ultrasonic soundwaves out of the general path of entrained air bubbles, which typically move to the top of an internal surface.

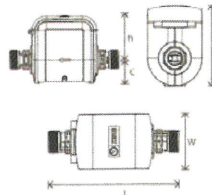
## Operating Characteristics and Dimensions:

Sonata Operating Characteristics and Dimensions	5/8" x 1/2" (15 x 13 mm)	5/8" x 3/4" (15 x 20 mm)	3/4" Short (20 mm)	1" (25 mm)
Safe Maximum Operating Capacity	25 GPM (5.7 m <sup>3</sup> /h)	35 GPM (7.9 m <sup>3</sup> /h)	35 GPM (7.9 m <sup>3</sup> /h)	55 GPM (12.5 m <sup>3</sup> /h)
UL Operating Range (98.5% - 101.5% Accuracy)*	-	-	2 - 30 GPM (0.45 - 6.8 m <sup>3</sup> /h)	2 - 50 GPM (0.45 - 11.3 m <sup>3</sup> /h)
Normal Operating Range (98.5% - 101.5% Accuracy)*	0.10 - 25 GPM (0.023 - 5.7 m <sup>3</sup> /h)	0.10 - 35 GPM (0.023 - 7.9 m <sup>3</sup> /h)	0.10 - 35 GPM (0.023 - 7.9 m <sup>3</sup> /h)	0.38 - 55 GPM (0.09 - 12.5 m <sup>3</sup> /h)
Extended Low Flow (97% - 103% Accuracy)	0.03 GPM (0.007 m <sup>3</sup> /h)	0.05 GPM (0.01 m <sup>3</sup> /h)	0.05 GPM (0.01 m <sup>3</sup> /h)	0.11 GPM (0.025 m <sup>3</sup> /h)
Length	7-1/2" (190 mm)	7-1/2" (190 mm)	7-1/2" (190 mm)	10-3/4" (273 mm)
Width	3" (80 mm)	3" (80 mm)	3" (80 mm)	3" (82 mm)
Height (Integrated Allegro)	4-1/2" (117 mm)	4-1/2" (117 mm)	4-1/2" (117 mm)	4-3/4" (121 mm)
Height from Center Pipe (Integrated Allegro)	3" (80 mm)	3" (80 mm)	3" (80 mm)	3-1/4" (82 mm)
Height (Encoder and Integrated 3G)	4-1/2" (117 mm)	4-1/2" (117 mm)	4-1/2" (117 mm)	4-3/4" (121 mm)
Height from Center Pipe (Encoder and Integrated 3G)	3" (80 mm)	3" (80 mm)	3" (80 mm)	3-1/4" (82 mm)
Weight (Brass)	2.43 lbs (1.1 kg)	2.87 lbs (1.3 kg)	2.87 lbs (1.3 kg)	3.96 lbs (1.8 kg)
Weight (Polymer)	1.76 lbs (0.8 kg)	1.98 lbs (0.9 kg)	1.98 lbs (0.9 kg)	2.20 lbs (1 kg)

\* In the water temperature of 45 to 85 F (7 to 30 C), meter consumption is accurately measured at:

+/- 1.5% in the Normal Operating Range

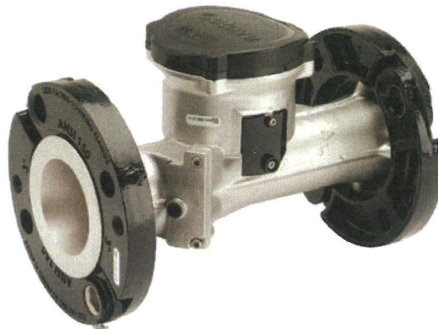
+/- 3% in the Extended Low Flow



Actual reclaim meter color may vary slightly from the picture shown above.  
v0305.25F



## OCTAVE<sup>®</sup> ULTRASONIC METER



Available in sizes 1.5", 2", 3", 4", 6", 8", 10", and 12"

UL Certification is available on 1.5" through 8" only.  
FM Approval is available on all sizes.

Octave brings the latest in ultrasonic metering technology to Commercial/Industrial (C&I) water meters and puts precise measurement where the real flows exist. An excellent alternative to mechanical compound, single-jet, floating ball, fire-service type and turbine meters, Octave excels at maintaining sustained accuracy for the life of the meter while providing smart AMR capabilities.

### Technical Specifications:

**Working Pressure** - 175 PSI

**Liquid Temperature** - 33° - 122 °F

**Metrological Characteristics** - Meets ANSI/AWWA Standards C715-18, C750-19, ISO 4064 rev. 2014

**Configuration** - Compact-Display built into unit

**Power Source** - 2 x D Size Lithium Thionyl Chloride batteries - 10 year warranted life time

**Environmental Protection** - NEMA 6P+ (IP68+), Ambient operation temp. -13 °F / +131 °F for the display

**Display Units** - Multi line 12 digit LCD (Programmable USG, Cubic Feet, Cubic Meters, Acre Feet for volume and GPM, Lt/s, or M<sup>3</sup>/h for rate of flow)

**Output** - Programmable Encoder, Pulse, 4-20, or Modbus; Optional dual output available in encoder + pulse

### Features & Benefits:

- Grade 316 Stainless Steel (2"-8") or Epoxy Coated Ductile Iron (10"-12") body design provides full compliance with ANSI/NSF 372 (AB1953 or NSF616).
- No moving parts. Minimal flow intrusion. Enduring accuracy.
- Easy to install Floating Flanges on 2"-8" and Integrated Flanges on 10"-12".
- No required strainer.
- Wide beam ultrasonic measurement sensors for high accuracy and reliable operation.
- Industry standard communication protocol for integration with most third-party AMR/AMI systems.
- Active leak, burst, reverse flow, empty pipe, measurement failure, and low battery. LCD also displays rate of flow and water temperature.
- Ruggedized NEMA 6P/IP-68+ construction; fully submersible design.
- Designed to meet standards for both North American and International C&I water meters.
- Optional flow measurements; Forward Only, Net Volume or Alternating Display (Forward and Reverse Consumption displayed separately).





OCTAVE<sup>®</sup> ULTRASONIC METER



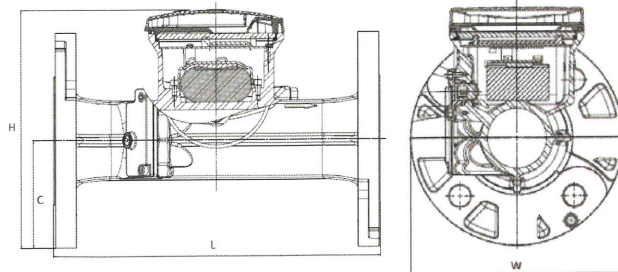
Performance Data & Dimensions

Octave Operating Characteristics and Dimensions	1.5"x13" (40 mm)	2"x10" (50 mm)	2"x15.25" (50 mm)	2"x17" (50 mm)
Safe Maximum Operating Capacity	250 GPM (57 m <sup>3</sup> /h)	250 GPM (57 m <sup>3</sup> /h)	250 GPM (57 m <sup>3</sup> /h)	250 GPM (57 m <sup>3</sup> /h)
Normal Operating Range (98.5% - 101.5% Accuracy)*	0.50 - 250 GPM (0.11 - 57 m <sup>3</sup> /h)	0.50 - 250 GPM (0.11 - 57 m <sup>3</sup> /h)	0.50 - 250 GPM (0.11 - 57 m <sup>3</sup> /h)	0.50 - 250 GPM (0.11 - 57 m <sup>3</sup> /h)
Extended Low Flow (95% - 105% Accuracy)	0.25 GPM (0.06 m <sup>3</sup> /h)	0.25 GPM (0.06 m <sup>3</sup> /h)	0.25 GPM (0.06 m <sup>3</sup> /h)	0.25 GPM (0.06 m <sup>3</sup> /h)
Length	13" (330 mm)	10" (250 mm)	15.25" (390 mm)	17" (432 mm)
Width	5-3/4" (146 mm)	5-3/4" (146 mm)	5-3/4" (146 mm)	5-3/4" (146 mm)
Height	6-3/4" (172 mm)	6-3/4" (172 mm)	6-3/4" (172 mm)	6-3/4" (172 mm)
Height from Center Pipe	2-1/8" (54 mm)	2-1/8" (54 mm)	2-1/8" (54 mm)	2-1/8" (54 mm)
Weight	20 lbs (9 kg)	15 lbs (7 kg)	22 lbs (10 kg)	24 lbs (11 kg)

\* In the water temperature of 45° to 85° F (7° to 30° C), meter consumption is accurately measured at:  
• +/- 1.5% in the Normal Operating Range  
• +/- 5% in the Extended Low Flow

Octave Operating Characteristics and Dimensions	3" (80 mm)	4" (100 mm)	6" (150 mm)	8" (200 mm)	10" (250 mm)	12" (300 mm)
Safe Maximum Operating Capacity	500 GPM (114 m <sup>3</sup> /h)	1,000 GPM (227 m <sup>3</sup> /h)	1,600 GPM (363 m <sup>3</sup> /h)	2,800 GPM (636 m <sup>3</sup> /h)	5,500 GPM (1,250 m <sup>3</sup> /h)	5,500 GPM (1,250 m <sup>3</sup> /h)
Normal Operating Range (98.5% - 101.5% Accuracy)*	1 - 500 GPM (0.23 - 114 m <sup>3</sup> /h)	1.5 - 1,000 GPM (0.34 - 227 m <sup>3</sup> /h)	3 - 1,600 GPM (0.68 - 363 m <sup>3</sup> /h)	5 - 2,800 GPM (1.5 - 636 m <sup>3</sup> /h)	14 - 5,500 GPM (3.2 - 1,250 m <sup>3</sup> /h)	14 - 5,500 GPM (3.2 - 1,250 m <sup>3</sup> /h)
Extended Low Flow (95% - 105% Accuracy)	0.5 GPM (0.11 m <sup>3</sup> /h)	0.75 GPM (0.17 m <sup>3</sup> /h)	2 GPM (0.45 m <sup>3</sup> /h)	4 GPM (0.9 m <sup>3</sup> /h)	8 GPM (1.8 m <sup>3</sup> /h)	8 GPM (1.8 m <sup>3</sup> /h)
Length	12" (305 mm)	14" (356 mm)	18" (457 mm)	20" (508 mm)	17-3/4" (451 mm)	19-3/4" (502 mm)
Width	7-1/2" (190 mm)	9" (229 mm)	11" (280 mm)	13-1/2" (343 mm)	16" (406 mm)	19-3/4" (502 mm)
Height	8-1/2" (216 mm)	9-7/8" (250 mm)	10-7/8" (276 mm)	12-7/8" (327 mm)	16-1/2" (419 mm)	19-3/4" (502 mm)
Height from Center Pipe	3-1/2" (90 mm)	4-1/2" (115 mm)	5-1/8" (130 mm)	6-3/8" (162 mm)	8" (203 mm)	9-7/8" (251 mm)
Weight	23 lbs (10.5 kg)	35 lbs (16 kg)	51 lbs (23 kg)	78 lbs (35 kg)	150 lbs (68 kg)	210 lbs (96 kg)

\* In the water temperature of 45° to 85° F (7° to 30° C), meter consumption is accurately measured at:  
• +/- 1.5% in the Normal Operating Range  
• +/- 5% in the Extended Low Flow



NOTE — For Performance charts please see Engineering Document - Octave | Version 10.17.

v1202.20F



## ■ ALLEGRO® CELLULAR



Allegro Cellular is Master Meter's cutting-edge AMI solution that harnesses the power of IoT to revolutionize water management. By leveraging existing cellular networks, we deliver a robust, secure, and cost-effective platform for collecting and transmitting meter data. Experience accelerated digital transformation without the complexities of infrastructure deployment.

Designed with unparalleled flexibility, Allegro Cellular can operate as a standalone Network-as-a-Service (NaaS) or seamlessly integrate with your existing AMI infrastructure. Our versatile endpoints are compatible with virtually any meter model, simplifying the transition to smart water management. Rapid deployment and immediate network connectivity provide the full spectrum of benefits associated with traditional fixed solutions, minus the hefty investment in network infrastructure.

### Features & Benefits:

- **No Infrastructure Required** - Allegro Cellular utilizes existing cellular networks to transmit meter consumption data, eliminating the need for the City to construct and maintain new communication infrastructure. This translates to significant cost savings, particularly for smaller systems or low-density rural environments looking to implement AMI quickly with minimal upfront investment. Yearly fees apply for cellular network usage.
- **Secure Data Transmission:** Utilizes secure cellular protocols (3GPP), VPN tunnels, and encrypted radio transmissions for complete data protection.
- **Reliable Network Coverage** - Leverages existing cellular network infrastructure with close to 100% coverage and uptime, providing highly reliable system operation and strong Quality of Service (QoS). Additionally, Cat-M LTE cellular networks boast nationwide coverage (98% of the US) with built-in redundancy for even greater reliability.
- **Robust Technology** - Cellular endpoints are not "new technology" as cellular technology has been a part of our everyday lives for decades. Cellular networks are built around incredibly robust, proven technology that used by thousands of different IoT applications across countless industries.





## ■ ALLEGRO® CELLULAR

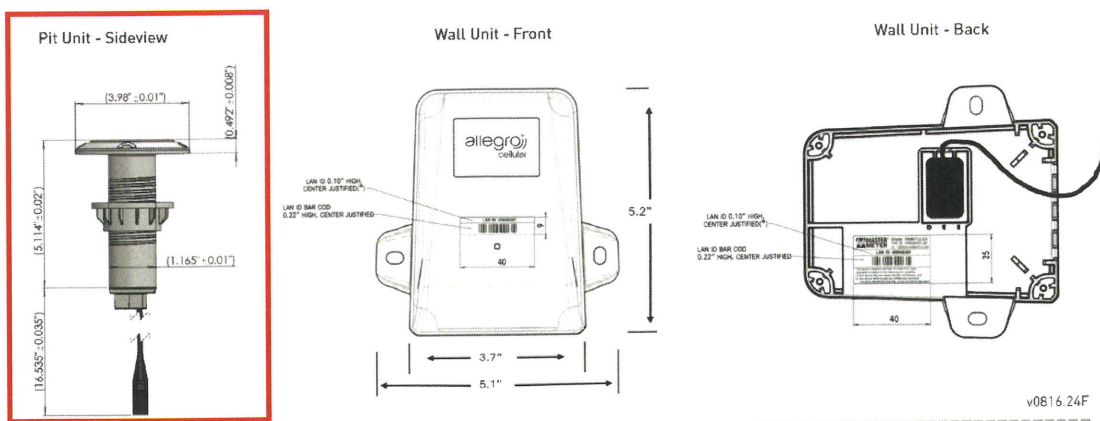


### Technical Specifications:

- **Technical Parameters** - With a radiated optimal transmitted power and a frequency range spanning from 2.402 GHz to 2.48 GHz, Allegro Cellular ensures optimal performance across various applications. Specifically engineered to operate seamlessly within AT&T Cat-M LTE Bands 12, 4, and 2, Allegro Cellular guarantees reliable connectivity and an exceptional user experience.
- **Housing** - Both pit and wall mount units utilize high-density ABS polymer enclosures, offering a weatherproof seal to protect internal electronics, power, and radio components from harsh or damp environments. Wall mounts include molded brackets for secure installation on masonry, wood, or any permanent building material.
- **Environmental Protection** - The wall-mount cellular endpoint is IP66-rated for non-submersible, outdoor installations. The pit-mount cellular endpoint is IP68-rated for installation and operation in a submersed environment, to provide protection against moisture intrusion and other environmental hazards common in a meter pit installation setting. Electronics are coated for added environmental protection.
- **Antenna** - Both the pit-mount and wall-mount cellular endpoints have an integrated antenna, 3.98" or less in diameter. The pit-mount antenna neck will fit within an industry-standard 1.75" hole in the meter lid with a locking mechanism underneath to secure the device.
- **Power Source** - The wired cellular endpoints are battery operated using a non-replaceable single C-cell Lithium Thionyl Chloride battery designed for a long operational life and is fully warranted for 20 years based on one (1) transmission per day. Please refer to Master Meter's Consolidated Warranty.
- **Intelligent Encoder Detection** - The cellular endpoint can automatically detect and communicate with industry-standard 3-wire encoded meters (manufactured within the past 10 years), requiring no additional programming. The unit will determine the appropriate protocol based on meter interrogation.\*
- **Data Logs and Alarms** - Allegro cellular endpoint offer advanced data logging capabilities, storing a maximum of 5,760 data points (60 days of 15-minute reads) and providing on-demand access to this data, including logged events for alarms like Cut Wire, Low Battery, Leak, CCW, and Burst, via MDM user command or compatible Bluetooth-enabled field applications.
- **Activation** - The cellular endpoint arrives in storage mode and activates during installation using a magnet. After activation, the cellular endpoint connects to the cellular network once a day (by default).

\* Approved or coded registers include Master Meter (Elinx, Acculinx, Sonata, Octave), Badger (HRE, ADE, E Series), Sensus (ECR II, ICE, IPeri, Electronic Register, Omnil, Hersey/Mueller Transistor, and 420 Solid State Registers.

### Dimensions

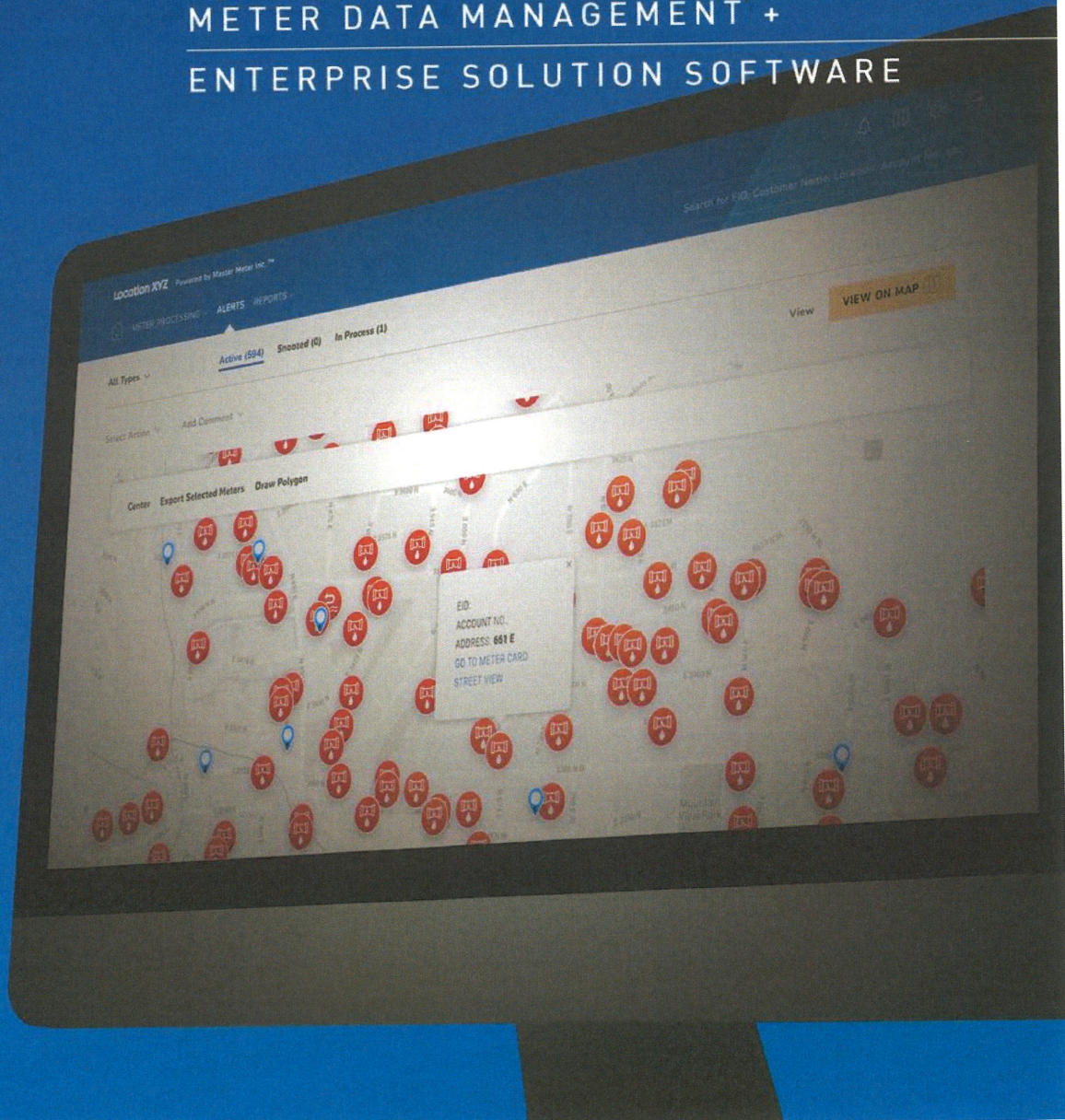






# harmony<sup>®</sup>encore<sup>™</sup>

## METER DATA MANAGEMENT + ENTERPRISE SOLUTION SOFTWARE







## METER DATA MANAGEMENT + ENTERPRISE SOLUTION SOFTWARE

Master Meter took our best-in-class Harmony MDM software and completely re-envisioned every aspect including its design, interoperability, user experience (UX), and speed to bring North American utilities an entirely new software experience to be more intuitive, natural, with key information that is a single click away. Harmony Encore makes sense of consumption information, empowers customer service, and simplifies meter operations that solve today's most pressing utility challenges and those of tomorrow.

The Harmony Encore Suite is an open platform designed to be universally compatible with every Mobile AMR or AMI Network on the market today. How the data arrives isn't important because Harmony Encore is system agnostic. Its integrated Google® Mapping Tools and advanced Meter Data Management (MDM) features provide an exceptional environment for managing, reporting, and analyzing advanced metering infrastructure and mobile drive-by AMR information. Leveraging the Microsoft® Azure™ cloud, Harmony Encore delivers super-fast performance bringing the Internet of Things (IoT) into any sized water utility.



\* To the best of our knowledge at the time of publishing.





## HARMONY ENCORE SOFTWARE

### METER DATA MANAGEMENT + ANALYTICS



### INFORMATION STUNNINGLY PRESENTED

Harmony Encore represents much more than a face lift to our award-winning Harmony MDM software. We've completely reimagined our software with faster performance, a refined, more intuitive user experience, and improved functionality. Harmony Encore is the direct result of ideas and input from collaboration with water utilities during early design. Data is made more useful through enhanced clarity and design simplicity. Easily review system-wide consumption and make sense of it with a wide array of chart and map views. Analyze consumption trends relative to precipitation with Harmony Encore's "Consumption Cluster" mapping tool for a graphical model of high-and-low consumption regions.

### CUSTOMIZABLE REPORTS

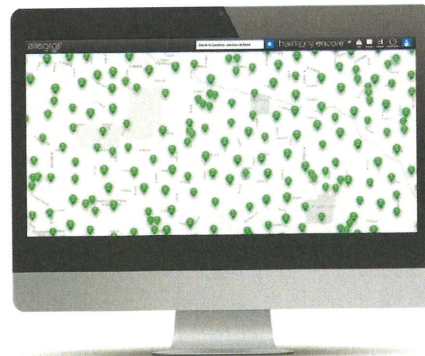
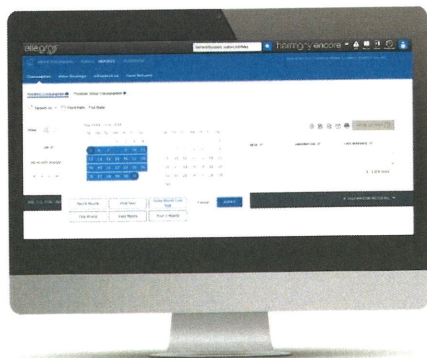
Leveraging the Microsoft® Azure™ cloud, Harmony Encore creates an exceptionally intuitive user experience for displaying and analyzing important data in a multitude of ways such as customizable reports, charts, graphs, and analyzing data from AMI and mobile data acquisition systems and providing insights. Harmony Encore also offers end-to-end data security and deep encryption to protect your customer's information and network access.

#### VISIBILITY SNAPSHOT

- Technology platform agnostic - Harmony Encore loves 3rd party data
- Simple, scalable HANDHELD → AMR → AMI technology migration
- Dynamic 2-way communication with endpoints and field assets
- Scalable, Microsoft® Azure™ Cloud hosted software supports any account size
- Cross platform SaaS works seamlessly with Windows and Apple environments
- Multiple GIS data layers including Google Streetview™ for quick service location inspection prior to truck roll
- Easily create District Metered Areas (DMA) with Harmony Encore's Polygon + Tool™ to analyze water loss and flow

### 24/7 MONITORING

Harmony Encore monitors both water loss and network performance in real time using Allegro Licensed AMI. Critical alerts such as leak, tamper or reverse flow trigger timely notifications to utility personnel. Leverage an AMI network's two-way communication capabilities using On-Demand Reads and Data Logging directly from within Harmony Encore. Quickly scroll and zoom to view RF performance and network health to preemptively manage issues before they become serious.





## HARMONY ENCORE GETS ALONG WITH EVERY METER DATA SOURCE

### HARMONY ENCORE'S FLEXIBLE DATA MANAGEMENT

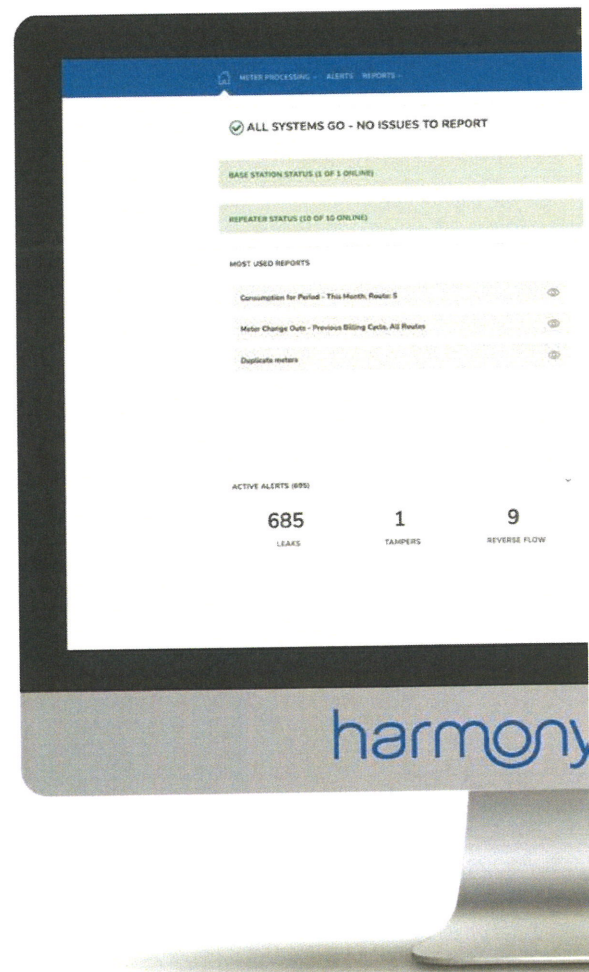
Harmony Encore simply loves data and it's incredibly accommodating regardless of which manufacturer's brand it comes from or the technology type used to provide it. Broad interoperability is a cornerstone in Harmony Encore's development. All Allegro Licensed, Allegro Cellular, and Allegro IoT Advanced Meter Infrastructure (AMI) technologies innately integrate with Harmony Encore - it's even backwards compatible with Master Meter's 3G Mobile AMR meter reading system and earlier hand-held data systems.

The GPS-based Mapping software means that vehicles and personnel are always connected for asset management and inventory controls. Leverage the Microsoft® Azure™ Cloud Platform for seamless data integration between Harmony Enterprise Platform and Harmony Mobile™.

allegro<sup>®</sup>  
licensed

allegro<sup>®</sup>  
cellular

allegro<sup>®</sup>  
iot

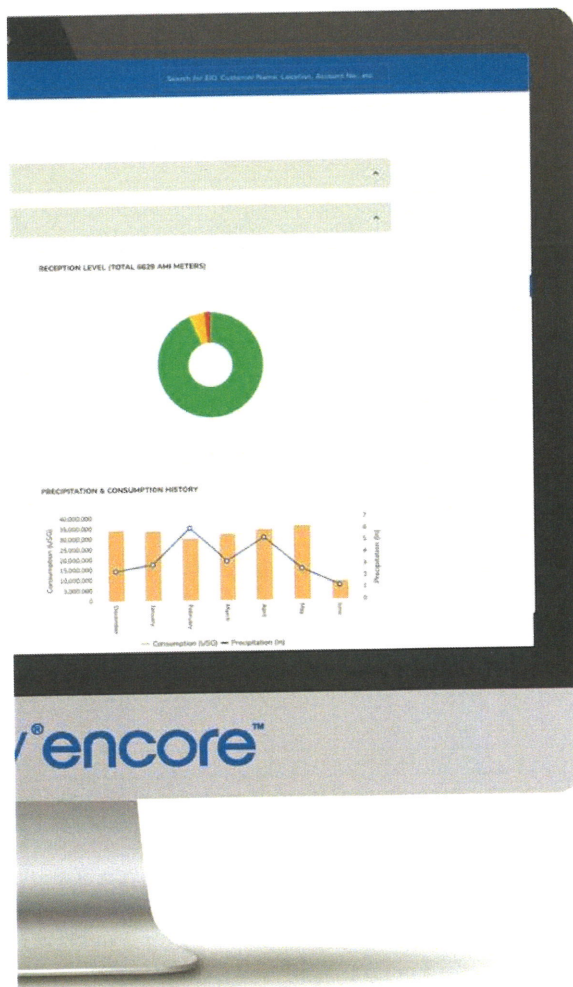






## REVENUE IMPACT ALERTS™

Leak Alerts and Flow Monitoring assist in reclaiming lost revenue from unaccounted for water and right-sizing of meters. In addition, notifications for theft and tamper are relayed back to the Cloud for analysis and action. Inactive meters are also identified and queued for inspection.



## ANY METER. ANYWHERE.

Harmony Encore's integrated API capabilities will eliminate 3rd party software incompatibility challenges and foster seamless integration and system future proofing. This new level of software flexibility makes possible the integration of nearly every meter data source for every meter. The utility receives a robust, multifaceted data platform that supports two-way communication and provides consumption analysis down to 15 minutes. Remote programming of Meters and Remote Firmware Upgrades are also available through Harmony Encore's Enterprise platform while using the Allegro AMI system.

### FEATURES FOCUS:

- MDM is agnostic towards the chosen meter and AMI tech
- Flexible, modular software is forward-ready to support future growth in functionality
- Secure offsite cloud-based data redundancy and remote storage
- Designed for utilities by utilities with continually enhanced features and modules
- Integration of external data: GIS, CIS and other applications via APIs



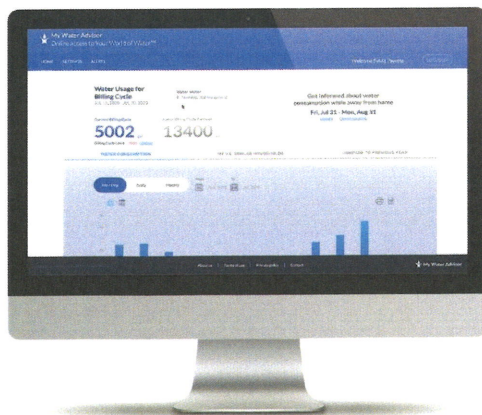
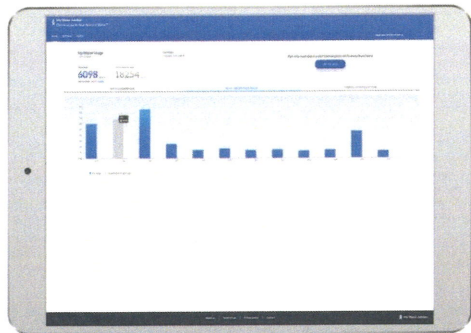
CUSTOMER ENGAGEMENT

## MY WATER ADVISOR™ CUSTOMER ENGAGEMENT SUITE

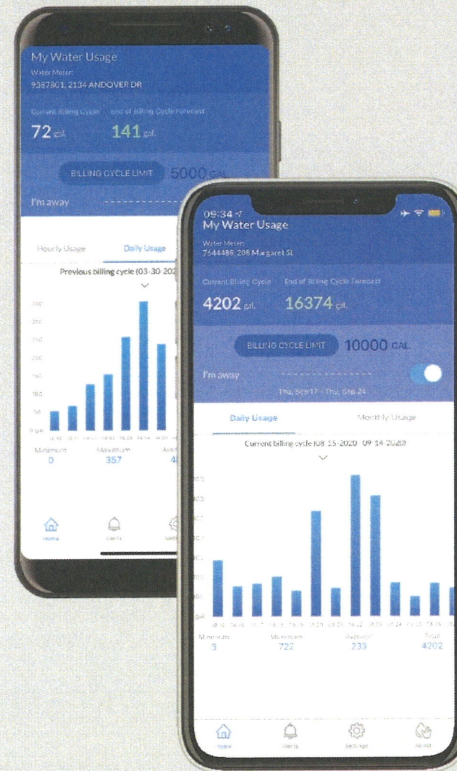


### CUSTOMER WEB PORTAL + SMART PHONE INTEGRATION

Place the power of Harmony Encore in the hands of your utility customer, with the My Water Advisor™ customer engagement web portal. The online application allows for convenient access to up-to-date hourly usage information. The chart view allows for daily, monthly, and yearly review of water usage and also shows a comparison to the user for real accountability. This full-featured water portal allows the user to set up alerts for on-premises leak detection, over-budget notifications, and gives the ability to set vacation periods to be notified of unusual, unauthorized usage while a customer is away.



Both iOS and Android can easily display My Water Advisor™. This water management software for the consumer puts the power of the online portal in the rate-payer's hands allowing for simple management of their usage via a smart phone.





**WARRANTY**



**Consolidated  
Measurement and  
Systems Products  
&  
Meter Accuracy  
Warranty**





## Multi-Jet 5/8" –2" and Positive Displacement 5/8" – 1"

### Scope of Integrity

This warranty applies exclusively to Master Meter Multi-jet 5/8", 3/4", 1", 1.5", and 2" meters and Positive Displacement 5/8", 3/4", and 1" meters when used for clean cold potable water (per applicable AWWA Standard) and installed in accordance with Master Meter published installation instructions in effect as of the date of Master Meter's shipment. This warranty applies exclusively to the original utility purchaser when product is purchased from either Master Meter or an authorized Master Meter distributor. Coverage in both terms of time and registered usage is from date of shipment by Master Meter.

### Materials and Workmanship

If used and installed as described above, Master Meter warrants all Multi-jet (5/8", 3/4", 1", 1.5" and 2") and Positive Displacement (5/8", 3/4", and 1") to be free from defects in materials and workmanship for a period of **24 months**.

### Case Integrity

If used and installed as described above, Master Meter, Inc. warrants that the low lead bronze cases of the 5/8", 3/4", 1", 1.5" and 2" Multi-Jet Meters and the 5/8", 3/4", and 1" Positive Displacement Meters will retain their structural integrity for a period of **25 years** from the date of Master Meter shipment.

*The Master Meter Positive Displacement meets or exceeds the AWWA's most recent revision of C700 Standard for Accuracy  
The Master Meter Multi-jet meets or exceeds the AWWA's most recent revision of C708 Standard for Accuracy.*

20 YEAR TOTAL ACCURACY GUARANTEE					
5 YEARS NEW		15 YEARS REPAIRED			
	5/8" x 3/4"	3/4"	1"	1.5"	2"
NEW Meter Accuracy	5 Years or 750,000 USG	5 Years or 750,000 USG	5 Years or 1,100,000 USG	5 Years or 1,600,000 USG	5 Years or 2,100,000 USG
REPAIRED Meter Accuracy	15 Years or 2,500,000 USG	15 Years or 2,500,000 USG	15 Years or 3,250,000 USG	15 Years or 5,600,000 USG	15 Years or 10,400,000 USG



## Ultrasonic Smart Measurement

### SONATA Ultrasonic for Residential Applications

#### Scope of Integrity

This warranty applies exclusively to Master Meter Sonata 5/8", 3/4" and 1" meters when used for clean cold potable water (per applicable AWWA standard) and installed in accordance with Master Meter published installation instructions in effect as of the date of Master Meter's shipment. This warranty applies exclusively to the original utility purchaser when product is purchased from either Master Meter or an authorized Master Meter distributor. Coverage in both terms of time and registered usage is from date of shipment by Master Meter.

#### Case Integrity


If used and installed as described above, Master Meter warrants all Sonata meters (5/8", 3/4" and 1") will retain their structural integrity for a **period of 20 years**.

#### Electronics

If used and installed as described above, Master Meter warrants all Sonata meters (5/8", 3/4" and 1") batteries, transducers, LCD, and communications output (encoder, or integrated 3G Radio) will be warranted for a **period of 20 years**. Master Meter will repair or replace the meter at no cost for the first ten (10) years and prorated in Years 11 – 20 as listed below.

#### Accuracy

Master Meter warrants all Sonata meters (5/8", 3/4" and 1") will meet or exceed +/- 1.5% accuracy in the Normal Operating Range of the meter, as defined in the latest revision of the Sonata Product Data Sheet for a **period of 20 years**. Master Meter will repair or replace the meter at no cost for the first ten (10) years and prorated in Years 11 – 20 as listed below.

																			
<b>Ultrasonic Warranty Schedule</b>																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Sonata 3G, Sonata Encoder										30%	30%	30%	30%	30%	40%	40%	40%	40%	40%
Octave																			

### OCTAVE Ultrasonic for Commercial and Industrial (C&I) Applications

#### Scope of Integrity

This warranty applies exclusively to Master Meter Octave 1.5" - 12" meters when used for clean cold potable water (per applicable AWWA standard) and installed in accordance with Master Meter published installation instructions in effect as of the date of Master Meter's shipment. This warranty applies exclusively to the original utility purchaser when product is purchased from either Master Meter or an authorized Master Meter distributor. Coverage in both terms of time and registered usage is from date of shipment by Master Meter.

#### Case Integrity

If used and installed as described above, Master Meter warrants all Octave meters (1.5" - 12") will retain their structural integrity for a **period of 10 years**.

#### Electronics

If used and installed as described above, Master Meter warrants all Octave meters (1.5" - 12") main board, batteries, transducers and LCD will be warranted for a **period of 10 years**. Externally attached communication output modules (encoder, pulse, 4-20, dual output and Modbus) will be warranted for a **period of 1 year**.

#### Accuracy

Master Meter warrants all Octave meters (1.5" - 12") will meet or exceed +/- 1.5% accuracy in the Normal Operating Range of the meter, as defined in the latest revision of the Octave Product Data Sheet for a **period of 10 years**.



## C&I Products – Turbines, Fire Hydrant Meters

### Turbine Meters and Fire Hydrant Meters

Master Meter 2" – 8" bronze body and 10" and 12" cast iron body **Turbine Meters** and **Fire Hydrant Meters** are warranted to perform to all applicable AWWA accuracy standards. Turbine and Fire Hydrant Meters are warranted be free from **material and workmanship** defects for **two years (24 months)** as of the date of Master Meter's shipment. Master Meter Turbine and Fire Hydrant Meters are warranted for accuracy for **one (1) year** from the date of Master Meter shipment.

## Allegro Infrastructure & Equipment Warranty

Base Station	One (1) year <sup>2</sup>
Repeater <sup>1</sup>	One (1) year <sup>2</sup>
Mobile Receiver	One (1) year

1. **Repeater.** This covers all versions of repeaters, including but not limited to: Standard Repeater, Photocell Repeater, and Solar Repeater

2. **Extended Warranty.** Additional warranty for Allegro Infrastructure Equipment can be purchased on a per unit basis. Master Meter's Extended Warranty must be purchased within 12 months of the original shipment date of equipment. Eligibility is based on continuous annual enrollment.

**Escalation for Services: five percent (5%).** Services. Invoices for Ongoing Fees and services shall be delivered annually or monthly, as applicable, in advance. Invoices for other services shall be delivered upon completion of the applicable service.

**ALL MASTER METER PRODUCTS NOT SPECIFICALLY IDENTIFIED ABOVE, OR ANY METER USED FOR NON-POTABLE WATER, ARE WARRANTED TO BE FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP FOR ONE (1) YEAR AS OF THE DATE OF MASTER METER'S SHIPMENT.**





## Register & Electronics – General Limited Warranty

## Years

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Direct Read Register

3G-DS AMR & External Transceivers

30%

30%

30%

30%

30%

40%

40%

40%

40%

40%

3G-DS Interpreter and Interpreter II Register & External Transceivers

30%

30%

30%

30%

30%

40%

40%

40%

40%

40%

Allegro™ Registers & External Transceivers

30%

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Interpreter Register for GridLinux™ & External Transceivers

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Interpreter Register for Itron® & External Transceivers

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eLinux Electronic Encoder Register

AccuLinux Encoder Register

ReadMaster™ Register

Prorated Replacement Cost

DISCOUNT PERCENTAGES WILL BE APPLIED AGAINST PUBLISHED LIST PRICES IN EFFECT AT THE TIME THE PRODUCT IS ACCEPTED BY MASTER METER UNDER WARRANTY CONDITIONS. THE WARRANTIES CONTAINED ABOVE HEREOF ARE THE ONLY WARRANTIES WITH RESPECT TO THE LISTED PRODUCTS, AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, BETWEEN THE PARTIES OR ARISING BY LAW. IN PARTICULAR, MASTER METER DISCLAIMS ANY AND ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THESE WARRANTIES SHALL BE VOID IN THE EVENT THAT MASTER METER DETERMINES THAT THE FAILURE OR DEFECT IN THE LISTED PRODUCT HAS ARISEN AS A RESULT OF THE PRODUCT BEING USED FOR ANY PURPOSE OTHER THAN THAT WHICH WAS INTENDED AND APPROPRIATE AT THE TIME OF MANUFACTURE INCLUDING USE IN A CONFIGURATION OTHER THAN AS RECOMMENDED BY MASTER METER OR AS A RESULT OF IMPROPER INSTALLATION OR MAINTENANCE.

I. Master Meter, Inc. ("Master Meter") warrants its products and parts to be free from defects in material and workmanship for **one (1) year** from the date of Master Meter's shipment, if not otherwise specified or as set forth in this document.

II. **Allegro™** Integrated registers and **Allegro™ External Transceiver Modules** are warranted to be free from defects in materials and workmanship for **Ten (10) years** from date of shipment by Master Meter and at a prorated replacement cost of current list price during the following **Ten (10) years** based on the discounted rate value listing above (configured to the original factory settings of twice daily transmissions of 12 hourly interval reads, allowing for no more than 2 customer requested firmware upgrades for the life of the product, and no more than 4 data logs per year.) All other Allegro System Components are warranted to be free from defects in materials and workmanship for **One (1) year** from date of shipment by Master Meter.

III. **Allegro™** Cellular AMI Endpoints are warranted to be free from defects in materials and workmanship for **Ten (10) years** from date of shipment by Master Meter, and at a prorated replacement cost of current list price during the following **Ten (10) years** based on the discounted rate value listing above (configured to the original factory

settings). All other Allegro Cellular System Components are warranted to be free from defects in materials and workmanship for **One (1) year** from date of shipment by Master Meter.

Allegro Cellular Network Availability:

In the event that the Communication Network ("Network") utilized by Customer's Allegro Cellular AMI Endpoints ("Endpoints") is explicitly and publicly discontinued by the Network Operator, rendering the Endpoints unusable, Master Meter will supply Customer with replacement Endpoints supported by the most current readily available full-scale technology at no charge to the Customer during years one (1) through ten (10) of the Endpoints written warranty. Any Endpoint replaced during years one (1) through ten (10) will carry the balance of its original warranty based on shipment date. Any Endpoint in the pro-rated portion of the written warranty will be replaced according to the pro-rated cost schedule included in this Warranty. Customer shall be solely responsible for all costs, both direct and indirect, associated with the replacement of such Endpoints.

IV. **DIALOG 3G™ DS, DIALOG 3G™ DS Interpreter / Interpreter II registers, and DIALOG 3G™ External Transceiver Modules** are

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Effective Date 08.12.2021

\* This warranty has been prepared for Les Springs Home Owner Association





warranted to be free from defects in materials and workmanship for **Ten (10) years** from date of shipment by Master Meter and at a prorated replacement cost of current list price during the following **Ten (10) years** based on the discounted rate value listing above (configured to the original factory settings with a typical usage of no more than 4 data logs per year.) All other DIALOG 3G DS System components and features are warranted to be free from defects in materials and workmanship for **One (1) year** from date of shipment by Master Meter.

V. **Interpreter™ Register with GridLinX™ Protocol, Interpreter™ Register with Itron® (formerly Silver Spring Networks) Protocol**, and all **GridLinX or Itron External Transceiver Modules** operating on the GridLinX and Itron Network are warranted to be free from defects in materials and workmanship for **Ten (10) years** from date of shipment by Master Meter and at a prorated replacement cost of current list price during the following **Ten (10) years** based on the discounted rate value listing above (configured to the original factory settings.) All other System Components for Registers based on GridLinX and Itron Network are warranted to be free from defects in materials and workmanship for **One (1) year** from date of shipment by Master Meter.

VI. **AccuLinX™, eLinX™, and DIRECT READ** registers are warranted to be free from material and workmanship defects for **ten (10) years**.

and **DIRECT READ** registers for **fifteen (15) years**, from date of Master Meter shipment. All other Master Meter products not specifically identified above are warranted to be free of defects in materials and workmanship for **one (1) year** from date of Master Meter shipment.

VII. **ReadMaster™** registers are warranted to be free from material and workmanship defects for **five (5) years** from date of shipment by Master Meter (configured to the original factory settings four (4) transmissions daily). All other ReadMaster system components not specifically identified above are warranted to be free of defects in materials and workmanship for **one (1) year** from date of shipment by Master Meter.

VIII. **DIALOG 3G™ Gas Modules and DIALOG 3G™ Electric Modules** are warranted to be free from defects in material and workmanship for **one (1) year** from date of shipment by Master Meter.

IX. **RETURNS:** Master Meter's obligation, and Customer's exclusive remedy, under this Limited Warranty is, at Master Meter's option, to repair or replace the product, provided the Customer (a) returns the product to the location designated by Master Meter within the warranty period; and (b) prepays the freight costs to such location.

## Warranty & Limits of Liability

This warranty does not apply to meters or registers determined by Master Meter, at its sole discretion, to have been damaged by aggressive water conditions, foreign matter in water, vandalism, negligence, installation not in accordance with Master Meter, Inc. installation instructions, misapplication or other use not as described on this document, acts of God or other conditions beyond the control of Master Meter, Inc. This warranty is null and void if it is determined by Master Meter that a meter is altered by the addition of any register not manufactured by or on behalf of Master Meter, Inc. for its specific model and size. If a meter is claimed to breach the accuracy guarantees as stated herein, the customer shall submit a certified copy of the test results at the time the meter is returned to Master Meter, Inc. The accuracy warranty shall be void if an examination of the customer's water system shows poor water quality causing an unusually adverse effect on metering equipment.

Master Meter's liability under this warranty is expressly limited to repair or replacement of the product, or similar product and/or component, at Master Meter's sole discretion, at Master Meter's option. The repaired or replacement product will maintain the original meter's warranty based on the original purchase date. The customer must pay for freight cost of the returned product or products to the factory or service center designated by Master Meter. The product returned becomes the property of Master Meter.

If product is not determined to be under warranty, customer will pay freight for return of the original product. If the product is determined to be under warranty, the product will be repaired and returned to the customer, replaced, or Master Meter will determine a suitable substitute (at Master Meter's sole option), with freight paid by Master Meter. The original product returned becomes the property of Master Meter. Master Meter shall not be liable for special, incidental, in-direct or consequential damages of any kind.

The return of products for warranty claims must follow Master Meter's Returned Materials Authorization (RMA) procedures. All Master Meter Products returned must be affixed with an approved Return Authorization form. For all returns, Master Meter reserves the right to request meter reading records by serial number to validate warranty claims.

For products that have become discontinued or obsolete ("Obsolete Product"), Master Meter may, at its discretion, replace such Obsolete Product with a different product model ("Replacement Product"), provided that the Replacement Product has substantially similar features as the Obsolete Product.

Any description of product, whether in writing or made orally by Master Meter, Inc. or its agents, specifications, samples, literature, models, bulletins, drawings, diagrams, data sheets or similar materials used in connection with any customer's order are for the sole purpose of identifying product and shall not be construed as an express or implied warranty. Any suggestions by Master Meter, Inc. or its agents regarding use, application, or suitability of product shall not be construed as an express or implied warranty unless confirmed to be such in writing by Master Meter, Inc.

If any provision hereof, partly or completely, shall be held invalid or unenforceable, such invalidity shall not affect any other provision or portion hereof and these terms shall be construed as if such invalid or unenforceable provision or portion thereof had never existed.

**THE FOREGOING EXPRESS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OR GUARANTEES WHATSOEVER, WHETHER EXPRESSED OR IMPLIED (EXCEPT FOR WARRANTY OF TITLE) INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER'S EXCLUSIVE REMEDY AND MASTER METER, INC. AND ITS BUSINESS PARTNERS' SOLE LIABILITY ON ANY CLAIM, WHETHER IN BIAS (INCLUDING STRICT LIABILITY), NEGLIGENCE, CONTRACT, WARRANTY OR OTHERWISE, FOR ANY METER OR REGISTER WHICH FAILS TO MEET THE TERMS OF THE WARRANTY STATED IN THIS DOCUMENT, SHALL BE LIMITED TO REPAIR OR REPLACEMENT AS DESCRIBED ABOVE.**

**Disclaimer. EXCEPT FOR THE WARRANTY SET FORTH IN THIS AGREEMENT, SELLER MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE GOODS, INCLUDING ANY (A) WARRANTY OF MERCHANTABILITY; OR (B) WARRANTY OF FITNESS FOR A**

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PARTICULAR PURPOSE; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.

No Consequential or Indirect Damages. EXCEPT AS OTHERWISE PROVIDED, IN NO EVENT SHALL MASTER METER OR ANY OF ITS BUSINESS PARTNERS BE LIABLE TO THE CUSTOMER OR ANY THIRD PARTY FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL OR PUNITIVE DAMAGES, INCLUDING ANY DAMAGES FOR BUSINESS INTERRUPTION, LOSS OF USE, DATA, REVENUE OR PROFIT, COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, DOWNTIME COSTS, WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE AND WHETHER OR NOT THE MASTER METER WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Maximum Liability. EXCEPT AS OTHERWISE PROVIDED IN NO EVENT SHALL MASTER METER'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE TOTAL AMOUNT PAID TO THE SELLER PURSUANT TO THIS AGREEMENT. THE FOREGOING LIMITATIONS SHALL APPLY EVEN IF THE CUSTOMER'S REMEDIES UNDER THIS AGREEMENT FAIL OF THEIR ESSENTIAL PURPOSE.

Sole Remedy. THIS LIMITATION OF LIABILITY SETS FORTH MASTER METER'S SOLE LIABILITY AND ENTIRE OBLIGATION AND THE CUSTOMER'S EXCLUSIVE REMEDY FOR ANY ACTION THAT IS BROUGHT AGAINST MASTER METER.

Governing Law and Venue. ALL DISPUTES ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL BE GOVERNED BY TEXAS LAW, EXCLUDING ITS CHOICE OF LAW RULES, WITH JURISDICTION AND VENUE IN THE STATE OR FEDERAL COURTS OF TARRANT COUNTY, TEXAS. THE PARTIES CONSENT TO THE PERSONAL JURISDICTION OF, AND VENUE IN, SUCH COURTS AND AGREE THAT NO SUCH COURT IS AN INCONVENIENT FORUM.

Master Meter, Inc. The Science of Precise Measurement™  
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## **Town of Jerome**

### **Advanced Metering Infrastructure (AMI) System – Implementation Project**

**Created by:**

Phoenix Water Solutions  
1606 E University Dr Suite 109  
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(602) 445-3943



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# Phoenix Water Solutions RFP Installation Overview

## **Town of Jerome – Advanced Metering Infrastructure (AMI) System Implementation Project**

Phoenix Water Solutions (PWS) has prepared this installation proposal in support of the Town of Jerome's Advanced Metering Infrastructure (AMI) System Implementation Project.

Our team is prepared to perform all installations and related work to successfully replace 332 existing water meters with new AMI-enabled meters, as outlined in the Town's RFP. The scope includes pit box excavation, meter removal, installation, endpoint mounting, programming, all data points captured in the field and provided to the TOJ.

We recognize the unique conditions of Jerome's hillside topography and aging infrastructure and bring to this project a highly qualified installation workforce with proven experience in municipal AMI deployments across Arizona and California.

## **Field Capabilities**


Our experienced field technicians are proficient in residential and commercial meter installation and have been specifically prepared for the scope and conditions of the TOJ meter upgrade project. Core capabilities include:

- Installation of ¾" through 4" water meters
- Debris cleanout and pit box restoration
- Endpoint and antenna integration (through lid or bottom mount)
- Meter programming
- Meter box adjustments for accessibility
- Plumbing reconnections and adjustments (e.g., valve access, service line positioning)
- Real-time field documentation, including GPS location, time stamps, and before/after photos

All installations are completed in accordance with manufacturer specifications, TOJ technical standards, and internal quality control protocols. PWS will support in ensuring full data integrity and compliance for project reporting, inspections, and federal funding guidelines (including WIFA funded requirements).

## **Site Familiarity & Pre-Bid Understanding**

Phoenix Water Solutions (PWS) has thoroughly reviewed the Town of Jerome Advanced Metering Infrastructure (AMI) System RFP, including all technical specifications, and compliance requirements.



Our team has extensive experience performing meter upgrade projects in rural communities with similar characteristics—rocky terrain, historic infrastructure, and varying conditions of service lines. Based on our precon assessment with Town of Jerome field staff we understand and anticipate the following field conditions throughout the project duration:

- Varying types of meter boxes and sizes
- Legacy service line materials
- Metered locations vary throughout the town with pit boxes on hillsides and areas requiring coordinated access
- Excavation and restoration requirements across certain residential & commercial service locations

We are fully prepared to adapt in the field and escalate concerns as needed through the proper communication channels defined by the Town of Jerome.

#### **Full-Scope Installation Delivery**

Phoenix Water Solutions delivers a turnkey field operation for this scope.

- No subcontracted labor – all crews are in-house & trained with varying years of experience
- Designated field supervisors are assigned to oversee all activities
- Quality Assurance is built into our bid and install process
- Our backend administrative team tracks production, submits reporting, and assists in daily recordkeeping

We are fully equipped to support Change Order procedures if needed for additional repairs or work outside the defined bid items when pre-approved by the Town of Jerome.

## **Service Agency & Service Agents**

As a fully registered and licensed contractor in the state of Arizona, Phoenix Water Solutions is uniquely positioned to deliver high-quality, fully compliant utility infrastructure services for municipal, district, and public agency clients across the state. Our qualifications, certifications, and in-house capabilities not only meet—but exceed—the expectations set forth for public works contractors in Arizona.

### **Regulatory Compliance & Licensing**

PWS holds a valid Arizona Registrar of Contractors license for CR-37 (Plumbing) under license number ROC #339119. We are fully registered with the Arizona Corporation Commission and maintain active status with all required state and municipal licensing authorities.

PWS is a Registered Service Agency with the Arizona Department of Weights and Measures (AZDWM), ensuring that all metering services we perform—including removal, installation, calibration, and testing—are legally authorized, traceable, and compliant with Arizona state standards. These credentials reflect our unwavering commitment to regulatory adherence, technical accuracy, and public accountability.

### **Certified Service Agents & Metering Expertise**

PWS employs certified service agents and technicians trained in the installation, replacement, and maintenance of water, BTU, and electric meters. Our staff are familiar with a wide variety of AMI and AMR technologies, endpoint integrations, and service line plumbing repairs.

Our technicians undergo routine field and safety training to ensure alignment with:

- ADOSH (Arizona Division of Occupational Safety and Health) safety and confined space standards
- Equipment-specific manufacturer specifications
- Local utility and water agency protocols, GIS documentation, and meter data formats

### **In-House Workforce Model**

PWS performs all installations using in-house, full-time employees—not subcontractors. This model allows for:

- Greater control over quality, schedule, and documentation



- Professionalism and consistency across job sites
- Streamlined issue resolution and reduced delays

Our crews are uniformed, background-checked, and trained to uphold strict jobsite standards with minimal disruption to customers.

### **Integrated Turnkey Delivery**

With a deep understanding of metering infrastructure, PWS offers a turnkey service model that includes:

- Project mobilization and workforce deployment
- Field data capture (serial numbers, photos, GPS, and field notes)
- Component replacement (boxes, lids, valves)
- Quality control and warranty-backed labor
- Digital transmittals and reporting in agency-requested formats

Whether performing 500 meter retrofits or replacing tens of thousands of meters under an AMI upgrade, PWS delivers clean, consistent, and fully documented work across all phases of the project.

### **Trusted by Utilities & Districts Across Arizona**

With a focus on quality, reliability, and long-term infrastructure outcomes, PWS has become a trusted partner for metering projects statewide. Our licensing, internal systems, and field-tested workforce make us a strong fit for any public agency or utility seeking a contractor who understands the regulatory, logistical, and technical demands of utility service installation work.



# Process to Complete Work

## Proposed Work Plan and Approach

Phoenix Water Solutions (PWS) will provide professional services for the replacement of all water meters and transmitters in support of the Town of Jerome AMI System Upgrade Project.

This involves the replacement and activation of approximately 332 existing water meters ranging in size from  $\frac{5}{8}$ "x $\frac{3}{4}$ " to 4".

PWS will carry out all field installation activities well within the 180 calendar days required from Notice to Proceed (NTP), adhering to typical project working hours of 7:00 AM to 5:00 PM, Monday through Friday, excluding Town-observed & Federal holidays. Our team will work directly with the selected AMI vendor to ensure accurate installation, data verification, and seamless transition of data into the Town's Caselle billing software.

## Timeline, Rate of Production & Staffing Plan

Based on the Town of Jerome's system size, variances in meter locations, and project requirements, PWS anticipates the following staffing plan & installation timeline:

### Deployment Timeline

- Total Working Days: ~15-25
- Total Calendar Days: ~30-45 days from Notice to Proceed
- Estimated Daily Output: 11–16 meters installed per technician per day (depending on access, topography, and meter size)

This timeline accounts for the total of 332 meter replacements, with additional time allotted for cleanouts, service line repairs, or extended scopes of work.

## Estimated Production Rates

- Production will vary slightly based on terrain, meter box accessibility, and property types (residential vs. commercial)
- Installations will be executed in logical route phases to minimize disruption, ensure efficient crew movement, and support coordination with the Town's staff.
- Each meter will be activated and verified for data transmission prior to completion.

## Project Completion Accounts For

- Locating and access due to Jerome's hillside topography
- Cleanout and/or pit box adjustments for accessibility to valve and meter unions
- Restoration of ground surfaces
- GPS and photo documentation for each data point collected
- Final QC checks and weekly close out reviews coordinated with AMI Vendor and TOJ

All records will be compiled into daily and weekly progress reports shared with project manager. PWS will also support final punch list completion and assist with warranty documentation handoff at project close-out.

### **Deployment Team**

**Project Manager** – Oversees overall planning, scheduling, and reporting of field activities. The Project Manager ensures proper documentation, monitors productivity metrics, coordinates any field change requests, and maintains close communication with TOJ and the AMI contractors' management team to ensure compliance throughout our execution.

**Field Supervisor** – Provides daily leadership in the field and technical oversight, ensuring safety procedures, meter install specs, and data capture standards are met. The supervisor verifies proper meter installation, endpoint activation, and documentation, while coordinating any issue resolution with the Town of Jerome.

**2–3 Field Technicians per Crew** – Responsible for meter installations, endpoint activation, and data collected for each location. Crews are trained to handle minor plumbing repairs, cleanouts, and site restoration. Technicians are trained in confined-space safety and public interaction to ensure minimal disruption to residents and businesses.

**Support Technicians (as needed)** – Deployed to assist with specialized field tasks, rework, or punch list completion, and to maintain schedule adherence.

PWS's deployment model includes flexibility for scaling manpower to match project pacing and to accommodate factors such as terrain challenges, weather, or unforeseen conditions—ensuring consistent productivity and quality-driven outcomes from start to finish.

### **Installation Protocol**

1. Pre-Inspection & Documentation
  - Conduct a visual inspection of the meter box and surrounding infrastructure
  - Photograph and log conditions of piping, valves, fittings, boxes, and meter reads
  - Note any discrepancies or variances at each location
2. Meter Changeout
  - Remove existing meter and return to Town per requirements
  - Install new meter level and aligned
  - Mount endpoint and verify data transmission
  - Backfill and clean site; confirm box is flush with grade
3. Post-Installation Verification
  - Record and submit the following at each location:
    - Address
    - Old and new serial numbers
    - Old final meter read
    - New IMR

- Date/time of installation
- Arrival and departure photos
- Valve position

#### 4. RTU & Damage Handling

- Document and report inaccessible or unsafe sites
- Notify Town of Jerome of any property damage and coordinate repairs immediately

All removed materials will be returned to Town of Jerome at the designated location. Any supplemental scopes such as curb stop replacement, pit box resets, storage & staging will be handled by PWS on a case-by-case basis and priced separately, as they are excluded from our base bid. These items will be coordinated directly with the Town of Jerome well in advance of their occurrence.

### Quality Control & Project Oversight

PWS integrates quality assurance into every stage of field execution to ensure full compliance with contract standards and expectations:

- **Daily Supervisor Checks:** Field supervisors will validate install quality, safety protocols, and documentation completion
- **Weekly QA Reviews:** Completed installs will be audited for compliance and data accuracy
- **Photo Validation:** All meter reads and endpoint/transmitter pairings must be verified against digital photos
- **Issue Escalation & Rework:** Any site failing inspection or data transfer will be flagged for rework
- **Endpoint Verification:** Units that fail to transmit properly to the AMI network will be reprogrammed, repositioned, or replaced as directed

### Work Order Management & Data Handling

Phoenix Water Solutions (PWS) utilizes a cloud-based digital system to collect, organize, and submit all installation data in real time. This ensures compliance with the Town of Jerome's documentation standards while supporting efficient communication, progress tracking, and project oversight.

#### Key capabilities include:

- Daily uploads of installation data from the field
- Dashboards showing installation status, exceptions, and photos
- Data export in approved formats for import into Caselle
- Long-term storage of installation data (photos, GPS, meter reads) for at least 12 months post-completion
- Meter and endpoint installation logs
- Before-and-after photo documentation
- GPS coordinates and timestamps
- Serial numbers and field notes linked to each service address



- Endpoint signal verification reports
- Compatibility with the AMI vendor's digital record-keeping system and the Town's Caselle billing software for seamless work order processing and audit tracking

This digital documentation process ensures accuracy, transparency, and efficiency from field installation to project closeout, allowing the Town of Jerome to monitor installation performance in real time.

### **Exception & Damage Reporting**

All inaccessible or obstructed sites, as well as discovered damaged or corroded valves, meter boxes, or service lines, will be thoroughly documented with photographic evidence and promptly reported to Town representatives.

PWS will not independently perform corrective actions outside the approved scope without direction from the Town.

This process protects the Town's liability and ensures alignment with established procedures.

All reported exceptions will include:

- Description of issue and location
- Supporting photo documentation
- GPS coordinates and timestamp
- Recommended next steps or required approvals

### **Inventory Tracking & Management**

PWS will maintain detailed inventory control of all supplied materials (meters, gaskets, washers, valves, lids, boxes, and related components) from the time of checkout at the designated staging area until successful installation or approved return.

Daily inventory documentation will include:

- Detailed logs of materials used, returned, or remaining in possession
- Notification and return of damaged, defective, or excess materials
- Daily reconciliation reports submitted to support transparency and accuracy
- Secure storage and tracking of all provided materials to prevent loss or misallocation

### **Warranty & Customer Satisfaction**

All workmanship performed by Phoenix Water Solutions (PWS) is backed by a 12-month warranty from the date of installation.

Covered at no charge:

- Installation related leaks, data transmission issues, or faulty fittings/gaskets

Response time:

- All end-user or Town-reported concerns will be acknowledged same business day
- A field technician will be dispatched within 24 hours to assess and resolve the issue

Escalations:

- Issues beyond the defined scope will be elevated through the project manager and coordinated with the Town under standard utility procedures

Documentation:

- All warranty visits will be logged with photographs, corrective actions, and confirmation of completion for recordkeeping

Post-warranty support:

- PWS remains available to assist with ongoing service or maintenance needs beyond the warranty period

# Communication & Management Process

As a key subcontractor, PWS will align its communication strategy with all Town of Jerome requirements regarding documentation, scheduling, reporting, and field visibility.

Our approach ensures clear, timely, and accurate communication; seamless coordination with project management team; and real-time visibility into field progress and installation quality. This plan defines our strategies for documentation, meetings, and reporting to maintain a strong working relationship and keep the project on schedule.

## Customizable Dashboards

### Pre-Construction Coordination

- PWS will participate in the pre-construction meeting with AMI vendor and the Town of Jerome to review project requirements, safety expectations, and coordination protocols.
- All required submittals, safety plans, and work schedules will be submitted for review and approval prior to field mobilization.
- Property access coordination will be managed in collaboration with the Town, ensuring all service locations are verified before installation begins.

### Daily Updates

- Number of meters installed (by size and location)
- RTUs, communication issues, or exceptions encountered (with supporting photos)
- Site-specific conditions affecting installation or scheduling
- Inventory usage and field material status
- Any safety or customer-related incidents encountered in the field

### Weekly Reporting

- Installation summary and progress status
- RTU and exception reports
- QA/QC verification records
- Inventory reconciliation and material usage logs
- Summary of completed vs. pending service locations

### Progress Meetings

- PWS will attend weekly progress meetings with the Town of Jerome to review ongoing activities and resolve open issues.



- Discussion topics will include:
  - Weekly lookahead schedules
  - Site-specific challenges or access limitations
  - Material tracking and inventory review
  - QC review and resolution of flagged items
  - Coordination of public notifications or traffic control

### **Daily Check-Ins**

PWS On-Site Supervisors will conduct daily field briefings with the installation crews to confirm:

- Installation goals and planned routes for the day
- Utility or customer-related concerns raised by field staff
- Updates on defective legacy materials at service locations
- Adjustments to crew assignments or schedules as needed

### **Customer & Property Owner Notification**

Phoenix Water Solutions (PWS) understands that property owner notifications—such as door hangers, call centers, or access permission forms—are not currently part of the base installation scope. However, should the Town of Jerome require this support, PWS is fully capable of assisting with notification efforts upon request and will price these services accordingly.

This includes, but is not limited to:

- Distribution of door hangers prior to and after meter replacement
- Delivery of 48-hour advance notices to affected residents and businesses
- Collection of signed access permission forms for meters located outside public rights-of-way

All notices and templates will be coordinated with and approved by the Town of Jerome before use if this responsibility is assigned to PWS during the course of the project.


### **Adherence to Project Standards & Practices**

- **Materials Handling:**

All materials provided by the Town of Jerome will be handled and installed per manufacturer specifications and Town requirements. Any discrepancies, damage, or shortages will be immediately documented and reported for direction.

- **Professional Execution:**

All installation work will be performed efficiently, safely, and respectfully, with full attention to



site preservation and community impact. Ground disturbances, meter box adjustments, and restoration areas will be restored to their original or improved condition, maintaining property appearance and public safety.

### **Tailored Metrics & Delivery**

- If additional data fields or reporting formats are required by the Town of Jerome, PWS can promptly adjust field documentation and reporting templates to meet specific project needs.
- PWS's digital workflow system allows for on-demand customization of installation logs, photo reports, and progress dashboards for greater transparency.

### **Client-Specific Goals**

- Regular communication ensures that PWS's field performance, documentation standards, and reporting schedules stay fully aligned with project oversight and the Town's operational priorities.
- Adjustments to production pacing, data formatting, or field scheduling can be made to address unique site conditions or Town preferences.

## Installation Pricing

Town of Jerome  
Advanced Metering Infrastructure (AMI) System  
– Implementation Project



**Phoenix Water Solutions, LLC**  
**1606 E University Dr Ste 109**  
**Phoenix, AZ 85034**  
**(602) 962-9348**

**Service Address**  
Town of Jerome  
600 Clark St  
Jerome, Arizona 86331

### Description

#### 3/4" Meter & Endpoint Installation

Pre- and post-install visual inspection of meter box, piping, and fittings  
Removal of existing meter and return to Town-designated location  
Installation of new Endpoint & meter, level and aligned per spec  
Documentation of:  
Old meter read and serial number  
Endpoint/transmitter/MTU number  
New meter serial number and install timestamp  
Address, GPS, & Route  
Photo documentation of install and surrounding condition  
Site cleanup, backfill, and restoration to pre-construction condition

#### 1" Meter & Endpoint Installation

Pre- and post-install visual inspection of meter box, piping, and fittings  
Removal of existing meter and return to Town-designated location  
Installation of new Endpoint & AMI meter, level and aligned per spec  
Documentation of:  
Old meter read and serial number  
Endpoint/transmitter/MTU number  
New meter serial number and install timestamp  
Address, GPS, & Route  
Photo documentation of install and surrounding condition  
Site cleanup, backfill, and restoration to pre-construction condition



### 1.5" Meter & Endpoint Installation

Pre- and post-install visual inspection of meter box, piping, and fittings

Removal of existing meter and return to Town-designated location

Installation of new Endpoint & AMI meter, level and aligned per spec

Documentation of:

Old meter read and serial number

Endpoint/transmitter/MTU number

New meter serial number and install timestamp

Address, GPS, & Route

Photo documentation of install and surrounding condition

Site cleanup, backfill, and restoration to pre-construction condition

Flange Kits, Nuts, Bolts, etc. excluded

### 2" Meter & Endpoint Installation

Pre- and post-install visual inspection of meter box, piping, and fittings

Removal of existing meter and return to Town-designated location

Installation of new Endpoint & AMI meter, level and aligned per spec

Documentation of:

Old meter read and serial number

Endpoint/transmitter/MTU number

New meter serial number and install timestamp

Address, GPS, & Route

Photo documentation of install and surrounding condition

Site cleanup, backfill, and restoration to pre-construction condition

Flange Kits, Nuts, Bolts, etc. excluded

### 4" Meter & Endpoint Installation

Pre- and post-install visual inspection of meter box, piping, and fittings

Removal of existing meter and return to Town-designated location

Installation of new Endpoint & AMI meter, level and aligned per spec

Documentation of:

Old meter read and serial number

Endpoint/transmitter/MTU number

New meter serial number and install timestamp

Address, GPS, & Route

Photo documentation of install and surrounding condition

Site cleanup, backfill, and restoration to pre-construction condition

Flange Kits, Nuts, Bolts, etc. excluded

# Appendix A – Installation Scope Summary

## Phoenix Water Solutions | Town of Jerome AMI Project

Phoenix Water Solutions has been actively engaged with the Town of Jerome project since early 2025, conducting a preliminary field review and coordination with the Town's water operator to assess existing conditions and meter configurations throughout the system. This early involvement has allowed PWS to develop a strong understanding of the Town's infrastructure, terrain, and site access considerations, ensuring that our installation pricing and schedule are grounded in real field data rather than assumptions.

Our team has completed thousands of meter retrofits and replacements for municipalities, utilities, and national REITs. PWS specializes in turnkey meter installation and deployment. Our team has worked with all major metering models and capable of installing and commissioning all major AMI platforms

### Primary Scope of Work

- Removal of existing meters at designated service locations.
- Installation and alignment of new AMI meters and endpoints per manufacturer requirements.
- Endpoint programming and data entry into head-end system or handheld device as applicable
- Comprehensive Field documentation
- QC inspection and turnover package at each service (photos, install sheets, exception logs).
- Coordination with the selected system provider for testing, verification, and system integration

### Ancillary & Variable Scope Items

Based on our field experience and familiarity with existing site conditions in Jerome, and in keeping with our commitment to transparency PWS has identified the following as a potential variable to the base installation scope:

- Pit Box Removal & Reset:

If access to valve/curb stop or meter unions are obstructed due to buried, deteriorated, or misaligned boxes, PWS will excavate, remove, and re-install pit boxes as needed to complete the meter changeout.

- This would be billed on a unit rate basis and only performed with prior written approval from the distributor and/or Town of Jerome project lead.

Variable Item	Price
<b>3/4" &amp; 1" Pitbox Excavation, Removal &amp; Reset</b> Excavation for pit boxes with obstructive debris and soil, to create a clean, accessible environment for meter installation. Required for meter installations exceeding one pit box or reachable depth or pit boxes set on top of water meter connection fittings	\$99.57

### **Additional Support Services Available**

The following optional services can be provided by PWS upon request:

- Meter box and lid replacements
- Lid drilling
- Temporary bypass connections
- Curb & angle stop replacement
- Service line repair or replacement
- Sawcut asphalt/concrete
- Call center services
- Resident notifications



## **PWS Commitment to Safety & Quality**

At Phoenix Water Solutions (PWS), safety, quality, and professionalism are the cornerstones of our field operations. Every project—regardless of size or scope—is executed in strict compliance with Arizona Division of Occupational Safety and Health (ADOSH) standards, best practices in environmental management, and rigorous internal quality control protocols.

### **ADOSH Compliance & Field Safety**

PWS prioritizes full compliance with Arizona's Division of Occupational Safety and Health (ADOSH) for all jobsite activities. Our team members receive ongoing training and certification in:

- Confined space entry and ventilation protocols
- Hazardous material awareness and environmental protections
- Personal protective equipment (PPE) usage and safety protocol adherence
- Lockout/tagout procedures and emergency response

#### **Confined Space Safety**

Large meter work, vault access, and enclosed spaces are handled by three-person crews trained in confined space entry.


- Required safety equipment includes tripods, air quality monitors, confined space ladders, and ventilation tools.
- Respiratory protection and rescue protocols are followed per ADOSH confined space requirements.

#### **Comprehensive Employee Safety Training**

PWS enforces a documented health and safety policy led by a dedicated Safety Coordinator. Our employee training program includes:

- Basic Safety Training: Hazard recognition, emergency action plans, bloodborne pathogens, and fire prevention
- Field Safety: Ladder safety, power tool operation, mobile equipment use, and heat stress prevention
- Ongoing ADOSH Certification & Refreshers: Updated training on confined space entry, traffic control, and PPE

### **Quality Control & Installation Best Practices**



PWS follows a standardized and documented installation process that ensures high-quality work and strict adherence to project specifications.

#### Pre-Installation Assessment

- Identify and document landscaping, traffic, meter box conditions, and service line material before beginning work.
- Proactively address potential obstacles to prevent unnecessary delays or service disruptions.

#### Installation & Quality Assurance

- Technicians follow a step-by-step documented procedure to ensure all meters are installed correctly.
- Leak-checks, AMI/AMR endpoint verification, and field site cleanup are conducted at every installation site.
- Experienced in working with various service line materials including copper, galvanized steel, ductile iron, and PVC.

#### Post-Installation Verification

- Before-and-after photo documentation
- Meter readings and serial number confirmation
- Before-and-after site documentation, including photographs and GPS data for complete tracking and accountability.

### **Project & Data Management**

PWS ensures seamless integration between installation crews, project oversight teams, and utility systems through advanced project and data management tools.

- On-Site Project Management: PWS will assign an on-site manager(s) responsible for project staffing & installation oversight, customer complaint resolution & emergency response, appointment scheduling & inventory control, and daily quality control audits & compliance reporting.
- PWS-ITS Work Order Management System: PWS utilizes its Installation Tracking System (PWS-ITS) to manage and track all meter change-out programs.

#### Key Features of PWS-ITS:

- Centralized Data Management: Tracks meter locations, make, model, serial number, and installation status.
- Real-Time Quality Control: Captures installation data, including accuracy test results and leak detection logs.

- Photo & Document Storage: Logs images for quality assurance and work validation.
- Seamless Data Integration: Automatically transfers data to the Utility's billing software and GIS mapping system.

### **Customer Service Commitment**

PWS prioritizes professional, ethical, and customer-focused service in all installation projects.

- Customer Communication & Scheduling: Flexible scheduling for commercial and multi-family properties, minimizing service disruptions. Coordination with municipality & customers for complex meter replacements requiring extended service shutdowns. 24/7 emergency response availability and after-hours contact support.
- Professionalism & Trust: Technicians wear PWS-branded uniforms and carry photo ID badges. Vehicles clearly marked with company name and contact information. PWS enforces a documented Code of Conduct across all employees. Comprehensive background checks and drug testing for all employees.

### **Installation Warranty & Follow-Up**

- All labor is covered under a 12-month workmanship warranty
- Any post-installation issues caused by meter replacement will be corrected at no cost
- PWS provides 24/7 contact availability for urgent follow-ups during the project

### **Equipment & Resource Readiness**


PWS equips all employees with specialized tools and safety equipment necessary to complete meter installations efficiently and safely.

#### **Standard Equipment & Tools**

- Fleet vehicles equipped with lifts, safety lights, and company branding
- Personal Protective Equipment (PPE), confined-space safety tools, and traffic safety gear
- Portable meter testing benches
- Hand and power tools for cleaning meter boxes, removing stubborn fittings, and securing new installations
- Vacuum pumps and air blowers for flooded meter boxes
- Valve keys, lid lifters, and generators

### **Hiring & Employment**





PWS is committed to maintaining a workforce that meets all legal, regulatory, and safety requirements.

- E-Verify & Legal Compliance: PWS participates in E-Verify to ensure all employees are legally authorized to work in the United States. Employees adhere to City-mandated badge requirements and uniform policies.
- Employee & OSHA Training: All field technicians receive ADOSH safety training and confined space certification. Continuous training programs ensure employees remain up to date on all confined space, hazardous work, and environmental protection protocols.

### **Environmental Management**

PWS complies with Arizona Department of Environmental Quality (ADEQ) and local environmental regulations during all phases of work.

- Environmental Standards & Waste Management: Follows EPA & ADEQ standards for hazardous waste disposal and lead-free material usage. Recycling and water conservation programs integrated into our installation approach. Where applicable, meter boxes, lids, and related materials are recycled or repurposed.

# Exclusions List

The purpose of this Exclusion List is to clearly outline the scope of work that is not covered by Phoenix Water Solutions (PWS). This document is a key part of the overall bid and aims to provide transparency, manage expectations, and ensure clear communication between all parties. By explicitly stating what is excluded from the scope, PWS can allocate resources effectively and avoid misunderstandings.

It is essential to review this Exclusion List alongside the main proposal to understand the limitations of the services provided.

**Note:** This list is illustrative and may not include every potential exclusion. Any concerns should be discussed and resolved prior to bid submission. Items listed here may be performed as additional services if authorized.

## Labor Exclusions

1. **Overtime, Off-Hours, and Weekend Work** – Not covered unless explicitly approved in writing.
2. **Non-Specialized Labor** – Tasks outside PWS's standard water meter installation, box lid, piping, and trenching are excluded.
3. **Management of Other Subcontractors** – PWS is not responsible for managing subcontractors outside its direct hire.

## Material Exclusions

1. **Material Price Fluctuations** – Price increases after contract execution are not included.
2. **Owner-Supplied Materials** – PWS assumes no liability for issues involving provided meters or parts.
3. **Specialty or High-End Materials** – Not included unless specifically listed in the bid pricing schedule.

## Work Scope Exclusions

1. **Design Changes** – Any revisions to scope, location, or materials not defined in the RFP or bid documents are excluded.
2. **Archaeological or Environmental Discovery** – Not responsible for handling buried historical or environmental finds.
3. **Soil and Environmental Testing** – Not included unless specifically noted.
4. **Landscaping and Water Table Issues** – Restoration beyond typical backfill (e.g., turf, landscaping, or high water table mitigation) is excluded.
5. **Utility Connections** – System-side utility service or mainline connections are not included unless specified.
6. **Permit and Licensing Fees** – PWS assumes the prime contractor will obtain permits unless otherwise agreed.
7. **Code Compliance** – Any changes made to meet new or updated codes after bid submission are excluded.
8. **Pitbox Lids** – Endpoint lid drilling or lid replacement is not included in this line item. PWS can mount endpoints through existing pre-drilled lids or utilize slotted lids that allow a no-drill slip-in installation. Final endpoint mounting approach and lid compatibility should be confirmed based on the selected meter system and endpoint hardware.

## Safety and Compliance

1. **Asbestos and Hazardous Material Removal** – Not included unless discovered and approved by Change Order.
2. **Specialized Safety Gear** – Not included unless specified in the contract or required by regulation.

## Financial Exclusions

1. **Contingency Costs** – Any unforeseen conditions not described in the contract documents will require a Change Order.
2. **Interest on Late Payments** – Not included unless previously defined in the agreement.
3. **Third-Party Inspections or Consultant Costs** – These are excluded unless expressly stated.

## Project Management and Timelines

1. **Delays Caused by Others** – PWS is not responsible for delays caused by the District, vendors, weather, permitting, or external contractors.
2. **Dispute Mediation or Legal Representation** – Legal costs arising from third-party disputes are excluded.

## Miscellaneous Exclusions

1. **Force Majeure** – PWS is excluded from liability for delays or damages resulting from events beyond reasonable control, including natural disasters, severe weather, pandemics, strikes, or governmental actions.
2. **Public Relations and Marketing** – Costs, labor, or materials related to promotional, outreach, or public information campaigns are not included unless specifically requested and quoted.
3. **Dispute Resolution and Legal Fees** – Legal costs, mediation, or arbitration involving third parties (e.g., homeowners, subcontractors, vendors) are not included unless specifically approved by the District.

#### **Leak and Infrastructure Exclusions**

1. **Leaks on Incorrect Side of Meters** – PWS is not responsible for leaks on the service/customer side of the meter or due to incorrect labeling of water service lines. Any post-installation issue outside the defined work zone is excluded.
2. **Old Infrastructure Failures** – Failures due to deteriorated, improperly marked, or undocumented legacy infrastructure (including brittle lines, shallow depths, or corroded valves) are not covered under base contract terms and must be reviewed for additional scope via Change Order.

#### **Large Meter Exclusions**

1. **External Valve Locations** – Excludes additional work for meter vaults that do not have both supply and return valves located outside the vault. Any added requirement to install or relocate valves is not included.
2. **Permit Acquisition (PWS)** – PWS is not responsible for obtaining permits. Any permitting requirements must be coordinated and managed by the prime contractor or owner.
3. **Meter Start-up Responsibility** – The process of initializing, activating, or calibrating meters after installation is excluded unless explicitly included in the agreed scope.
4. **Installation Requirements** – Any unique or project-specific installation requirements not defined in the contract or bid documents are excluded and subject to additional review and pricing.
5. **Documentation Requirements** – Additional documentation requests (e.g., detailed reports, special data formatting) not specified during the bid process are not included.
6. **Meter Delivery Responsibilities** – PWS excludes responsibility for delivering large meters to the job site unless clearly defined in the contract. Clarification is needed on whether the responsibility lies with the prime contractor, the District, or PWS.
7. **Heavy Meters Consideration** – The handling, transportation, and installation of heavy meters requiring special equipment, coordination, or additional labor are excluded unless previously discussed and priced.
8. **Weights and Measures** – The calibration and certification of meters through a Weights and Measures process is excluded from the scope and pricing unless otherwise stated.

**Note:** The exclusions outlined above reflect tasks, resources, and responsibilities outside the original scope and pricing. If any of these items are requested during the course of the project, PWS will prepare a formal estimate for approval prior to execution. This approach supports transparency, scope alignment, and successful project delivery.





# YOUR GUIDE TO OUR METER SERVICING



## Elevate Your Property's Efficiency and Reliability With Our Tailored Meter Servicing Solution

### OUR METER SERVICING EXPERTISE

We are dedicated to providing exceptional meter servicing that aligns with our core values of water conservation, client return on investment (ROI), and seamless service integration. With us, we know how key it is to have water meters that work right and give you the information you need.

### NATIONWIDE REACH



Full time Technicians  
covering 25 States



We have offices in Florida,  
Arizona, California,  
Michigan, and Texas.



### BRAND PROMISE

- ✓ Turnkey Solutions
- ✓ Quantified ROI
- ✓ Proactive Solutions
- ✓ Water Utility Experts
- ✓ Data-Driven Services
- ✓ Simplified Payment Solutions
- ✓ Commitment to Relationships
- ✓ Water Conservation Leadership

### WHERE NEED MEETS EXPERTISE

**Versatile System Knowledge:** Proficient with a wide range of metering systems.  
**Custom Pricing Models:** Flexible pricing to meet unique customer requirements.





## Who We Are

We were founded in 2015 with a mission to elevate the country's water conservation standards through technology and service. We build and support solutions that reduce waste and address our partner's and customer needs.

## Our Mission

Phoenix Water Solutions strives to conserve our most precious resource by installing data-driven technologies and sustainable infrastructure. Through our services, we reduce waste and make communities proactive with their water management turning their expense into an asset.



### Detailed Documentation Process

- GPS Coordinates: Precise location tracking.
- Serial Numbers: Ensuring accurate identification.
- Time Stamps: Verifiable service times.
- Photos: Visual proof of condition and service.
- Field Notes: Comprehensive records of visit.



### Customized Service Approach

- Tailored systems for seamless data integration.
- Strategic use of specialized tools for enhanced partnership support.



### Professionalism in Action

- Technicians provide live updates.
- Company-branded uniforms and vehicles for easy recognition.
- Thorough final checks to guarantee perfect functioning.

## GET IN TOUCH WITH US

602-962-9348

[www.phoenixwatersolutions.com](http://www.phoenixwatersolutions.com)

[info@phoenixwatersolutions.com](mailto:info@phoenixwatersolutions.com)

## SERVICES OFFERED

### VAULT METER INSTALLS

Our Technicians are Confined Space Certified for vault meter installations.

### LARGE METER CAPABILITY

We also specialize in servicing large meters, including those in vaults or wells, ranging from 3 to 10 inches.

### MONTHLY READING SERVICE

Our monthly water meter reading service ensures accuracy and timeliness for billing cycles.

### MUNICIPAL & PRIVATE SECTOR COLLABORATION

We are equipped to handle the needs of both private companies and public entities, offering contracted services for comprehensive water meter management.

### GENERAL METER SERVICING

We install comprehensive 3/4-inch and 1-inch metering systems, suitable for both indoor and outdoor applications.

## WE STAND OUT WITH OUR EXTENSIVE KNOWLEDGE IN SERVICING A VAST ARRAY OF METER SYSTEMS:





## SECTION 5

# PRICING PROPOSAL



PureOps of Arizona  
748 West Palms  
Las Cruces, NM 88007 US  
www.pureops.com

**ADDRESS**

Office of the Town Clerk  
Town of Jerome  
600 Clark St.  
PO Box 335  
Jerome, AZ 86331

**SHIP TO**

Office of the Town Clerk  
Town of Jerome  
600 Clark St.  
PO Box 335  
Jerome, AZ 86331

**Quote AQ250476****DATE 11/05/2025****EXPIRATION DATE 12/31/2025****SHIP VIA**

Best Way

**PROJECT**

Turn-Key Cellular AMI  
Meters

**LEAD TIME**

10-12 Weeks

**POC EMAIL**

mike@pureops.com

**Includes Installation Services  
By Phoenix Water Solutions**

DESCRIPTION	QTY	RATE	AMOUNT
Master Meter 5/8" x 3/4" Sonata Meter BRASS Flow Tube w/Nicor (Encoder Output) P/N: S112-A00-A05	299	347.95	104,037.05
Master Meter 1" Sonata Meter BRASS Flow Tube w/Nicor (Encoder Output) P/N: S116-A00-A05	17	469.65	7,984.05
Master Meter 1-1/2" Stainless Steel Octave Meter w/Encoder module, 5' Nicor & Allegro Cellular Pit Antenna w/2' Nicor-Cellular, 13" Length P/N: O316-M1-A10-C*	13	1,846.98	24,010.74
Master Meter 2" Stainless Steel Octave Meter w/Encoder module, 5' Nicor & Allegro Cellular Pit Antenna w/2' Nicor-Cellular, 17" Length P/N: O301-M4-A10-C*	2	2,110.98	4,221.96
Master Meter 4" Stainless Steel Octave Meter w/Encoder module, 5' Nicor & Allegro Cellular Pit Antenna w/2' Nicor-Cellular, 17" Length P/N: O304-M1-A10-C*	1	3,458.22	3,458.22
Master Meter Cat-M Pit Booster Cellular AMI Endpoint w/ 2' Nicor Connector (To Be Used With All Sonata Residential Meters) P/N: 199-181-17	316	170.11	53,754.76
Master Meter Harmony Encore Enterprise Management Software (MDM) Includes first year Annual Hosting and Support for Harmony Fixed Base P/N: RSS-HAR-A-MDM	1	6,000.00	6,000.00
Harmony Encore Billing System Integration ~Required for New Allegro AMI Licensed (Fixed Base) and Allegro Cellular customers P/N: RSS-HAR-A-BSI	1	600.00	600.00
Master Meter Harmony Encore Software System Training (Up to 2 days) P/N: RSS-HAR-A-TR2	1	6,870.00	6,870.00

SUBTOTAL 210,936.78

TAX 0.00

**TOTAL \$210,936.78**

REMIT PAYMENT TO: 748 West Palms, Las Cruces, NM 88007

## Town of Jerome

### Proposal Document A – Proposal

To: Honorable Mayor & Council  
600 Clark St.  
Jerome, AZ 86331

In compliance with the Town of Jerome's Request for Proposals for an Advanced Metering Infrastructure System and the Notice to Respondents by the Town Manager, the undersigned respondent:

Having carefully examined the proposal documents and being familiar with the conditions to be met, hereby submits the following proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed and agrees to execute contract documents and furnish the required Bonds and Certificates of Insurance for the completion of said work, at the locations and for the prices set forth on the Fee Proposal.

Understands that procurement of this project shall be in accordance with all applicable Standard Specifications and as otherwise required by the General Provisions and Special Provisions.

Understands that this proposal shall be submitted with a proposal guarantee of cash, certified check, cashier's check, or surety bond (in accordance with Title 34, A.R.S.) for an amount not less than ten percent of the total amount proposal.

Agrees that upon receipt of Notice of Award from the Town of Jerome, they will enter into contract negotiations and execute the contract documents.

Work shall commence no later than 30 days, after the Notice to Proceed and shall be completed within 180 calendar days, beginning with the day following the starting date specified in the Notice to Proceed. The time allowed for completing the work includes lead time for obtaining the necessary materials and/or equipment. Respondent agrees to pay, as liquidated damages, two times the sum as stated in the latest revision of the MAG Specifications. Liquidated Damages shall be based upon the final contract amount.

The respondent hereby acknowledges receipt of and agrees that this proposal is based on the following Addenda (if there are no addenda, write NONE below).

NONE

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TOWN OF JEROME, ARIZONA | Advanced Metering Infrastructure System

The Town of Jerome retains the right to reject any or all proposals and to waive minor defects and technicalities or withhold the award, as may be deemed best for the interest of the Town.

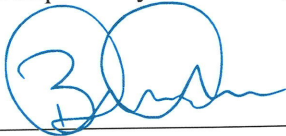
This proposal shall be valid for a period of 30 days after the proposal deadline.

THIS PROPOSAL is submitted by PureOps of Arizona, LLC, a corporation organized under the laws of the State of Arizona, a partnership consisting of Manufacturers representatives and authorized distributor of the City of Tucson, AZ, and holder of Arizona State Contractor's License(s):

Classification(s) CR-37 (Plumbing)

No.(s) ROC #339119 (Phoenix Water Solutions)

Respectfully Submitted,



Respondent

3430 E Sunrise Drive Suite 180

Tucson AZ 85718

Address

Brandon Garcia, Sales Director & Technical Lead

By (Officer & Title)

11/5/2025

Date

ATTEST:

Mario Gonzales, Owner & CEO

(Officer and Title)

Rebecca Gonzales, VP Operations

Witness (if respondent is an individual)



## Town of Jerome

### Proposal Document B – Fee Proposal

Respondent PureOps of Arizona, LLC

Mailing Address 748 West Palms

City Las Cruces State NM Zip 88007

Telephone (575) 644-0571

PURSUANT to, and in compliance with, the Town of Jerome's Request for Proposals for an Advanced Metering Infrastructure System, the Notice to Respondents, Instructions to Respondents, and the Proposal Documents relating to the:

#### **TOWN OF JEROME ADVANCED METERING INFRASTRUCTURE SYSTEM**

This is to certify that the above documents, as well as the site upon which work is to be performed and any and all conditions affecting the work, have been carefully examined, that the amount and nature of work to be accomplished is thoroughly understood and that at no time will misunderstanding of the drawings, specifications or conditions to be overcome be alleged or pled as a basis for change orders, damages or non-performances.

I (We) acknowledge that the following Fee Proposal and table are for the convenience of the Town of Jerome to analyze the individual components of the proposal and to provide a means for partial payments during the project. The sum of the extended unit prices shall be the final price for the product procurement in accordance with the technical specifications. The total price listed on the Fee Proposal shall be the same as listed on the proposal to the Town of Jerome.

#### **FEE PROPOSAL INSTRUCTIONS:**

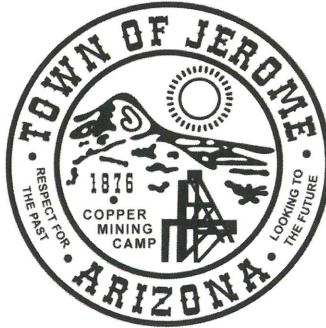
1. All items will be paid for as lump sums. The Fee Proposal's estimated quantity and unit price will be used as a means of computing progress payments and as a basis for any Change Orders incurred.
2. The owner reserves the right to recalculate the following Fee Proposal if they appear malapportioned.
3. The lump sum amounts indicated below are to include the respondent's cost of administration, mobilization, bonds, insurance, and any other miscellaneous items required for the project.

<b>FEE PROPOSAL</b> Town of Jerome Advanced Metering Infrastructure System					
		Est. Qty.	Units	Unit Price	Total Price
<b>CIVIL BASE PROPOSAL</b>					
1	¾ x 5/8" AMI Meter	299	299	\$347.95	\$104,037.05
2	1" threaded AMI Meter	17	17	\$469.65	\$7,984.05
3	1 ½" flanged AMI Meter	13	13	\$1,846.98	\$24,040.74
4	2" AMI Meter	2	2	\$2,110.98	\$4,221.96
5	4" AMI Meter	1	1	\$3,458.22	\$3,458.22
6	AMI System Software	1	1	\$6,600.00	\$6,600.00
7	AMI System Training	1	1	\$6,870.00	\$6,870.00
8	AMI Data Collection Hardware/Software	1	316	\$170.11	\$53,754.76
9	FCC Registration	1	1	\$0.00	\$0.00
<b>SUBTOTAL COSTS – BASE PROPOSAL</b>					
<b>GRAND TOTAL, BASE PROPOSAL</b>				\$210,936.78 + Taxes as Applicable	

**GRAND TOTAL – BASE PROPOSAL** (in words): Two Hundred and Ten Thousand, Nine-Hundred and Thirty-Six Dollars and Seventy Eight Cents

NOTE: All Quantities Shown are approximate and are furnished solely for the contractor's convenience. The quantities provided will be the lump sum that payment will be made on. The individual items are for use by the Town to analyze proposals, use as a basis for any supplemental agreements, and for partial progress payments.

## Proposal Document C – Non-Collusion Certificate



### ADVANCED METERING INFRASTRUCTURE SYSTEM

Respondent: [PureOps of Arizona, LLC](#)

The undersigned respondent hereby certifies as follows:

To the best of his/her knowledge, the person, vendor, association, partnership, or corporation herein has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive pricing in the preparation and submission of a proposal to the Town of Jerome for consideration in the award of this solicitation.

Dated this 5<sup>th</sup> day of November 2025.

Signature

[Brandon Garcia](#)  
Written Name

[\(575\) 644-0571](#)

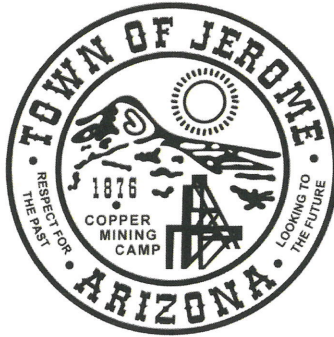
Phone Number

[brandon@pureops.com](mailto:brandon@pureops.com)

Email Address



## Proposal Document D – Certificate of Ownership



### ADVANCED METERING INFRASTRUCTURE SYSTEM

Respondent: [PureOps of Arizona, LLC](#)

The undersigned respondent hereby certifies as follows:

To the best of his/her knowledge, the person, vendor, association, partnership, or corporation herein, are the only person, vendors, corporations, partnerships, or other associations having any direct or indirect financial interest in the respondent's business as legal or equitable owner, creditor (except current bills for operating expenses), or holder of any security or other evidence of indebtedness.

Dated this 5<sup>th</sup> day of November 2025.

Signature

[Brandon Garcia](#)  
Written Name

[\(575\) 644-0571](#)

Phone Number

[brandon@pureops.com](mailto:brandon@pureops.com)

Email Address

## Proposal Document E – Respondent Qualifications, Representations, and Warranties



### ADVANCED METERING INFRASTRUCTURE SYSTEM

Respondent: [PureOps of Arizona, LLC](#)

The undersigned respondent hereby certifies as follows:

- X1 Taxes and Leins – Respondent has no unsatisfied tax or judgment lien on record.
- X2 Respondent's Examination – Respondent has made its own examination, investigation, and research regarding the requirements of the solicitation, including but not limited to the work to be done, services to be performed, any conditions affecting the work and services, the type and quantity of labor, equipment, and facilities necessary to perform. Respondent fully understands the character of the work and services, the manner in which payment is to be made, and the terms and conditions of the solicitation. Respondent acknowledges and agrees that it has satisfied itself by its own examination, investigation, and research, and that it will make no claim against the Town because of erroneous estimates, statements, or interpretations made by the Town. Respondent hereby proposes to furnish all materials, equipment, and facilities and to perform all labor which may be required to do the work within the time required and upon the terms and conditions provided in the solicitation, and at the prices as proposed.

Dated this 5<sup>th</sup> day of [November](#) 2025.

Signature

[Brandon Garcia](#)  
Written Name

[\(575\) 644-0571](tel:(575)644-0571)  
Phone Number

[brandon@pureops.com](mailto:brandon@pureops.com)  
Email Address