

# Meter Upgrade Project – Advanced Metering Infrastructure Amendment to N. Harris Agreements

Board of Public Utilities Meeting  
July 20, 2017



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# Agenda

- What is AMI?
- Why Upgrade Meters?
- Benefits
- Solution Providers
- Project Timeline
- Communication

# What is the Meter Upgrade Project?

- It is the installation of Advanced Metering Infrastructure (AMI)
- This technology impacts the way we do business related to water use.
- It involves multiple groups at Santa Rosa to implement.
- It is an integrated system of meters, communications networks, and data management systems that enables two-way communication between Santa Rosa and it's water meters.

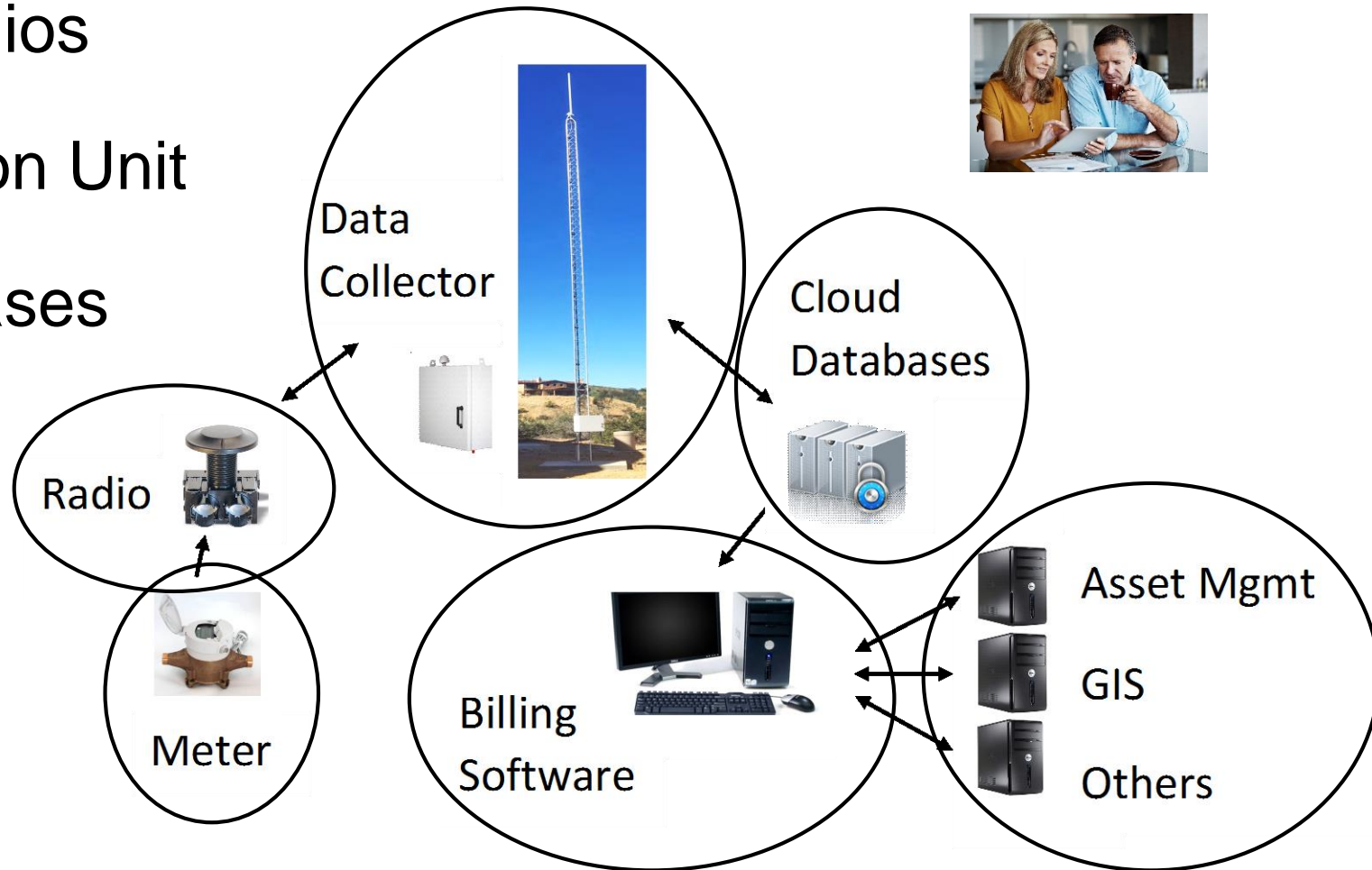
# Why Upgrade Meters?

- Aging Meters with Various Reading Methods
- Water Savings
- Leak Detection
- Improved Customer Service
- CIP Planning and Design
- Greenhouse Gas Reductions



# AMI Technology

- Meters & Radios
- Data Collection Unit
- Cloud Databases
- Data Transfer
- Interfaces



# AMI Project Benefits

- **Enhancing Customer Service:** The upgraded meters will allow customers to view and track daily water usage, detect leaks faster, provide consistent billing dates, and expedite service starts.
- **Improving Water Savings:** A future online customer portal will identify water saving opportunities with personalized recommendations, tracking, and alerts.
- **Providing Near Real-Time Water Usage Data:** The ability to access near real time data not only allows customers to track and manage usage, but has the added benefit of providing critical data to Water Department staff responsible water use efficiency and for assessing infrastructure replacement needs for water mains, pipes, and meters.
- **Reducing Greenhouse Gas Emissions:** The capability to transmit water use data wirelessly eliminates the need for vehicular travel to read water meters. In addition, faster leak detection means water and energy savings.

# Solution Providers

- **AMI Meters & Network** – Sensus/Xylem
- **Meter Data Management System (MDMS)** – SmartWorks Compass and MeterSense by Harris Utilities
- **Equipment Installation** – Utility Partners of America (UPA) and City Staff
- **Implementation Management** – UtiliWorks Consulting, LLC.

# Sensus/Xylem Inc. – AMI and Meters

- Over 500 AMI Projects
- More than 40 million Sensus/Xylem Inc. meters installed
- FCC-licensed spectrum for the FlexNet Network
- Development of next generation technologies



# UPA – Meter Installation

- Provider of large-scale meter installation services
- More than 15 million installation work orders complete and 175 utility projects
- Staff of more than 400 professionals



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# Installer Identification



**GUILLERMO CORTEZ**  
FIELD OPS MANAGER  
**upa**  
Utility Partners of America  
Contractor for:  
City of Santa Rosa



**ED PARRA**  
FIELD SUPERVISOR  
**upa**  
Utility Partners of America  
Contractor for:  
City of Santa Rosa



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# Harris SmartWorks- MDMS

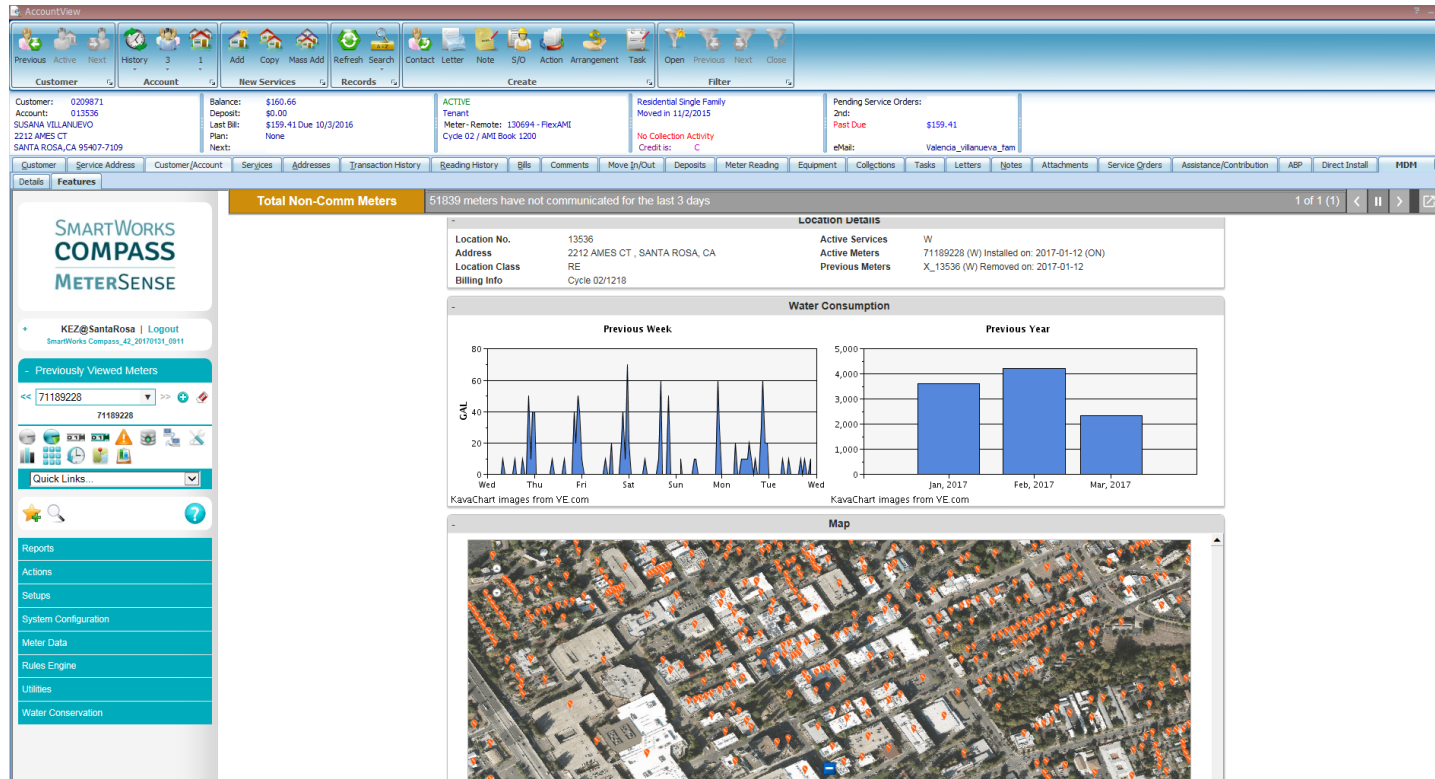
- Harris is a leader in MDMS for municipal utilities with over 35 years experience in software solutions.
- Provides analytical evaluation tools for staff and integrates customer consumption with the CIS and customer web-portals.



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# Harris MeterSense- MDMS



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# Leveraging Data

- Using the MDM platform
- Water Use Efficiency
  - Water Conservation Module
  - Water Conservation Manager
- Electrical Data
  - Overlay of Use Patterns



# My Efficiency Scorecard

Generated on 07/07/2017 at 08:45:01 AM

Account: 0188546-036867 - SOSA, SHAWN  
Address: 1200 15TH ST

Scorecard Date: 12/31/2015  
Number of Occupants: 2

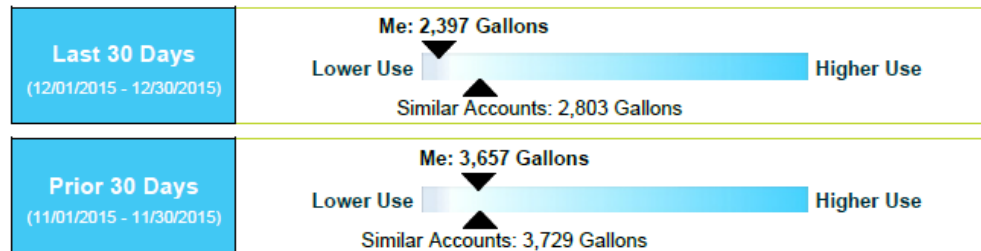
For information on how to read your scorecard visit [www.srcty.org/watersmart](http://www.srcty.org/watersmart).

## Yearly Water Usage

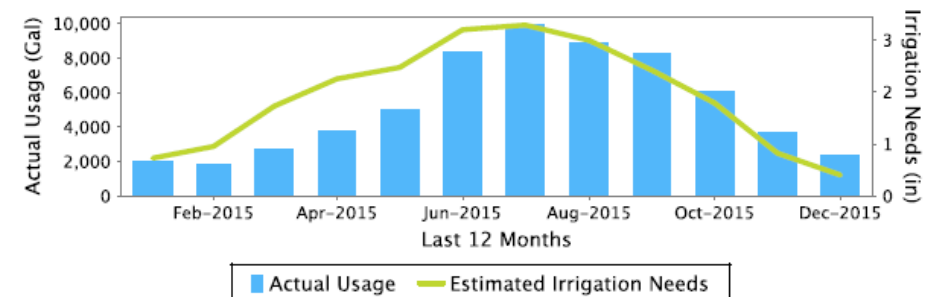
Period	Last 12 Months	Previous Year	Last 12 Months for Similar Accounts
Irrigation Season (Apr-Oct)	7,063	5,257	5,724
Non-Irrigation Season (Nov-Mar)	2,496	2,502	3,488
Full Year	5,177	4,118	4,803

Above usages in Gallons per Month.

## How Do I Compare?



## Water Usage Details



The Estimated Irrigation Needs, shown in inches, are for urban landscapes with moderate watering requirements based on factors such as weather and soil conditions. Some landscaping such as short green turf may require more water. In winter months, Irrigation Needs are typically met by rainfall. The Monthly Water Usages shown are for calendar months rather than billing periods and will not exactly match the values on your bill.



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# Proposed Contract Amendments

- Implementation
  - SOW for Water Conservation Manager
  - Additional Training
- Support and Maintenance
  - Water Conservation Manager
- Negotiated Pricing

# Timeline

- Alpha Testing
  - Completed
- Beta Testing
  - Meter reprogramming began in June 2017
  - 250 Meter +/-
- Full Deployment
  - Beginning in August/September 2017



# Communication

- AEC
  - Awareness and Education Campaign
- Meter Upgrade Project (AMI)
  - Under the Water Smart Program (WUE)
- Types of out reach
  - Postcards
  - Inserts
  - Press Releases
  - Web Pages
  - Brochures
  - FAQs



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**Santa Rosa WATER**

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**Meter Upgrade Project – Radio Frequency (RF) Facts**

We are upgrading water meters across Santa Rosa to provide near real-time water usage data using proven wireless technology. Just like your old water meter, your upgraded water meter will record your water use for billing. Santa Rosa will provide the same reliable service with these new meters but with even more benefits. The upgraded meters will provide the information needed to enhance customer service with the track your daily water usage, detect leaks faster, provide consistent billing, expedite service starts. A future online customer portal will also help customers identify water saving opportunities with personalized recommendations, tracking and alerts.

While there are many benefits, we do realize that there are concerns about the health hazards associated with radio frequency (RF) exposure. This is the frequency of the waves, it is synonymous to the term "radio," or simply put, the rate of oscillation of an electromagnetic wave. This is the frequency of the waves, it is synonymous to the term "radio," or simply put, the rate of oscillation of an electromagnetic wave.

**What is radio frequency (RF)?**  
Radio frequency (RF) refers to the rate of oscillation of an electromagnetic wave. This is the frequency of the waves, it is synonymous to the term "radio," or simply put, the rate of oscillation of an electromagnetic wave.

**How does my water meter use radio frequency (RF)?**  
Radio frequency (RF) is the method of transferring data wirelessly to an antenna through RF. The water meter units read the meters once the data is transmitted to an antenna in the City through a secure connection. The device can send alerts such as no use, leak detection, high usage, etc.

**Should I be concerned about health hazards associated with radio frequency (RF)?**  
No. Your water meter and the advanced metering system the City uses are compliant with the Federal Communications Commission's (FCC's) standards. In fact, the radio frequency (RF) exposure from your water meter is much lower than the exposure from your microwave oven, baby monitor, and many other common household devices. The American Cancer Society, California County Health Department, and the World Health Organization each provide a professional assessment of the health risks and all conclude there is no evidence that advanced metering poses a health risk.

**What You Need to Know...**

We are upgrading water meters across Santa Rosa to provide near real-time water usage data. Just like your old water meter, your upgraded water meter will record your water use for billing. Santa Rosa will provide the same reliable service with these new meters but with even more benefits.

**Improved Water Savings**

A new online customer portal will also help customers identify water saving opportunities with personalized recommendations, tracking and alerts.

**Enhanced Customer Service**

Your Water Meter	Old Meter	New Meter
Reliable way to measure water use	Water drop	Water drop
Ability to track your daily water usage	Water drop	Water drop
Allows for faster leak detection	Water drop	Water drop
Provides consistent billing dates	Water drop	Water drop
Expedites service starts	Water drop	Water drop
Online portal helps customers identify water savings	Water drop	Water drop

**Real-time Water Usage Data**

The ability to access near real-time data not only allows you to track and manage your usage, but has the added benefit of providing critical data to Water Department staff responsible for assessing infrastructure replacement needs for water mains, pipes, and meters.

**Reduced Greenhouse Gas Emissions**

The capability to transmit water use data wirelessly eliminates the need for vehicular travel to read water meters. In addition, faster leak detection means water and energy savings.

To learn more, visit: [srcity.org/meterupgrade](http://srcity.org/meterupgrade)

**Proyecto de Renovación de Medidores de Agua**

**Santa Rosa WATER**

**Water Meter Upgrade Project**

Important Notice

**Project benefits:**

- improve leak detection
- enhance customer service
- reduce greenhouse gas emissions
- provide real-time water use data

The City of Santa Rosa will upgrade water meters in your neighborhood in the next 1 to 2 weeks. Your meter will be upgraded by a licensed contractor, Utility Partners of America (UPA), with assistance from City staff. The work will require access to the meter box located in front of your property, typically the sidewalk, near the street. UPA will attempt to notify you by knocking on your door. Water interruption is expected to take less than 30 minutes. UPA will leave a door hanger explaining that your meter was upgraded.

707.543.3150 [srcity.org/meterupgrade](http://srcity.org/meterupgrade)

**upa** **Santa Rosa WATER**

# Recommendation

It is recommended by the Water Department and the Board of Public Utilities Contract Subcommittee that the Board of Public Utilities, by motion, approve amendments for the Support and Maintenance and the Software Implementation Services Agreements with N. Harris Computer Corporation and authorize the Chair to sign the contracts.

# Questions?

# Thank You!



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