Advanced Metering Infrastructure (AMI)

Fixed Network System

Strategic Focus Areas

Supportive and Sustainable Infrastructure

Financially Responsible

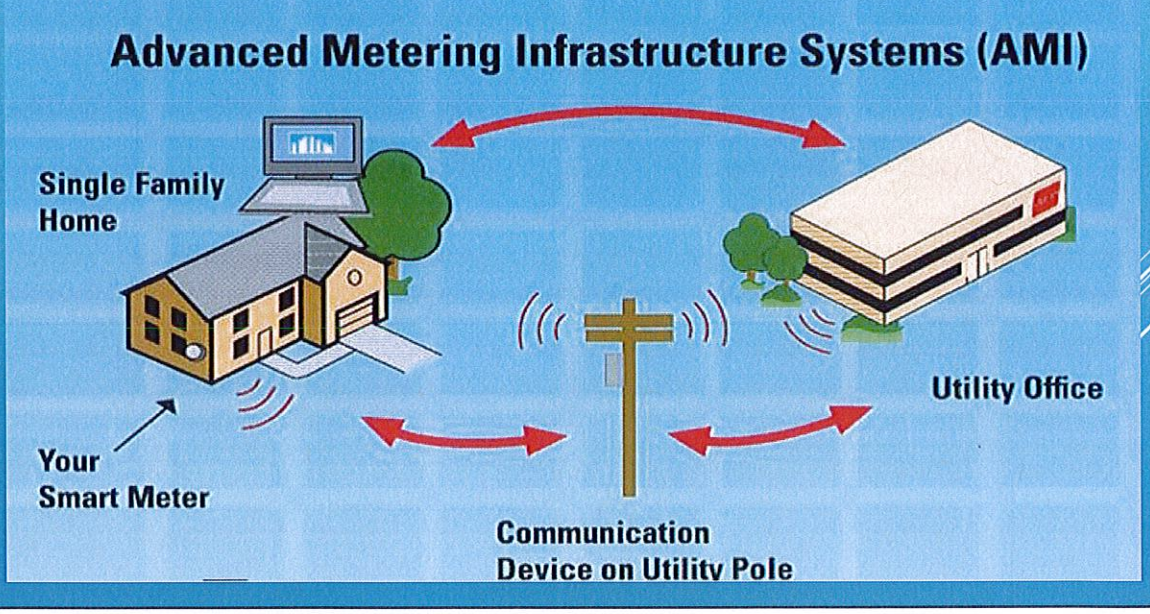
Innovative, Data-Driven, Results-Focused City Government

What is Advanced Metering Infrastructure (AMI) ?

The Advanced Metering Infrastructure (AMI) Fixed Network:

- **Automates meter data collection using wireless communications to collect meter readings and data**
- **Two-way communications to the meter and time synchronized interval data collection provide advanced data collection capabilities for increases in operational efficiencies, enhanced levels of customer service and improvements in system integrity**

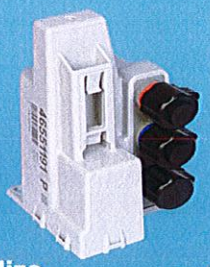
AMI System Overview



Benefits of the AMI Fixed Network System

- Improves billing cycles
- Reduction in estimated billing
- Reduce credits and adjustments
- Reduce initial and final read times
- Reduces truck rolls for scheduled and off-cycle meter reading increasing efficiencies
- Reduces meter reading labor costs, vehicle costs and reduced call handle time
- Empowers customers with access to consumption information via in-home displays or web presentation
- Improve customer satisfaction by providing more accurate and up-to-date billing data
- Manage water resource conservation programs more effectively
- Identify water theft and revenue loss due to meter tamper
- Improve employee and customer safety
- Improve water use forecasting
- Improve distribution system planning and asset management by providing accurate usage data to distribution system stakeholders.

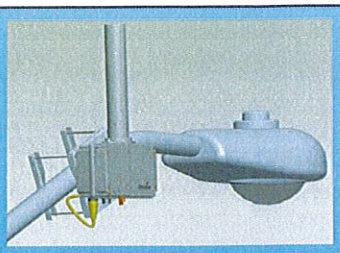
System Components



EndPoints:

- The power of the Choice Connect Fixed Network starts with water EndPoints, such as the 100w+ ERT
- These are coupled with the enhanced data collection systems that utilize Itron's proven ERT technology to communicate data to the utility
- Over 10,000 of these ERT's have been installed on City water meters during the past 18 months
- This is one major step in the process of converting to the AMI system

System Components



Fixed Network Collector CCU 100:

- The CCU 100 (also known as a collector) is the main collection point for the Choice Connect Fixed Network and reads data from Itron water endpoints.
- The CCU 100 gathers consumption, daily or hourly meter reads, and other information from endpoints and communicates it back to the utility over a public or private network.
- When used with the Fixed Network Repeater 100 the coverage territory per CCU 100 is extended.
- Equipped with a backup battery, the CCU100's adaptable design allows for a wide range of installation options, utilizing either AC, DC or solar power.
- Collectors and repeater units would be strategically installed throughout our service area on City owned assets and our Franchise Agreement also allows for installation on United Power street light assets.

System Components

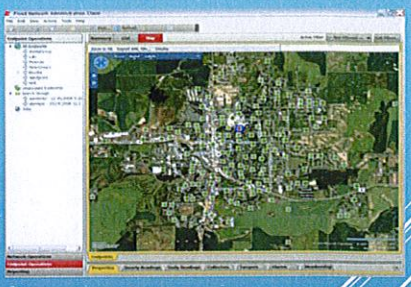
Repeaters:

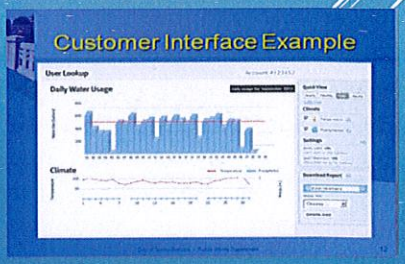
- Fixed Network Repeater 100 Repeaters add communication reliability and redundancy between endpoints and collectors.
- Installed on towers, buildings, poles or other structures, the Repeater 100 collects meter data from Itron water ERT modules and relays it to collectors within the network.
- This makes the ChoiceConnect 100 Fixed Network cost-effective and reliable.

System Components

Itron Network Software:

- The Itron Network Software manages the network operations and performance.
- It controls collection system operation, including processing and storing reads along with exporting data to external applications.
- The Network Software also offers advanced capabilities and integration with a meter data management system to enable end-to-end system functionality.
- This system will integrate with our current billing system as well as "Water Smart".





Project Timeline

- RFP Advertised: November 20, 2018
- Mandatory Pre-Proposal Conference: November 30, 2018
- Last Date for Inquiries: December 4, 2018
- Addendum (if required): December 6, 2018
- Submittal Date: December 10, 2018
- Study Session Project Overview: December 11, 2018
- City Council Meeting for Award: December 18, 2018
- Projected start: January 2019
- Projected completion: June 2019 (180 days)

Questions ?