

Automated Meter Infrastructure (AMI)

Project Overview

What is Automated Meter Infrastructure?

AMI is the use of technology that collects consumption and status data from a water meter and transfers that data to our office computer system for billing, troubleshooting, and analysis.

The current meter system consists of a meter (typically located on the entrance plumbing in the basement) that is wired to a readout box, which is usually mounted on the outside wall of the building. Our meter reader periodically visits each building and obtains the meter reading and records it on a handheld computer. The readings are stored in the handheld computer and downloaded to our billing system.

In this project we will be replacing the readout box with a radio transmitter unit (endpoint). The endpoint will send water use data to a nearby data collector, which in turn will transmit daily to our computers in our business office.

Why is the District doing this project?

One primary reason for upgrading our meter reading system is that the meter reading technology utilizing a manual readout box is no longer available. Meter reading technology has shifted to digital, usually involving radio. We studied and piloted several systems before choosing Mueller Systems as our AMI provider. Although not saving the District money in the short term, we will reap many long term benefits, as follows.

There are approximately 13,000 meters in our system. We read our annual meters once every three months and it takes three to four weeks per month on average to read the meters. The AMI system will reduce labor costs and vehicle expenses by eliminating the need to physically obtain meter readings. The system will be more efficient and environmentally friendly than the current system.

AMI will also provide better customer service. The system will provide us with daily status information for each meter. In the near future, customers will be able to monitor their water consumption and set their own customized automatic notifications. Customers will then be made aware of higher than normal water consumption much sooner than with our current system. In addition, we will be able to obtain nearly instantaneous readings for producing final bills when a property is sold or when a tenant moves out. We will also have more information available to answer billing questions. This will significantly reduce the number of field service calls, allowing us to operate more efficiently while also avoiding adding staff to serve an ever increasing customer base.

What work will the District do at each building?

At each metered building we will replace the meter with a new one, and replace the outside readout box with a radio transmitter. Our work should take less than an hour, and the water will be off for a short time while we replace the meter.