Fayette County Water System
Advance Water Metering Infrastructure
Questions and Answers

What is the Advanced Metering Infrastructure (AMI) Fayette County Water System is proposing?
AMI is a 10-year old technology and builds on what Fayette County has implemented over the past several decades with Automated Meter Reading (AMR). Today, the County drives by every meters collects data with a handheld device. AMI uses a fixed communication network or a cellular network that can capture meter data without visiting each meter. The method of transmitting the readings to the local water provider can vary depending on the AMI provider.

Some AMI systems feature two-way technologies for such as on-demand meter read distribution sensing technologies, such as leak detection, pressure sensors and other operational data. Staff will evaluate what type of metering technology Fayette County will adopt – either solid state technology using ultrasonic or magnetic flow measuring elements for improved low-flow accuracy, as opposed to the moving parts of the older meter technologies that are currently installed.

What are the benefits of installing an AMI system?
AMI benefits both customers and the water department. AMI provides Fayette County the ability to improve and streamline their water operations so the County provides safe, reliable and affordable water to all system users. An AMI system reduces meter tampering and water theft, improves backflow detection, reduces home and yard intrusions, and provides high usage and demand notice. Overall, it facilitates accurate customer metering and provides customers with information about their water usage behaviors encouraging water conservation.

What is the process for AMI project design and implementation?

1. Staff will work with the public stakeholders, Water Committee, and the current Engineer of Record to identify functional requirements used to select a new metering solution. These functional objectives for an AMI system are dependent upon future processes that the County is willing and able to implement. This includes analysis of fixed and mobile network technologies.
2. Following the County's Purchasing Procurement process, a request for proposal document with performance-based specifications and evaluation criteria to encourage competitive pricing while meeting specific functional objectives will be developed and distributed.
3. Vendor proposals that include comprehensive technical and costs data including lifecycle costs information will be evaluated by Staff and the Water Committee. Based on these evaluations, a final vendor contract presentation will be recommended to the Board of Commissioners (BOC) to answers questions and provide clarification before final approval by the BOC.

Who will oversee cybersecurity concerns for this project?
The County's Information Technology department. The County maintains strict confidentiality and privacy policies and uses the latest technologies and best practices to safeguard your information.

Unlike electric utility meters that transmit data constantly, water meters are battery powered. Water meter data is transmitted two to four times in a 24-hour period using a numerical ID. There is no personally identifiable information in the data transmissions. Only your water usage read will be transmitted through the network. This data is always encrypted, and transmission is directly from the

meter to data collector to the County. Additionally, providers must meet cybersecurity standards and industry best practices.

What is the life span of the AMI meters you are proposing?
Most providers offer a 20-year warranty with a 10-year full replacement warranty.

Where are AMI Water meters produced?
Some of the top water meters used in the United States are Badger, Mueller and Sensus meters.

Badger Meters are manufactured for selected products for the water utility in Milwaukee. Mueller Systems manufactured in Cleveland, NC and is f the oldest manufacturer of water meters in the United States. Sensus Meters - In the United States, the manufacturing facility is in Uniontown, Pa.

The May 6th AMI presentation stated 95 percent of water meters are under-registering and there is a 13 percent non-revenue loss annually. How is that calculated? How much money does 13 percent represent?
The under-registering percentage is based on accuracy testing results performed on a sample of residential meters and all large or commercial meters tested annually.

Annual revenue loss is determined using a weighted average calculation considering factors such as meter accuracy test results, the number of active customer accounts, and annual billed usage. In 2020 the 13 percent lost equated to $819,400.

What are maintenance and replacement costs for AMI compared to analog meters?
The lifecycle costs (including maintenance) for AMI meters are lower than analog meters due to:

- Improved meter technology and registration;
- Elimination of operating costs due to reading, rereads and estimations;
- Improved Water System performance by reallocating staff responsibilities; and,
- Lower production costs due to reduced water loss.

How will the Water System budget for maintenance and replacement costs?
As part of our ongoing business practice, we will incorporate lifecycle operating and maintenance costs into the budgeting process.

Are there any health concerns related to AMI water meter exposure?
No. AMI technology uses non-ionizing radio frequencies (RF) to communicate water usage information. Approved by the Federal Communications Commission, this type of RF is commonly used in mobile phones, broadcasting signals, baby monitors, medical monitors, and blue tooth devices. The water meters total data transmission is limited to a few milliseconds that equates to about two minutes a year.

What other Georgia water utilities, comparable in size to Fayette County, use AMI?

Will employee's jobs be affected within the Water System?
AMI use provides opportunities for employees to learn new skills and gain experience with digital technologies. All current employees will be retained and transitioned into new positions to support the new technology. Our plans include support to help employees transition. Education and training will be available to employees before, during and after the AMI project is complete.

How will Fayette County ensure the AMI meters are accurate?
During the project, rigorous testing by the selected AMI Vendor and Staff will be performed to ensure the meters are accurately measuring water consumption. Our plan includes testing with a small number of AMI meters before the system is approved.

Are the Fayette customers paying for this new AMI system?
No. There are no plans to increase rates due to this project. The AMI system will be almost entirely paid with American Recovery Plan grant funding.

What is the schedule for AMI Project implementation?
The County is planning to get started on the preliminary design and procurement in July 2021. We will share more details on the implementation schedule as progress is made on the design and procurement.

Will customers have an opportunity to learn more about the project?
Yes. The County will provide opportunities to learn more about the project through various communication channels including the County website, County public meetings and future community meetings. Details about these opportunities will be provided when available.

Where can the water customers find the supporting documentation that was presented to the Board for making this decision?
In 2011 the Metropolitan North Georgia Water Planning District, as part of their Water Resource Management Plan, required local water providers to conduct a system-specific study for AMI by Dec 2018, except for those water system that had/were currently developing an implementation program.

At both the 2018 and 2019 Board of Commissioner retreats AMI system implementation information was included as part of the Water System's capital improvement plan discussions. Detailed financing options and general benefits were provided to the BOC. Staff began educating the Water Committee about AMI and project delivery approaches at earlier Water Committee meetings.

Please see the May 6, 2021 presentation at the Fayette County website:
https://fayettecountyga.gov/administration/BOC/county_commission_meetings.htm