Automated Meter Reading (AMR)/Automated Metering Infrastructure (AMI)

Feasibility Study

March 6, 2023

AMR vs AMI

- Automated Meter Reading (AMR) and Automated Metering Infrastructure (AMI) are metering technologies utilized for reading of water meters.

  Automated Meter Reading (AMR) consist of the technology utilized to automatically collect metered consumption. The City currently utilizes AMR by performing drive-by of all meters every month to automatically collect readings via laptop. The data is then manually downloaded into the City's billing software.

  Automated Metering Infrastructure (AMI) consist of the technology utilized for two-way communication between the meters and the utility. Metering data is automatically transmitted via communication network to the billing software at set determined times.

Our Current Water System

- 15,946 water meters in system
  - 14,830 residential meters
  - 1,116 commercial meters
- Exclusively Neptune water meters
- Automated Meter Reading (AMR) setup
  - Meters are read each month by drive-by and information downloaded into billing system
  - Approximately 64 hours per month spent reading

Water Loss

- 14,830 residential meters
  - Utilize internal moving parts which wear over time
  - Potential water loss over time due to inaccurate meter reading
  - Potential loss of revenue over time due to inaccurate meter reading
  - Replace more frequently than other technologies (i.e. nutating disc technology versus ultrasonic)

Feasibility Study Requirements

- Complete a comprehensive analysis of:
  - Water distribution metering system needs
  - Water customer service infrastructure
  - Customer billing
  - Software
  - Cost
  - Feasibility
  - Viability
  - Advantages and Disadvantages of updated AMR or AMR/AMI system citywide
- Develop up to three alternatives/options
  - At least one alternative to include update to the city's existing AMR sytem
  - All alternatives to include recommendations concerning hardware, advantages and disadvantages of installation and cost-benefit analysis

Request For Proposal (RFP)

- October 2022 City invited written proposals
- Seven (7) vendors submitted proposals
- City staff interviewed three (3) finalist
- Quanta Technology, LLC completed with highest score

Financial

- Funding approved in FY2023 budget for AMR/AMI Feasibility Study $250,000.00
- Total cost of the Quanta Technology, LLC proposal $100,318.00

Options

recommended

Approve a professional services contract for an Automated Meter Reading (AMR) / Automated Metering Infrastructure (AMI) feasibility study with Quanta Technology, LLC in the amount $100,318.00.

Deny the contract.