



Memorandum

To: DeCarlon Seawood, City Manager
From: Erin Keys, P.E., Utilities Director
Date: June 01, 2026

Subject: Advanced Metering Infrastructure (AMI) Project

PURPOSE OF THE MEMO

To provide you with an overview of the proposed Advanced Metering Infrastructure (AMI) Project, including project scope, benefits, financial considerations, and recommended next steps.

PROCUREMENT PROCESS


The City issued a Request for Proposal under the Revised Statutes of Missouri in accordance with RSMO 8.231 for 'Guaranteed Energy Cost Savings Contracts'. Part of the evaluation was the company's ability to perform an AMI project. As a result of that RFP, the City selected Ameresco and signed an agreement in March 2025. That agreement was then amended in August 2025 to include the evaluation and development of an Advanced Metering Infrastructure (AMI) solution for the city's electric and water metering infrastructure.


BACKGROUND

City staff have been evaluating long-term solutions to modernize the City's aging electric and water metering infrastructure and replace the existing outdated meter reading process. The primary objectives of this evaluation have been to improve the accuracy and efficiency of utility meter data collection while addressing the operational and maintenance challenges associated with aging water and electric meters that have exceeded their useful service life.

The August 2025 amendment to the Agreement includes an investment grade audit of City's electric meters and water meters. Under this agreement, Ameresco conducted a comprehensive audit that included:

COLT/Transload • Sewer Utility • Solid Waste Utility • Stormwater Utility • Water & Light

 573.874.CITY (2489)
573.874.7380

 701 E. Broadway, P.O. Box 6015
Columbia, Missouri 65205

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- Analysis of the City's electric and water metering database
- Field surveys of meters and related infrastructure (boxes, vaults, lids, etc.)
- Testing a random sample of residential water meters
- Evaluation of current meter reading process and operations

Over the past 8 months, Ameresco provided and assisted City staff with:

- Technology workshops to evaluate various technology
- Vendor presentations and evaluations for AMI systems, meters, and customer portals
- Developing an accurate Scope of Work associated with meter replacements, installation of an AMI Network, and software integrations
- Issuing bids, obtaining pricing, and evaluating responses from meter, AMI, and software manufacturers

As a result of the audit and evaluation, Ameresco presented a turnkey Scope of Work, complete with initial and life cycle costing models for staff review and final selection. Staff then selected their preferred solutions and Ameresco has populated a contract for City of Columbia consideration.

OBJECTIVES AND SCOPE OF WORK

The AMI project directly supports several City objectives:

- Improve transparency for residents regarding electric and water usage
- Reduce water loss and unaccounted for consumption
- Replace meters that are past their useful life expectancy
- Increases efficiency in reading meters and responding to operational field issues
- Enhance customer service and response times

The project includes the replacement of 53,992 electric meters and the replacement or retrofit of 52,747 water meters. Additional components include:

- Installation of a complete AMI system and associated software
- Installation of new solid-state electric meters. The residential / light commercial meters will have remote disconnects.
- Installation of new solid-state water meters. Existing solid-state meters will be retrofitted with an AMI transmitter.
- Installation of AMI transmitters on all new and existing water meters.
- Installation of Meter Data Management (MDM) Software
- Integration of the AMI and MDM software with City's current Harris Advanced Utility Systems (AUS) billing software
- Integration with City's current MyMeter customer portal software
- Replacement of structurally damaged water meter boxes and non RF friendly lids

All installation data, GPS coordinates, and endpoint information will be captured and integrated into the City's billing system.

PROJECT BENEFITS

Implementing an Advanced Metering Infrastructure (AMI) system for both water and electric meters will provide many direct and indirect benefits to the City of Columbia and its citizens through improved customer service, operational reliability, financial stewardship, and public trust.

Benefits to Residents

- Transparent online access to hourly and daily electric and water usage data
- Faster electric outage detection and restoration
- Equitable, fair and accurate billing
- Early leak detection and alerts
- Daily data encourages customer driven electric and water conservation
- Quicker response to service inquiries & billing disputes
- Faster insight and more control over household utility costs
- Operational efficiency and savings help stabilize rates over time
- Greater support during emergency operations or disaster response

Operational Benefits

- Better system data allows for data driven decision making resulting in smarter future infrastructure investments
- Advanced outage management and restoration
- Enhanced electrical grid reliability through insights into power quality issues, voltage irregularities, and transformer overloads
- Remote disconnect/reconnect resulting in less 'truck rolls'
- High-resolution interval data collection for understanding peak demands and proactive capacity planning
- Theft and tamper detection reduces loss and unaccounted for revenues
- Allows for future dynamic pricing/rate structures
- Supports conservation initiatives
- Reduced meter reading and ongoing maintenance costs
- Proactive replacement of end of life equipment
- Enhanced customer service capabilities & response times
- Continuous consumption alerts, including leak detection, reduce water loss
- Reduced operational cost due to technology benefits (less re-reads, reduced move in/move out 'truck rolls', etc.)

FISCAL IMPACT

➤ One Time Fees:

- Ameresco Turnkey Project Cost: \$41,973,611
- Harris AUS Billing Software Integration Cost: \$108,975
- 3 Years of Measurement & Verification (M&V) Fee: \$93,111

➤ Annual Fees:

- Year 1 AMI SaaS Fees: Approximately \$170,030
- Year 1 MDM SaaS Fees: Approximately \$368,887
- Year 1 Additional Harris AUS Billing Software Fees: Approximately \$62,000
- Estimated 3% year over year increase in annual fees.

➤ Annual Savings & Revenue Projections:

- Year 1 Meter Reading & Operational Savings: \$1,155,185
- Year 1 Water & Sewer Projected Increased Revenues: \$598,507
- Year 1 Electric Projected Increased Revenues: \$2,203,593
- Total Savings and Revenue Projections Over 15-year term = \$71,350,093

Short-Term Impact: The City's cost is \$42,082,586. The City is working with lenders. The final financial product will either be a loan or special obligation bonds. The loans or bond issue will be over two years payable over ten years, allowing debt payments to go up gradually to approximately \$5 million per year. Savings and anticipated increased revenues will offset some of the costs..

Long-Term Impact: Annual cost for the software maintenance will be \$600,917, with a 3% estimated annual increase, and paid for from Water and Light operating budgets with savings from reduced vehicle usage.

PROJECT TIMELINE

- Council Workshop: June 2026
- Council Consideration and Approval: September 8, 2026
- Contract Execution and Notice to Proceed (NTP): September 11, 2026
- Construction Duration: Approximately 36-40 months after NTP.

RECOMMENDATION

Staff recommends moving forward with the AMI Project as presented and allow staff to bring all the associated contracts back to City Council for consideration and approval.