



## MEMORANDUM

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January 3, 2014

**TO:** Board of Mayor and Aldermen

**FROM:** Eric Stuckey, City Administrator  
Mark Hilty, Water Management Director

**SUBJECT:** **Consideration of Resolution 2014-02, A Resolution to Pursue Implementation of the Advanced Metering Infrastructure (AMI) Project as a priority project developed through the Integrated Water Resources Plan (IWRP)**

### Purpose

The purpose of this memorandum is to provide the Board of Mayor and Aldermen (BOMA) with information to consider adoption of Resolution 2014-02, A Resolution to Pursue Implementation of the AMI Project as a priority project developed through the IWRP.

### Background

The City of Franklin Water Management Department has approximately 18,000 water delivery points in the system. In the mid-1990s, the department started implementation of automatic meter reading (AMR) technology, enabling meter reads to occur via remote devices. To date there are approximately 14,800 AMR transmitters installed and approximately 3,000 manual read meters in the system.

The Water Management Department has been evaluating AMI to improve efficiency of operations and to enhance customer service capabilities. The AMI system transmits data directly from the meter endpoint to one or more base stations which is then forwarded immediately to back-end software via any available Ethernet connection. The data transmission occurs at a regular interval (typically 15 minutes) providing the City and customers with valuable water consumption information.

A sampling of the efficiencies and information that will help to enhance customer service and department operations include:

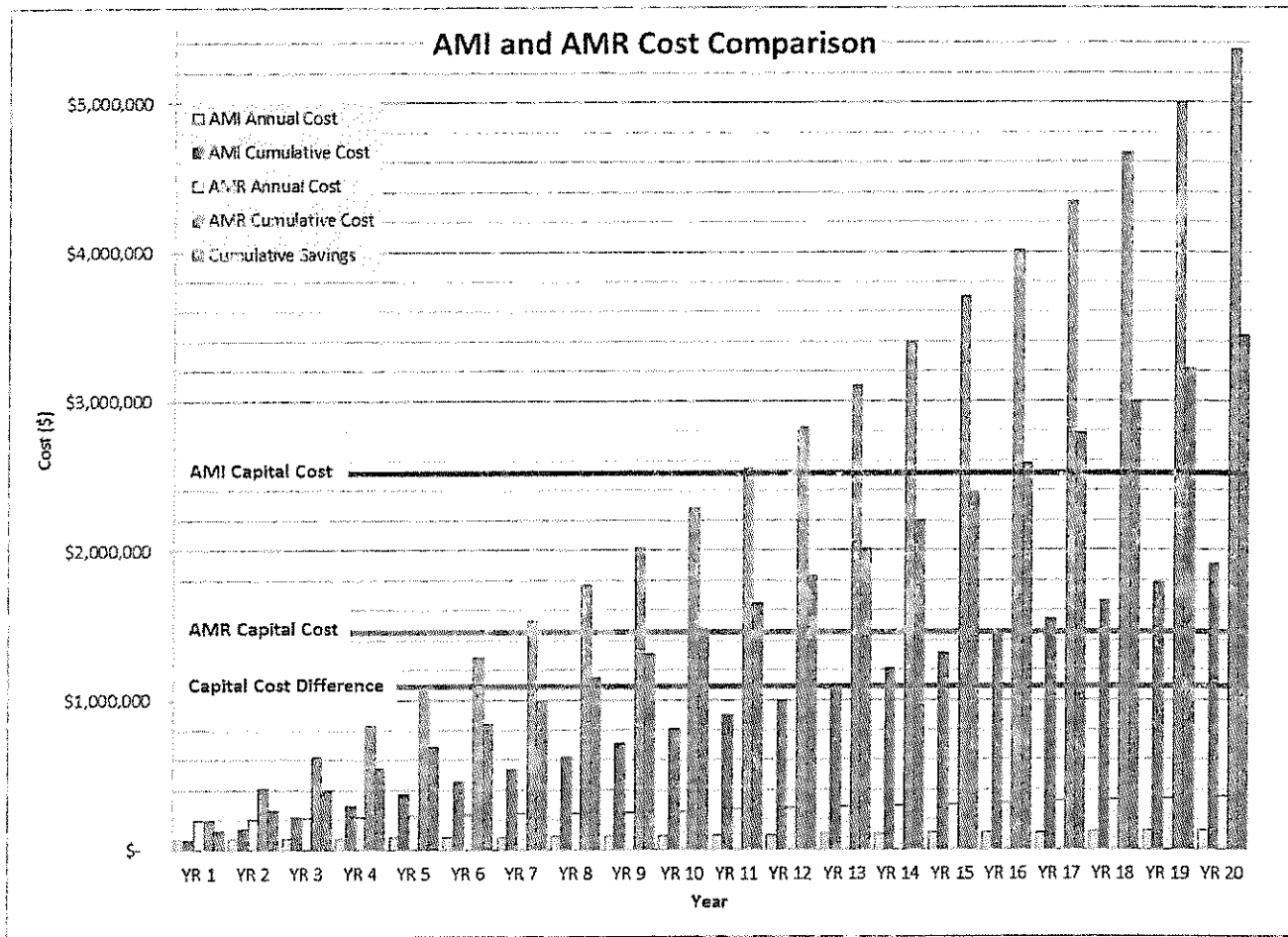
- Increased frequency on status of delivery point (consumption, leaks, read failure, etc.)
- Faster trend detection and location specific
- Detailed information at delivery points
- Leak Detection
- Reverse Flow
- Tamper Detection
- Lower meter reading expenses (personnel, gas, vehicle, insurance, etc.)
- Lower maintenance cost
- Maintenance activities are managed daily versus monthly
- Significant labor reduction



**Financial Impact**

The financial impact AMI was evaluated relative to full implementation of AMR. The table and chart below summarizes this evaluation based on funding the transition from rate revenues.

Description	AMI	AMR
Capital Costs for Transmitters	\$ 1,920,000	\$ 1,100,000
Capital Costs for Network and Meters	\$ 597,000	\$ 344,000
<b>Total Capital Costs</b>	<b>\$ 2,517,000</b>	<b>\$ 1,444,000</b>



**Recommendation**

Based on the customer service and system management aspects, as well as the cost savings to be realized, staff recommends that the City proceed with procurement for AMI to be implemented over a period of three to five years.

**RESOLUTION 2014-02**

**A RESOLUTION TO PURSUE IMPLEMENTATION OF THE ADVANCED METERING INFRASTRUCTURE (AMI) PROJECT AS A PRIORITY PROJECT DEVELOPED THROUGH THE INTEGRATED WATER RESOURCES PLAN (IWRP)**

**WHEREAS**, the Board of Mayor and Aldermen (BOMA) in 2009 determined that an Integrated Water Resources Plan (IWRP) was needed to provide for near and long term recommendations related to the operations, maintenance, policies, and capital investments for the City's water, sanitary sewer, reclaimed water and stormwater systems; and

**WHEREAS**, the Board of Mayor and Aldermen on October 10, 2009, entered into a contract with CDM Smith for the development of an Integrated Water Resources Plan for Franklin and Franklin's Urban Growth Boundary (COF Contract No. 2009-070); and

**WHEREAS**, CDM Smith has through a Stakeholders and Steering Committee process developed an IWRP which produced a portfolio of projects, including AMI, to meet the City's systems objectives over a planning horizon of thirty (30) years. Said objectives were developed, ranked and agreed upon by the IWRP Stakeholders' group through consensus votes; and

**WHEREAS**, the IWRP Steering Committee have recommended a Preferred Plan (Alternative 1) that provides a list of projects and/or policies, including AMI, needed to implement the intent of the IWRP;

**WHEREAS**, the AMI project has been identified as a priority to improve operational efficiencies and customer service.

**NOW THEREFORE, BE IT RESOLVED** by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, desires to pursue the implementation of the AMI project as a part of the IWRP Preferred Plan (Alternative 1).

**BE IT FURTHER RESOLVED** by the Board of Mayor and Aldermen that the AMI project will be considered for funding and completion as funds and time allows.

**IT IS SO RESOLVED AND DONE** on this 14<sup>th</sup> day of January, 2014

**ATTEST:**

**CITY OF FRANKLIN, TENNESSE**

**By:** \_\_\_\_\_

**ERIC S. STUCKEY**  
City Administrator

**By:** \_\_\_\_\_

**Dr. Ken Moore**  
Mayor

**Approved as to Form**

**By:** \_\_\_\_\_  
**Shauna R. Billingsley, City Attorney**

