



THE CITY OF SAN DIEGO  
**REPORT TO THE CITY COUNCIL**

DATE ISSUED: October 1, 2012 REPORT NO: 12-121

ATTENTION: Natural Resources and Culture Committee  
Agenda of October 10, 2012

SUBJECT: Implementation of an Advanced Metering Infrastructure System for  
Water Customers

REQUESTED ACTION: Authorize the Mayor to enter into an agreement with Itron Incorporated for the installation of an Advanced Metering Infrastructure System.

STAFF RECOMMENDATION: Approve the Resolution.

SUMMARY:

The Public Utilities Department (Department) has studied the use of Advanced Metering Infrastructure (AMI) technology as a means to enhance water meter reading accuracy and efficiency, customer service and billing, and as a tool for individual accounts to manage the efficient use of water. In addition, AMI technology provides utilities with remote meter reading capabilities which allow for less staff intensive efforts for reading hard to reach meters such as those in canyons and underground vaults.

Background

AMI technology allows water meters to be read electronically rather than through direct visual inspection by field staff. The meters transmit customer consumption and time-of-use data to the Department via a radio or cellular network. Time-of-use data can be used to manage and analyze customer consumption patterns. Additionally, AMI data identifies and alerts staff and customers of unusual consumption patterns which could indicate leaks or meter tampering on a customer's property.

AMI systems include multiple options for electronically capturing meter data. The first method requires meter readers to walk near the meter and collect reads using a hand-held device. The second method is a mobile system where a computer in a vehicle collects reads as the vehicle is driven near the meters. The third method is a fixed network system where the meters send information to a central computer through a system-wide network similar to a cellular phone network.

## Project Scope

The AMI project will consist of approximately 11,000 of the total meter population of approximately 275,000, along with the supporting fixed data collection network and data processing systems. The project includes all commercial meters (approximately 10,000) and approximately 900 residential meters.

## Selection Process

In May 2012, the City issued an AMI Request for Proposal (RFP) and received ten (10) proposals from potential vendors. The RFP requested technical and price information for each proposed system. Responding vendors were required to provide a "turn-key" deployment, including meter and AMI installations, system hardware/software development, and overall project management. Independent financing was also a requirement for the entire cost of service, system and installation proposed to the City. Vendors had the option to recommend their best solution(s) to address the City's needs, including only mobile/walk-by systems, only fixed network, or hybrid (combination of mobile/walk-by and fixed network) solutions.

In order to evaluate the RFP responses, a cross-functional Technical Evaluation Committee (TEC) was formed. The TEC evaluation included grouping responses into sub-categories, making a determination of how each sub-category met the City's requirements, and scoring each sub-category. At its conclusion, the technical evaluation team ranked every proposal and prepared a detailed written evaluation of the strengths and weaknesses of each, including findings from vendor demonstrations, reference checks and site visits.

The price evaluation included total life cycle cost analyses for each technology, including significant aspects of implementation such as operations and maintenance requirements, information technology costs, and on-going maintenance agreements.

Following the conclusion of the RFP evaluation process, Itron Incorporated was determined to be the best value proposal. Itron's proposal met the City's requirements and is based on a fixed network data collection system. Attached is the draft agreement between Itron and the City.

## FISCAL CONSIDERATIONS:

The project cost is estimated to be \$5.1 million and will be financed through the City's Master Lease Agreement which was approved by Council on May 22, 2012 via Ordinance (0-20166). The lease payments will be for a seven year term, beginning in FY2014. The lease payments are estimated to be \$770,000 annually and will be budgeted in the Department's annual budget.

## Cost Avoidance/Savings

Costs as described above total approximately \$5.1 million for the project deployment. Comparing costs against projected savings results in a net present value of more than \$5 million. Projected savings include:

- Automation/efficiencies in Meter Reading and Customer Service

- Improved consumption accuracy through the installation of new meters
- Detection and prevention of unauthorized use
- Early detection of failing meters after implementation

PREVIOUS COUNCIL and/or COMMITTEE ACTION:

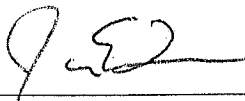
NR&C- Informational Presentation (March 21, 2012)

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS:

Public outreach will be a component of the project and will extend through implementation. To achieve this, the Department staff will educate and explain the benefits and features of AMI to interested parties with focus on the customers who will be receiving the new technology.

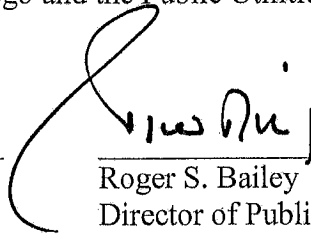
KEY STAKEHOLDERS AND PROJECTED IMPACTS:

The key stakeholders are the City of San Diego and the Public Utilities Department customers.



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Jim Fisher  
Assistant Public Utilities Director



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Roger S. Bailey  
Director of Public Utilities

Attachment: Agreement for Advanced Metering Infrastructure System