

## Agenda Report

May 11, 2015

**TO:** Honorable Mayor and City Council

**THROUGH:** Municipal Services Committee (April 28, 2015)

**FROM:** Water and Power Department

**SUBJECT: AUTHORIZATION TO ENTER INTO A CONTRACT WITH ITRON, INC. TO PROVIDE LABOR, EQUIPMENT, AND MATERIALS FOR THE WATER METER ENCODER RECEIVER TRANSMITTER (“ERT”) REPLACEMENT PROJECT FOR THE PASADENA WATER AND POWER DEPARTMENT**

### **RECOMMENDATION:**

It is recommended that the City Council:

1. Find that the project is exempt from the California Environmental Quality Act (“CEQA”) pursuant to State CEQA Guidelines Section 15302 (Replacement or Reconstruction); and
2. Authorize the City Manager to enter into a contract without competitive bidding with Itron, Inc., pursuant to City Charter Article X Section 1002 (C) - contracts for labor, materials, supplies, or services available from only one vendor, for an amount not to exceed \$802,725.48 for the Water Meter ERT Replacement Project.

### **BACKGROUND:**

An encoder receiver transmitter (“ERT”) communication module is a packet radio protocol developed by Itron, Inc. (“Itron”) for automatic meter reading (“AMR”). The technology connects to the water meter and transmits data over a short range so that meter data can be collected without physically inspecting each meter.

Implementation of the water meter AMR program was launched in 2005. Itron was selected as the preferred vendor because its ERT technology had already been installed in the Water and Power Department’s (“PWP”) electric meter AMR program and allowed the use of existing infrastructure. Since that time, all water meter contracts have been specified to be delivered with an Itron ERT.

The ERT technology has also advanced over time. During the implementation of PWP's water AMR program, 50Water ("50W") ERT communication modules were installed. Currently, Itron manufactures 100W+ ERT modules, which have longer battery life, data logging capabilities, and stronger antennas. Unlike previous modules, the 100W+ ERT can be reprogrammed to convert from mobile (AMR) to fixed network operations (advanced metering infrastructure or "AMI"). Should the City choose to implement an Itron AMI metering system in the future to provide customers with real-time data, these modules will not require replacement. All ERTs have a 10 year product warranty.

Utility meter readers currently collect bi-monthly residential meter reads through remote devices for billing purposes. Occasionally ERTs fail because of moisture or other obstructions in the meter box, or a temporarily blocked radio frequency. However, when an ERT fails repeatedly each billing cycle, it indicates a more permanent problem and the ERT must be replaced. When an ERT fails, meter reading staff must physically read the meter which is significantly more time consuming and less efficient. Based on current statistics, it has been determined that PWP's water meters are in the following condition:

Total water meters in service area	37,355
Meters with ERT technology	32,500
Meters with a defective ERT	9,764
ERTs under Itron warranty	8,533

The ERTs have been failing concurrently in significant numbers because the ERTs were installed simultaneously during the water AMR implementation program in 2005. A tracking and notification practice is being developed for detecting and correcting failed ERTs. Staff and financial resources are being prioritized among competing projects to address this issue.

In 2010 PWP changed meter vendors following a competitive bidding process. The new Badger Meter, Inc. meters have proven to be more compatible with the Itron ERT. It is anticipated that the updated ERT technology and the improved compatibility has mitigated future ERT failures.

Even though not all the defective ERTs are under warranty, Itron is honoring the replacement of all 9,764 ERTs to complete this project. There are 180 water meters currently installed with 100W or 100W+ ERT communication modules for which there will be no replacement cost to the City. The remaining 9,584 meters have 50W or 60W ERT modules and staff recommends replacing these with 100W+ ERT modules. Itron will discount the City the amount under warranty for each unit. Every replaced ERT is warranted for another 10 years.

In addition, it is assumed that approximately 10% of defective ERTs will also have a defective meter. This can only be verified once the ERT has been tested. Therefore, a cost has been added to replace defective meters with a new meter delivered with a new ERT. It is more efficient for Itron to do the replacements since they are already on site.

Itron's cost estimate is provided in Attachment 1 which includes labor and materials needed to replace each ERT and a mobilization fee. The water meter ERT replacement project will support any future City plans for monthly billing or AMI metering solutions.

Staff recommends that the City Council award a contract to Itron in the amount of \$802,725.48, which includes the cost estimate for the complete project and a 10% contingency for any necessary change orders. The unit cost for each ERT replacement is \$66.81 and for each meter replacement is \$243.65 to \$445.44, depending on the meter size. Itron's warranty has a value of \$948,816, thus under different circumstances it would cost the City approximately \$1,750,000 to replace the water meter ERTs. By awarding the contract to Itron, the City is benefiting from the warranty terms.

Itron will complete the project in approximately 12 weeks with oversight from PWP's Water Distribution Section and Water Meter Shop staff. A quality assurance/quality control ("QA/QC") procedure will be in place prior to initiating the project to ensure correct installation, accurate transmission of meter reads, and correct billing information. All data will be uploaded through hand-held devices and submitted electronically to eliminate errors in transferring data. Any construction work required for meter replacements will be completed under the supervision of the Water Meter Shop to minimize water loss.

The project is exempt from competitive bidding pursuant to City Charter Article X Section 1002 (C) - contracts for labor, materials, supplies, or services available from only one vendor. Itron is the only vendor manufacturing the proprietary ERT communication modules and it is incompatible with other AMR systems. Itron has two existing purchase order contracts with the City to support AMR metering for both water and electric meters. The combined amount of the orders is \$33,248 with a current available balance of \$6,668.

The project will meet the requirements of prevailing wage law under California Labor Code Sections 1720 through 1861 and Title 8 of the California Code of Regulations. Workers employed by the contractor will be paid the general prevailing rate of per diem wages as determined by the California Department of Industrial Relations.

#### **COUNCIL POLICY CONSIDERATION:**

The proposed contract supports the Department's Water System Master Plan adopted by the City Council in 2002 to allow for the replacement of water meters and establishment of reliable infrastructure for the City's water system.

#### **ENVIRONMENTAL ANALYSIS:**

The project is categorically exempt from CEQA review pursuant to State CEQA Guidelines Section 15302 (Replacement or Reconstruction). The exemption covers the repair, maintenance, or minor alteration of existing public or private facilities, including existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities, involving negligible or no expansion of use. The proposed project consists of replacing ERT modules with new models. No expansion of use is proposed.

**FISCAL IMPACT:**

The total cost of this action will be \$827,725.48. Funding for this action will be addressed by the utilization of existing appropriations in CIP #1002 - Meters and Services. It is anticipated that \$827,725.48 of the cost will be spent in fiscal year 2016. Indirect and support costs such as contract administration and QA/QC are anticipated to be \$25,000.

The following table presents a contract summary:

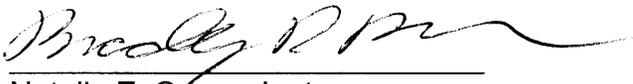
Contract Amount	\$729,749.53
Contingency	\$ 72,975.95
<b>Subtotal</b>	<b>\$802,725.48</b>
Contract Admin/ QA/QC	\$ 25,000.00
<b>Total Fiscal Impact</b>	<b>\$827,725.48</b>

The Water Distribution group in the Water Services Division will track the contract spending.

Respectfully submitted,

  
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