

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE WEDNESDAY, SEPTEMBER 7, 2016</b>
<b>FROM:</b>	<b>JOHN BRAAM, P. ENG MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>SUPPLY &amp; DELIVERY OF WATER METERS AND ERT's SINGLE SOURCE PROCUREMENT</b>

<b>RECOMMENDATION</b>
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That, on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer, the following actions **BE TAKEN** in respect to EMCO Waterworks Corporation Supply & Delivery of Water Meters and Electronic Radio Transmitters – Single Source Procurement:

- a) A Single Source contract with EMCO Corporation Waterworks **BE APPROVED** for the supply and delivery of 32,000 Electronic Radio Transmitters (ERT's) , at a value of \$2,368,000.00, plus HST, it being noted that this will be a single source contract in accordance with Section 14.4 (d) of the Procurement of Goods and Services Policy;
- b) A Single Source contract with EMCO Corporation Waterworks **BE APPROVED** for the supply and delivery of 32,000 Positive Displacement Cold Water Meters, at an estimated value of \$2,240,000.00, plus HST, it being noted that this will be a single source contract in accordance with Section 14.4 (d) of the Procurement of Goods and Services Policy;
- c) The funding for these purchases **BE APPROVED** as set out in the Source of Finance Report attached hereto as Appendix "A";
- d) The Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these contracts;
- e) The approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing purchase orders or contract record relating to the subject matter of this approval; and
- f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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- Civic Works Committee, September 9, 2015, Agenda Item #3: *EMCO Corporation Waterworks Supply & Delivery of Itron® Electronic Radio Transmitters Single Source Procurement (SS15-18)*
- *Administrative Approval of Tender Acceptance/Contract Award, T15-63 Supply & Delivery of Positive Displacement Cold Water Meters, July 27, 2015*
- *Water Meter and Meter Reading Strategy 2008 Recommendation Report, presented to ETC, December 8, 2008, Agenda Item #17*

## 2015-19 STRATEGIC PLAN

The following report supports the Council Strategic Plan through the strategic focus area of *Leading in Public Service*, by realizing substantial cost savings on Capital purchases that are required on continual annual basis, and providing enhanced customer service delivery.

## CONTEXT

The *Water Meter and Meter Reading Strategy 2008 Recommendation Report* indicated that 10,000 meters required replacement annually over a 10-year period to eliminate the backlog that, at the time, was resulting in approximately \$630,000 in lost revenue annually for the Water and Sewer Service Areas.

The Water Meter Replacement Program has replaced approximately 59% of the backlogged water meters to date. About 21,000 water meters remain overdue for replacement resulting in approximately \$210,000 in lost revenue annually for the Water and Sewer Service Areas. An additional 11,000 water meters are nearing their replacement date but require the installation of an ERT in order to function with the drive-by meter reading technology.

The Water Meter Replacement Program is slightly behind schedule. At the current pace, it will take approximately 4 years to complete the backlog, and an additional 2 years to completely implement the radio-read system.

Fast-tracking replacement of the remaining 32,000 water meters with new meters, including the ERT technology, could fulfil the Water Meter Replacement Program's objectives within a 2-year period. This action would: minimize the unaccounted for water losses due to worn, inaccurate meters; allow the City to fully convert to the drive-by meter reading system; reduce annual operating costs for meter reading; and, realize consistent and accurate monthly meter readings (which eliminates problems associated with estimated readings).

## BACKGROUND

### Discussion

The City of London has been installing ERT's for many years, as the equipment utilized for continued advancement of the drive-by meter reading technology. The Itron ERT manufacturer provides preferred versatility for mounting on many different meter manufacturer's devices, and fully synchronizes with London Hydro's systems for water and sewer billings, undertaken on behalf of the City of London.

In 2015, EMCO Corporation Waterworks successfully bid on the City's competitive tender call (T15-63) for positive displacement cold water meters. Similarly, through a competitive bidding process with the City, EMCO Waterworks Corporation was also awarded the contract to supply ERT's. At that time, it was recognized that EMCO and Itron had a unique business arrangement. Itron has established the City of London as a direct account and has registered the City of London with EMCO Waterworks Corporation. This arrangement excludes competitors to EMCO from purchasing Itron components for resale to the City of London.

Through the tender processes noted above, EMCO Waterworks Corporation entered into two distinct and separate 1-year contracts in September 2015, for the supply and delivery of ERT's, and for the supply and delivery of positive displacement cold water meters. Both contract awards included 4 additional, 1-year extension options. These contracts allow for the purchase of approximately 12,000 ERT's and meters annually.

Both contracts recognize and permit the escalation of costs in a prescribed format on an annual basis, subject to agreement by the City. The annual volume of these contracts were originally established to match the planned progress of the water meter replacement program.

The City has extended EMCO Waterworks Corporation's contracts for supplying water meters and of ERT's for 2017. If the City were to renew two additional extensions (through 2018 and 2019), then EMCO Waterworks Corporation would supply enough water meters to complete the Water Meter Replacement Program over that time frame, but at a substantial cost increase. There is an opportunity to realize significant cost savings by pre-purchasing the components now, prior to the price escalations normally encountered over a number of years due to standard rates of inflation and commodity market price increases typically experienced for metals (Brass). Over the last 4 years, we have seen prices for water meters increase by 20% for inflation/commodity, as well as 25% increase due to the Canadian dollar fluctuation, for a total price increase of 45% (\$56/meter in 2012 to \$82.50/meter 2016)

### **Financial Impact**

Funding for this expenditure is provided for in the annual capital budgets, EW1627-14, EW162716, EW1612-15, and EW161216. A source of financing is attached as Appendix "A".

The original 11 year life cycle for meter change-out was set based on the average residential consumption of 18 m<sup>3</sup> per month and the increasing block rate structure at that time. The current variable rate structure, along with decreasing average residential consumption (14 m<sup>3</sup> per month) has now extended the replacement frequency to 15 years. We are now in a situation in which the greatest cost savings that can be attained is through the automation of meter reading (converting to full drive-by). This means completing the change out program expeditiously will maximize financial benefits. We also have the added financial benefit of bulk ordering the meters and ERTs.

Current (2016/17) contracted prices for an ERT is \$87 per unit, and \$82.50 per unit for the water meter. The proposed bulk purchase reduces these costs to \$74 per ERT and \$70 per water meter. The combined savings for the 32,000 units purchased will be approximately \$816,000.

Taking advantage of a bulk pre-purchase positions the City to undertake the transition to a full drive-by meter read system within the next 2 years. Once the drive-by transition is complete (assuming near the end of 2018), expected annual operational and capital cost savings are estimated to be \$1,450,000, broken down as:

- 70% - 75% reduction in meter reading costs (~\$400,000);
- Reduced unaccounted for water loss, by increased meter accuracy (~\$50,000);
- Reduced water meter replacement frequency (~\$800,000 to \$1,000,000);
- Increased revenue of ~\$210,000 for the Water and Sewer Service Areas.

## **CONCLUSION**

The recommendations in this report to single source the bulk purchase of 32,000 water meters and ERT's will result in substantial cost savings to the City. These commodities have been planned to be purchased and installed. Contracts have been established with the vendor in order to supply these particular components, though over an extended period of time. A cost savings of \$816,000 results from the recommended purchases.

Depending on the rate of replacing 32,000 meters, other benefits would include:

- minimizing the unaccounted for water losses due to worn, inaccurate meters;

- full conversion to the drive-by meter reading system;
- reducing annual operating costs for meter reading;
- attaining sustainable levels for future meter replacements;
- stockpiled quantities at EMCO's local warehouse will eliminate periodic supply shortages;
- automated monthly meter readings, eliminating problems associated with estimated readings;
- customer's gain improved, highly accurate billing information as frequent estimated water meter readings will be eliminated; and
- allowing the *MyLondonHydro* web portal – Water Usage Tool to be fully utilized.

### Acknowledgements

This report was prepared by with input from Scott Koshowski, Environmental Service Engineer, Ian Harris, Procurement Specialist, and Chris Ginty, Procurement Officer.

<b>SUBMITTED BY:</b>	<b>REVIEWED &amp; CONCURRED BY:</b>
<b>JOHN SIMON, P.ENG., DIVISION MANAGER, WATER OPERATIONS</b>	<b>ANNA LISA BARBON, DIRECTOR, FINANCIALSERVICES</b>
<b>REVIEWED &amp; CONCURRED BY:</b>	<b>RECOMMENDED BY:</b>
<b>JOHN LUCAS, P.ENG., DIRECTOR, WATER and WASTEWATER</b>	<b>JOHN BRAAM, P.ENG., MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>

### Appendix A – Sources of Financing

cc John Freeman, Manager, Purchasing & Supply  
Chris Ginty, Procurement Officer, Purchasing & Supply  
EMCO Waterworks Corporation (London)  
Steve Irwin, Supervisor – Meter Shop, Water Operations  
Roland Welker – Division Manager, Water Engineering