

**Meeting date:** December 2, 2019

**Department:** Engineering & Public Works

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**Reviewed by:** Fred Tranquilli, Acting Chief Administrative Officer  
George Elliott, P.Eng., Director of Engineering & Public Works  
Joe Pilon, Director of Information Technology  
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**SUBJECT:** **Water Meter Technology and Replacement Award  
Report No. EPW 19-029**

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## **RECOMMENDATION:**

It is recommended:

1. That Council receive Report EPW 19-029 regarding the Water Meter Technology and Replacement award;
2. That Council approve the Automated Meter Reading and Water Meter Replacement Project for a total project cost of \$3,000,000;
3. That Council approve the award of Supply of Mobile Automated Meter Reading (AMR) Technology for Water Meters to Metercor Inc. for a cost of \$750,552.60 (excl HST);
4. That Council approve the award of the Supply and Installation of Water Meters including the AMR Transmitters supplied by Metercor Inc. to ICONIX Waterworks Limited Partnership for a cost of \$1,410,036.37 (excl HST), and
5. That Council approve the extension of the consulting services by Diameter Services to complete the Project Management Phase of the project for a cost of \$154,010.00 (excl HST).

## **BACKGROUND**

The Municipality of Strathroy-Caradoc uses individual water meters at each property location as part of the billing process for our water and wastewater system. Water meters are the “cash registers” of the water distribution and wastewater system. There are currently over 7,000 water meters installed in residential and commercial properties throughout the Municipality of Strathroy-Caradoc.

Each of the water meters are read monthly by having a meter reader attend at each property. This process requires having an individual walk to each meter and navigating various obstacles. The

current configuration also requires additional site visits by installation staff and can lead to several maintenance issues.

Of the Municipality's 7,000 meters almost 50% are more than fifteen years old and due for replacement. As water meters age, their accuracy fades and they under register flow rates. Older meters lead to lost revenues and increased maintenance costs.

There have been several metering technology advances in the water industry over the past few decades. For many years, a significant number of Municipalities have upgraded to install radio transmitters on their meters. Radio transmitters enable data to be collected by driving a vehicle through a neighborhood.

The installation of new meters, when paired with radio transmitters, allows for better data collection, additional information for the customer (leak detection, high flows), reduced maintenance costs, reduced data collection costs and higher levels of customer service.

The July 15<sup>th</sup>, 2019 Council meeting detailed the overarching goals of this project. These recommendations take into consideration the vision for the overall AMI/AMR project, technology expectations and installation delivery. The following table summarizes these goals and provides a description of the challenges faced currently.

Key Project Goals	Current Challenges to Address
Better Control Over Meter Reading and Billing Functions	<ul style="list-style-type: none"> <li>• Reduce billing estimates</li> <li>• Establish and monitor Key Performance Indicators</li> <li>• Information to support customer service and operational functions</li> <li>• Reduce meter reading costs and costly final reads</li> </ul>
Improve Meter Maintenance	<ul style="list-style-type: none"> <li>• Water meter age is leading to billing inaccuracies and lost revenue</li> <li>• Current technology leads to inaccurate readings and billing issues</li> <li>• Almost 99% of the existing meters are low resolution</li> <li>• Reduce non-revenue water</li> <li>• Installations requires multiple visits</li> <li>• No ability to detect theft/tamper</li> <li>• Mitigate existing maintenance issues particularly wiring issues</li> </ul>
Enhance Customer Service Experience	<ul style="list-style-type: none"> <li>• Unable to provide first call resolution service</li> <li>• Ensure customers are billed accurately</li> <li>• Instantaneous access to data to support customer inquiries</li> </ul>

The award of the above mentioned contracts will achieve these goals.

**COMMENTS**

The Municipality posted two separate Request for Proposals (RFP) for the different components of the project through the Bids & Tenders Website. The first RFP, Supply of Mobile Automated Meter Reading (AMR) Technology, was posted on August 27, 2019. The second RFP, Water Meter and Installation, was posted on October 9, 2019. Each bid was initially reviewed and scored based on a technical

evaluation. If a Proposal did not meet the minimum score on the technical portion, the pricing proposal was returned to the bidder unopened. The technical and price scores were combined resulting in a final score for the submitted proposal and the proposal ranked accordingly.

**Supply of Mobile Automated Meter Reading Technology (Radio Readers) for Water Meters**

This first RFP was well circulated resulting in 7 bid takers. The RFP closed on September 13, 2019 with 6 proposals being received.

The results are summarized in the table below.

Vendor Name	Ranking	Score out of 100
Metercor Inc.	1	90.9
Evans Utility & Municipal Products Supply Ltd.	2	84.4
Wolseley Canada Inc.	3	82.5
KTI Limited	4	72.3
ICONIX Waterworks Limited Partnership	5	52.0
ICONIX Waterworks Limited Partnership (Alternative Bid)	DNM	-

DNM - Proposal did not meet minimum technical threshold of 50%

**Supply and Install of Water Meters including Install of Radio Readers**

This second RFP was well circulated resulting in 6 bid takers. The RFP closed on November 1, 2019 with 6 proposals being received.

The results are summarized in the table below.

Vendor Name	Ranking	Score out of 100
ICONIX Waterworks Limited Partnership	1	86.6
ICONIX Waterworks Limited Partnership (Alternative Bid)	2	84.4
Neptune Technology Group Canada Co.	3	80.1
KTI Limited	DNM	-
Metercor Inc.	DNM	-
Metercor Inc. (Alternative Bid)	DNM	-

DNM - Proposal did not meet minimum technical threshold of 60%

**Project Schedule**

The timeline shown below was established for the project. The works are slightly ahead of schedule and remain on target to commence in February 2020 and completed before the end of 2020.

**Project Timeline (based on 2 RFP procurements)**

- July 22 to August 26 Preparation of RFP documentation
- September 13 AMR RFP Closes
- September 30 Completion of AMR RFP evaluation
- October 9 Release Meter/Installation RFP
- November 1 Close Meter/Installation RFP
- November 20 Completion of Meter/Installation RFP evaluation
- December 16 Report to Council for approval (2 weeks ahead of schedule)
- January, 2020 Finalize Contracts with Vendors and Project Start
- Feb to Nov, 2020 Installation of radio transmitters and meters
- December, 2020 Project Wrap-up

**FINANCIAL CONSIDERATIONS**

The Council report of July 15, 2019 identified a project cost of approximately \$2,750,000. The breakdown of expenditures including an allowance for related curb stop repairs is detailed below:

- Supply of AMR Technology (Metercor Inc.) \$ 751,000
- Meter Supply and Installation (ICONIX Waterworks) \$ 1,410,000
- Project Management (Diameter Services) \$ 154,000
- Meter Evaluation and Tendering (Diameter Services) \$ 76,000
- Curb Stop Repair Allowance \$ 259,000
- Contingency, Billing System Changes, 1.76% HST \$ 350,000

**Total Required Budget \$ 3,000,000**

The contingency allowance is included in the event additional third party inspections are required to ensure quality control, should any issues arise.

**CONSULTATION**

The preparation of this report and recommendation was completed in consultation with:

- Acting Chief Administrative Officer
- Director of Engineering and Public Works
- Director of Financial Services
- Director of Information Technology
- Diameter Meter Services

**ATTACHMENTS**

None