



## STAFF REPORT ACTION REQUIRED

### Request for Proposal (RFP) 0713-08-0001: Water Meter Replacement and Automated Meter Reading System

<b>Date:</b>	May 21, 2008
<b>To:</b>	Public Works and Infrastructure Committee
<b>From:</b>	Deputy City Manager, Citizen Focused Service Cluster B Deputy City Manager and Chief Financial Officer Acting Director, Purchasing and Materials Management
<b>Wards:</b>	All
<b>Reference Number:</b>	P:\2008\Cluster B\TW\pw08010 (AFS#6542)

#### SUMMARY

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This report provides information on the results of RFP 0713-08-0001, for Water Meter Replacement and an Automated Meter Reading (AMR) System, and seeks authority for City staff to negotiate with the preferred proponent, Neptune Technology Group, (Canada), to supply and deliver water meters and an automated reading system as specified in RFP 0713-08-0001.

#### RECOMMENDATIONS

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**The General Manager Toronto Water, Deputy City Manager, Deputy City Manager and Chief Financial Officer, and the Acting Director of Purchasing and Materials Management recommend that:**

1. Council authorize the General Manager of Toronto Water and the Treasurer to negotiate and enter into an agreement, in a form satisfactory to the City Solicitor, with Neptune Technology Group (Canada) Limited in the total amount of \$191,756,663.14, net of GST including provisional items for the Water Meter Replacement and Automated Meter Reading (AMR) System project as specified in RFP 0713-08-0001;

2. An upset limit of funds required to finance the Water Meter Replacement and Automated Meter Reading System project be set at \$219 million (net of GST), including contingency, provisional item and inflationary indexing for labour and materials over the implementation period of six years. The funding requirements per year are in Attachment 2, Table 2; and
3. Additional funding required to bring the total project cost for the Water Meter Replacement and Automated Meter Reading System project from \$176.5 million (which is currently included in Toronto Water's 2008 to 2017 Capital Program) to \$219 million (net of GST but including contingency, provisional items and inflationary indexing for labour and materials over the implementation period of six years) to be included within Toronto Water's 2009 Capital Budget submission.

## **Financial Impact**

Comprehensive research and analysis undertaken in 2001 established that the City's water meters are very old, have exceeded their useful life, and are performing well below industry standards. The study also established that current methods utilized by the City to gather metered water readings are labour intensive, inefficient and costly to maintain, as compared to the more modern reading technologies.

Toronto Water's approved 2008- 2017 Capital Program includes \$176.5 million for the Water Meter Replacement and Automated Meter Reading System project originally approved by Council in October 2002. Based on current market conditions, additional funds of \$42.5 million are required to finance this project. These funds will be included within the Toronto Water's 2009 Capital Budget submission, bringing the total capital budget for the project to \$219 million including contingency, provisional items and inflationary indexing for labour and materials over the implementation period of six years as outlined in Attachment 1 (net of GST). The funding requirements per year are in Attachment 2, Table 2.

The revised capital budget estimate of \$219 million provides for: i) replacing the city's existing aged water meters while simultaneously installing an automated radio frequency-based meter reading system; and, ii) installing water meters in the flat rate accounts in former Toronto and Etobicoke.

Given that financial benefits of approximately \$33 million per year will be realized once the system is fully implemented through a combination of additional revenues (associated with the replacement of the City's aging meters) and operating efficiencies (associated with the implementation of an automated, radio frequency-based reading system), this investment in meter replacement and an automated reading system will pay for itself in approximately 7 years (based on projected water rate increases approved in principle by Council for the next six years). It is projected that when the upgrade of the high volume meters is completed, within the first three (3) years of the project, the City will be able to recover an estimated \$24 million in revenue per year, resulting from the more accurate registration of water consumption. An additional \$4 million in revenue recovery is

expected from the upgrade of the low volume metered accounts. A further \$5.0 million per year is projected in operating savings through the installation and use of the radio frequency-based meter reading technology.

Attachment 2 of this report summarizes the updated business case and the capital cash-flow requirements for this project over the six-year implementation period. As with any capital initiative of this magnitude, the project will be monitored and reviewed on an annual basis from both an implementation and cash-flow perspective. Any variances from the plan will be addressed through the annual Capital Budget process.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## **DECISION HISTORY**

In October 1999, Council approved a Capital Project (i.e. Universal Metering Program – UMP) in the amount of \$21 million to install water meters in the City’s flat rate water accounts (approximately 72,000 accounts) and directed staff to research and report back on financing options for automated meter reading technologies.

Recognizing the significant size of the meter installation required under the UMP, in April 2001 Council approved recommendations allowing the planning of the UMP to be integrated into an overall metering study. Based on the results and outcomes of the metering study, Council at various meetings held between October 2002 and October 2004, adopted a number of recommendations and motions allowing for the replacement of the City’s aging water meters and the simultaneous installation of a Fixed Area Network (FAN) automated meter reading system.

At its meeting of September 25, 26 and 27, 2006, City Council authorized staff to proceed with a Request for Proposal (RFP) process for the procurement of water meters and a Fixed Area Network radio frequency-based automated water meter reading system for the City. Accordingly Request for Proposal No. 0713-06-0233 was issued on February 2, 2007 and closed on April 16, 2007. Given that the only compliant proposal received in response to the RFP exceeded the approved budget for the project, the RFP was cancelled and Council authorized staff to proceed with a new procurement process incorporating certain revised terms and conditions.

Below are the links to the relevant reports and Council decisions:

<Q:\2002\Standing\Policy\Clauses\200214-013.pfc.doc>

<Q:\2003\Standing\Policy\clauses\200304-008.pfc.doc>

<Q:\2003\Standing\Works\clauses\200307-010.wcc.doc>

<Q:\2004\Standing\Policy\Clauses\200406-002.pfc.doc>

## **ISSUE BACKGROUND**

The need for a systematic, city-wide water meter replacement program coupled with the concurrent installation of an automated meter reading technology (i.e. a radio frequency based Fixed Area Network) was supported by comprehensive research and analysis, undertaken over a three year period, that clearly established that the City's:

- a) meters (both high and low volume meters) are old and require immediate overhaul/replacement; and,
- b) current meter reading methods are fragmented (i.e. meters are still being read based on the various methods inherited from the former municipalities), inefficient and costly to maintain.

Based on 2006 total water consumption and 2007 water rates, the City is losing approximately \$28 million per year due to its aging water meter infrastructure. The amount of annual revenue loss will continue to increase, with increases in the water rate, until such time as the meters are replaced.

## **2008 PROCUREMENT COMMENTS**

Request for Proposal No. 0713-08-0001 was issued on January 2, 2008 and this RFP was advertised on the City of Toronto's Internet Website. The RFP closed on March 17, 2008.

Two (2) complete proposals were received for the Meter Replacement and Automated Meter Reading System:

1. Asplundh Canada ULC dba VSI Meter Services;
2. Neptune Technology Group (Canada) Limited; and

The two complete proposals were compliant with the City's terms and conditions and were evaluated by the City's Evaluation Team on technical and financial criteria that were established in the RFP. Both of these proposals surpassed the minimum technical scoring requirement stated in the RFP. The proposal received from Neptune Technology Group (Canada) Limited was determined by the City's Evaluation Team to be the higher ranking proposal from a technical perspective.

Proponent scores by criteria, price comparison, and a staff analysis of the evaluation results can be provided in an in-camera presentation if requested by Committee Members.

The Fair Wage Office has reported that the recommended firm has indicated that it reviewed and understands the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

To enhance the quality and integrity of the RFP process for this project, KPMG LLP (“KPMG”) was retained to monitor, from a fairness perspective, the procurement process with respect to the City’s Water Meter Replacement and Automated Meter Reading System project (see Attachment 3). Additionally, staff from the City’s Internal Audit Division were involved in the development of the RFP document and reviewed the evaluation process.

Both proposals exceed the approved Capital Budget for this project of \$176.5 million. However, staff, working in conjunction with EMA Canada (Project Consultant), have reviewed the approved capital budget for this project taking into account current meter installation practices and market pricing, the possible changes in the commodity price index (e.g. the rising price of copper) as well as inflation risk over the duration of the project (see attachment 2).

There are a number of factors that have impacted the cost of the project since the business case was developed in 2002. Toronto Water has changed its meter installation practices to reflect the current standards of good repair recommended by the American Water Works Association (AWWA), which has increased the cost of the proposed work. Also, the price of copper has increased threefold over the last four years directly impacting the cost of meter installations [i.e. the cost of plumbing supplies required to support the installation of water meters, as per Statistics Canada, Industrial Price Index (July 2003 to July 2007)]. In addition to annual inflationary increases, labour and installation costs have also increased as result of provincial regulations requiring that water meter installers be certified.

A number of alterations were made to this 2008 RFP from the previous RFP that were expected to decrease the overall cost of the project. These changes included: shortening the implementation from 8 years to 6 years; removal of the requirement for almost all new meter bypasses, allowing prices to be adjusted annually according to industry accepted indexes for copper and the Canadian dollar; allowing prices to change according to the City fair wage policy; capping indemnification and liability: capping the bonds; and allowing flexibility in some of the City’s terms and conditions. These changes have resulted in \$45 million in savings, including projected adjustments for unit price indexing (not including contingency and GST).

Based on current market conditions, a realistic budget for this project would be \$219 million net of GST and including a contingency allowance, provisional items and inflationary indexing for the overall project.

Considering the benefits of universal metering, restoration of fair metering for all customers, revenue recovery of approximately \$28 million per year (based on 2007 actual water revenue and excluding any water rate increases for 2008 and later years), and efficiency savings of approximately \$5 million per year once the project is fully implemented (based on 2008 operating budget estimates), this project has a payback period of approximately seven (7) years (based on current water rates increasing over the duration of the project) and remains a good business decision for the City. If the City’s

water rates remain at the current rate and assuming no increases over the next six years, this project would have a payback period of approximately (9) years.

Based on staff's analysis of current market conditions, and the comprehensive evaluation process undertaken, it is recommended that negotiations commence with Neptune Technology Group (Canada), having the highest total score, in order to enter into a binding agreement for the supply and installation of water meters and an automated reading system as specified in RFP 0713-08-0001.

## CONTACTS

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## SIGNATURE

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Deputy City Manager

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Joseph P. Pennachetti  
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Victor Tryl, Acting Director,  
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## ATTACHMENTS

Attachment 1: Contingency and Index Analysis (p:\2008\Cluster B\TW\pw08010-1)

Attachment 2: Revised Business Case and Cash-flow Analysis (p:\2008\Cluster B\TW\pw08010-2)

Attachment 3: Report from KPMG, Fairness Monitor (p:\2008\Cluster B\TW\pw08010-3)