

Clause embodied in Report No. 4 of the Policy and Finance Committee, as adopted by the Council of the City of Toronto at its meeting on May 18, 19 and 20, 2004.

## 11

**Provision of Professional Services to Provide Energy and  
Water Efficiency Improvements in City's Arenas,  
Request for Proposal No. 9119-03-7275**

*(City Council on May 18, 19 and 20, 2004, adopted this Clause, without amendment.)*

**The Policy and Finance Committee recommends the adoption of the recommendation of the Administration Committee contained in the following communication (April 30, 2004) from the City Clerk:**

Recommendations:

The Administration Committee recommends to the Policy and Finance Committee and City Council the adoption of the report (April 25, 2004) from the Commissioner of Corporate Services, the Commissioner of Economic Development, Culture and Tourism and the Chief Financial Officer and Treasurer.

Background:

The Administration Committee, at its meeting on April 29, 2004, gave consideration to a report (April 24, 2004) from the Commissioner of Corporate Services, the Commissioner of Economic Development, Culture and Tourism and the Chief Financial Officer and Treasurer advising on the results of the Request for Proposal (RFP) and obtaining authorization for the Commissioner of Corporate Services and the Commissioner of Economic Development Culture and Tourism in consultation with the Chief Financial Officer and Treasurer and the City Solicitor, to negotiate and enter into an energy and water services agreement with Vestar Ltd., and where applicable the appropriate Boards of Management, and leaseholders, to undertake energy and water efficiency improvements in the City's arenas, and submitting recommendations with regard thereto.

---

(Joint report dated April 25, 2004, addressed  
to the Administration Committee, from the  
Commissioners of Corporate Services, Economic  
Development, Culture and Tourism, and the  
Chief Financial Officer and Treasurer)

Purpose:

To advise on the results of the Request for Proposal (RFP) No. 9119-03-7275 and to obtain authorization for the Commissioner of Corporate Services and the Commissioner of Economic Development Culture and Tourism in consultation with the Chief Financial Officer and Treasurer and the City Solicitor to negotiate and enter into an energy and water services agreement with Vestar Ltd., and where applicable the appropriate Boards of Management, and leaseholders, to undertake energy and water efficiency improvements in the City's arenas.

Financial Implications and Impact Statement :

The estimated gross capital costs as submitted by Vestar Ltd., to undertake proposed energy and water efficiency retrofits in 100 of the City's 102 arena facilities is \$10,212,964.00 (including an energy savings guarantee premium of \$667,000.00 and PST). After including projected incentives and rebates, the net capital costs requiring financing are estimated to be \$10,085,647.00. It is anticipated that \$1,200,000.00 in cash flow funding will be required in 2004, \$5,900,000.00 in 2005, with the remaining \$3,112,964.00 being spent in 2006.

It is being recommended that the project be funded through the issuance of a 10-year debenture (\$7.564 million) and a FCM GMIF low-interest loan (\$2.521 million), with total estimated debt service charges of approximately \$1.28 million annually to be paid from energy and water savings allocated within the operating budgets of Parks and Recreation, the Arena Boards of Management, and by agreement with the operators of the leased arenas.

The City has received approval for a \$8.75 million loan from the Federation of Canadian Municipalities (FCM), through the Green Municipal Investment Fund, for its energy and water capital retrofit work. These loans are to be repaid at a rate of 1.5 percent below the Government of Canada bond rate, or 3.18 percent at present. The Facilities and Real Estate Division of Corporate Services proposes to apply \$2.52 million of this loan to the City Arenas energy and water retrofit project, \$1.4 million to the energy retrofit project in the Civic Centres and the balance of \$4.83 million to future energy and water retrofit projects such as in City pools and community centres.

Debt service costs for the repayment of principal and interest will be funded from guaranteed energy and water cost savings. Therefore there will be no net operating budget impact resulting from the arena energy and water retrofits project, although future capital replacement plans may be altered as a result. The vendor will fully guarantee the targeted energy and water savings for a fee of 7 percent of the project costs which equates to approximately \$667,000.00. This fee has been included in the project cost estimate.

An estimated 19 percent reduction in energy and water consumption as a result of this project should result in annual net savings of \$1.35 million with a simple payback period of 7.23 years.

Recommendations:

It is recommended that:

- (1) Council approve the Arenas Energy and Water Retrofit Project as a subproject of the \$20 million Energy Retrofit Program to be managed as part of the Parks and Recreation Capital program with a project cost of \$10.213 million gross including cash flow of \$1.2 million in 2004, \$5.9 million in 2005, and \$3.113 million in 2006, financed in 2004 by \$0.3 million of the Federation of Canadian Municipalities (FCM) loan and \$0.9 million of debt, in 2005 by \$1.475 million of the FCM loan and \$4.425 million of debt, and in 2006 by \$0.127 million in grants and incentives, \$0.746 million of FCM loan and \$2.239 million of debt;
- (2) the Commissioner of Corporate Services and the Commissioner of Economic Development Culture and Tourism in consultation with the Chief Financial Officer and Treasurer, and the City Solicitor, be authorized to negotiate and enter into an energy and water services agreement commencing in 2004 with Vestar Ltd., the highest overall scoring proponent meeting requirements based on a maximum simple payback period of 8 years for up to \$10,212,964 in gross capital costs inclusive of all taxes and charges;
- (3) the Commissioner of Corporate Services and the Commissioner of Economic Development Culture and Tourism in consultation with the Chief Financial Officer and Treasurer and the City Solicitor, be authorized to enter into energy and water services agreements with the Boards of Management and with lessors of City arenas that opt in to the program to ensure that the energy and water savings are applied towards debt repayment;
- (4) the Commissioner of Corporate Services, in consultation with the City Solicitor, the Chief Financial Officer and Treasurer and the Chief Administrative Officer, be authorized to enter into a loan agreement with the Federation of Canadian Municipalities for Green Municipal Investment Fund (GMIF) financing in order to facilitate a disbursement of approximately \$2.521 million from an approved low interest \$8.750 million loan to the arenas energy and water retrofit project subject to finalizing an energy and water services agreement with Vestar Ltd.;
- (5) energy and water cost savings to be realized annually of up to \$0.350 million in 2005, \$1.0 million in 2006 and \$1.35 million in 2007, for a full annual savings of \$1.35 million be budgeted separately in the operating budgets of Parks and Recreation and other arena facilities and used to fund the full debt service costs of the projects and that any excess savings annually be contributed to a separate corporate account according to the policy adopted by Council in the report entitled "A Framework for Establishing an Energy Retrofit Program and Financing Strategy";
- (6) this report be forwarded to the Policy and Finance Committee for consideration; and

- (7) the appropriate City Officials be authorized and directed to take any necessary action to give effect thereto including the execution of any financing agreements in a form and substance satisfactory to the Commissioner of Corporate Services, Commissioner of Economic Development Culture and Tourism, the Chief Financial Officer and Treasurer, and the City Solicitor.

Background:

In April 2000, City Council adopted Report No. 4, Clause 7, the Environmental Plan (EP), a comprehensive document containing sixty-six (66) recommendations on land, air, water, governance, sustainability, energy, transportation, green economic development and monitoring. The following energy goals/targets are included in the EP:

- (i) a 20 percent reduction in carbon dioxide (CO<sub>2</sub>) emissions by 2005 from 1990 levels; and
- (ii) departments to reduce energy use in their operations and in City buildings and facilities by at least 15 percent by 2005.

By adoption of Report No. 6, Clause 3 of the Policy and Finance Committee on April 16, 17 and 18, 2002, Council directed that:

- “(2) The Commissioner of Corporate Services co-ordinate the implementation of water and energy retrofits for City-owned buildings and facilities, consult with the Commissioner of Works and Emergency Services during this process, and:
  - (b) with the City Purchasing Agent and appropriate Commissioners, be authorized to issue competitive calls and manage the bid process, for water and energy retrofit services.
- (3) The Chief Financial Officer and Treasurer with appropriate Commissioners:
  - (a) obtain prior Council approval to enter into water and energy retrofit contracts that exceed existing delegated signing authorities;
  - (c) where possible, develop self-financing arrangements through water and energy savings derived from the water and energy retrofits;”

Subsequently, by adoption of Report No. 2, Clause 1 of the Administration Committee, at its meeting of February 4, 5 and 6, 2003, Council approved the Energy Management Program (EMP) for City facilities.

The approved recommendations include:

- “(2) the Energy and Waste Management Office (EWMO) within the Business and Strategic Innovation Section of the Facilities and Real Estate Division of the Corporate Services Department be recognized as having responsibility for the management of the City’s water and energy purchases, for the implementation of the City’s water and energy

efficiency/retrofit programs and for the tracking and monitoring of water and energy usage in the City to support the purchasing and water and energy efficiency program.”

By adoption of Report No. 9, Clause 29 of the Administration Committee on September 22, 23, 24 and 25, 2003 Council approved the following recommendation regarding savings resulting from water and energy retrofit projects:

“(3) as a matter of policy, annual program budgets be adjusted, after repayment of any required financing, to reflect savings derived from water and energy retrofit projects in City buildings and facilities, and these funds be set aside in a separate account pending Council determination of how they are to be used.”

Report No. 9, Clause 81(a) of the Policy and Finance Committee from the Chief Administrative Officer regarding the City’s applications made to the Federation of Canadian Municipalities (FCM) Green Municipal Funds was received by City Council at its meeting September 22, 23, 24 and 25, 2003. This report included a reference to an application for a \$5 million loan from the Green Municipal Investment Fund to be used towards water and energy retrofit projects in City facilities. This loan was subsequently approved by FCM in the amount of \$8.75 million.

This project meets the financial criteria and guidelines as set out in the report entitled, “A Framework for Establishing an Energy Retrofit Program and Financing Strategy” as adopted by the Budget Advisory Committee at its meeting on April 8, 2004 and as amended by the Policy and Finance Committee at its meeting in April 13, 2004.

#### Comments:

##### Request for Proposal:

Seventy-two (72) firms comprised of thirty-three (33) from the City’s bidders list and thirty-nine (39) firms that were known to specialize in water and energy management were notified and invited to submit proposals to provide energy and water efficiency improvements in a total of 100 arenas including 9 Board of Management (BOM) operated arenas of which 2 are leased facilities. The Request for Proposal (RFP) was also advertised on the City’s internet website. This resulted in a total of seven (7) submissions being received and opened on August 27, 2003 from the following firms:

- (1) Ameresco Canada Inc.
- (2) Ecosystem Energy Services / ICLEI Energy Services / Efficiency Engineering Inc.
- (3) MCW Custom Energy Solutions Ltd.
- (4) Northern Lite Technology Group
- (5) Siemens Building Technologies Ltd.
- (6) Toronto Hydro Energy Services Inc.
- (7) Vestar Ltd.

The RFP directed the Energy Management Firms (EMF) to provide a proposal in a prescribed manner outlining their methodology, fees and options for the City to finance the contemplated work.

An evaluation committee comprised of staff from the Corporate Services Department, Facilities and Real Estate Division, Economic Development Culture and Tourism Department, Parks and Recreation Division, Works and Emergency Services Department, Technical Services Division and Finance evaluated the proposal submissions according to the following criteria: firm experience, financial strength/costs, technical information, implementation approach and staff experience. Proponents were required to achieve a minimum score of seventy per cent (70 percent) in order to progress to the final stage of the evaluation process that consisted of an interview. Four (4) of the seven (7) proposals met the minimum threshold of 70 percent and moved on to the interview stage with scores ranging from 76.2 percent - 85.3 percent. The proponents that met the minimum threshold of 70% were: Ecosystem Energy Services / ICLEI Energy Services / Efficiency Engineering Inc., MCW Custom Energy Solutions Ltd., Toronto Hydro Energy Services Inc. and Vestar Ltd.

As stated in the RFP, the City reserved the right to limit interviews to a number of the top scoring proponents. The evaluation committee therefore determined they would interview the top two (2) scoring proponents: MCW Custom Energy Solutions Ltd., and Vestar Ltd.

Following the evaluation process, the evaluation committee concluded that a water and energy services agreement be negotiated and awarded to Vestar Ltd, the highest overall scoring Proponent meeting the requirements of the RFP. Vestar Ltd. has had extensive experience in the water and energy management business and its proposal demonstrates its ability to maximize the benefits to the City of Toronto.

#### Energy Retrofits:

Included in the scope of work are the water and energy retrofit of 91 Parks and Recreation indoor and outdoor arenas, 7 Board of Management arenas, and 2 leased arenas located throughout the City of Toronto. The following potential improvements have been identified in these facilities: improved heating and ventilation, ice temperature and brine pump underfloor heating control, brine pump insulation, lighting retrofits, low emissivity ceilings, water conservation and other measures. Vestar Ltd. has proposed to implement all measures on a turnkey basis that includes the energy audit, engineering, installation, project management commissioning and staff training. There may be some minor service disruptions; however, normal seasonal shutdown periods will be utilized whenever possible. Staff will review all projects to ensure that the planned water and energy efficiency measures avoid premature retirement of arena assets and furthermore that they all complement the capital program. Also, any incremental maintenance or operational costs arising from the proposed retrofit changes will be reviewed and assessed to determine significant impacts and ensure they can be accommodated, prior to proceeding with the project.

The total estimated net costs of the project are \$10,085,647.00 (net of projected incentives and grants of \$127,317.00). In 2001, the total water and energy consumption for the 100 City arenas was 106,180.5 Mwh with a total cost of \$7,096,600.00. An estimated 19 percent reduction in water and energy consumption as a result of this project should result in annual savings of approximately \$1.35 million and a simple payback period of 7.23 years. It should be noted that the City has in the past completed many water and energy efficiency improvements in its facilities. The water and energy savings with the shorter payback periods have already been

realized. Taking this next step in water and energy savings requires larger investments and longer payback periods.

Vestar Ltd. has proposed to provide a turnkey energy management package, which includes feasibility studies, engineering and specifications, construction, project management, financing, monitoring and verification of savings, and training of City of Toronto staff. It should be noted that as the City has determined that it can provide financing as proposed in this report at a lower cost, it has been agreed that financing will not be a part of the Vestar contract. The project is to be undertaken as a savings financed project that will recover all capital and financing costs through the actual water and energy savings being realized.

An energy and water services contract between the City of Toronto and Vestar Ltd. will clearly define the project requirements.

Further benefits will result from moving forward with the proposed energy and water retrofits including reduced operating costs, increased energy and water efficiency, facility improvements and reduced CO2 emissions. To complement the planned energy and water retrofits, the vendor and the Energy and Waste Management Office (EWMO) in consultation with the Economic Development, Culture and Tourism (EDCT) Department, Parks and Recreation Division will develop a communications program for EDCT Parks and Recreation staff in order to create awareness and to increase the potential energy and water savings in the City of Toronto arenas.

The recent blackouts and strain on the Province's electrical system has caused everyone to look for opportunities to reduce water and energy consumption. Not only do conservation and efficiency improvements ease electricity shortages by reducing demand, but they also cut smog and air pollution by reducing the amount of coal, gas and oil that is burned.

#### Project Funding:

It is proposed that funding for this project be allocated from the \$20 million Energy Retrofit Program rather than via the vendor's financier. It is recommended that funding for this project be obtained through the issuance of 10-year debentures. At present, the debenture rate is 4.68 percent. Borrowing through the vendor's financier (Capital Underwriters Corporation) at a rate of 6.05 percent would result in projected savings from City debenture financing of \$56,300.00 annually - or \$563,000.00 over the 10-year term of the debenture. The energy and water retrofit project will be self-financed from energy and water cost savings over a 10-year period.

Water and energy cost savings will be sufficient to offset debt charges resulting from the issuance of debentures. As a result, there will be no negative impact on the Parks and Recreation and other operating budgets. The City of Toronto's interests will be protected since the water and energy savings of the project will be fully guaranteed by Vestar Ltd. If the actual water and energy savings are less than projected, then Vestar Ltd. will cover the shortfall. The cost to the City of fully guaranteeing the water and energy savings is 7 percent of the cost of the project which equates to about \$667,000.00. Annual water and energy savings of about \$1.35 million are expected once all of the water and energy retrofits have been completed in 2007. (See table below.)

The City has been granted a \$8.75 million loan from the Federation of Canadian Municipalities (FCM) for its water and energy retrofit capital work. These loans are at a rate of 1.5% below the Government of Canada bond rate. At present, this equates to an effective interest rate of about 3.18%. \$2.52 million of this loan is to be allocated to the City arenas water and energy retrofit project. \$1.4 million of the remaining \$6.23 million will be used for the water and energy retrofit project in the Civic Centres and the balance of \$4.83 million will be allocated to future water and energy retrofit projects such as in City pools and community centres. The remaining costs of the project will be financed through the issuance of debentures. Below is a summary of the projected capital and operating cash flows for the recommended project.

<b>Arenas Energy Retrofit Project</b> <b>Cash Flow Forecast for 2004-2008</b> in \$000's					
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b><u>Capital Budget - Expenditures</u></b>					
Energy Retrofit Costs	1,200	5,900	3,113	-	-
<b><u>Capital Budget - Financing</u></b>					
Grants/Incentives	-	-	127	-	-
FCM Low-Interest Loan	300	1,475	747	0	0
Debenture Proceeds	900	4,425	2,240	0	0
<b>Total Financing</b>	<b>1,200</b>	<b>5,900</b>	<b>3,113</b>	<b>-</b>	<b>-</b>
<b><u>Operating Budget Impact</u></b>					
FCM Low-Interest Loan Charges	0	35	210	298	298
Debt Charges	0	117	691	981	981
<b>Total debt service charges</b>	<b>0</b>	<b>152</b>	<b>901</b>	<b>1,279</b>	<b>1,279</b>
<b>Projected Energy Savings</b>	<b>0</b>	<b>350</b>	<b>1,000</b>	<b>1,350</b>	<b>1,350</b>
<b>Operating Budget Costs/ (Savings)</b>	<b>0</b>	<b>(198)</b>	<b>(99)</b>	<b>(71)</b>	<b>(71)</b>

City staff along with Vestar Ltd. will be looking for and applying for any potential incentives and grants that could reduce the overall cost of water and energy retrofits to the City. Incentive programs are currently available from Enbridge's demand side management program and from the Federal Government under various programs. Based on the proposed retrofit program, total rebates and incentives are projected to be \$127,317 and have been utilized to reduce gross capital costs in 2006.

This project meets the financial criteria and guidelines as set out in the report entitled "A Framework for Establishing an Energy Retrofit Program and Financing Strategy" as adopted by the Budget Advisory Committee at its meeting on April 8, 2004, as amended by the Policy and Finance Committee at its meeting in April 13, 2004 and adopted by Council at its meeting of April 19 to 24, 2004.

### Energy Services Agreement:

A draft energy services agreement was included with the RFP as a basis for implementing the energy and water efficiency measures. It is recommended that the Commissioners of Corporate Services and Economic Development Culture and Tourism Departments in consultation with the City Solicitor and the Chief Financial Officer and Treasurer negotiate and enter into an energy and water services agreement with Vestar Ltd. for a maximum simple payback period of 8 years, commencing in the year the work is completed. The energy and water services agreement lays out all the terms and conditions for completing the work including fees, insurance, bonding and other terms required to protect the interests of the City.

The parameters of this agreement would be as follows:

- (a) Vestar Ltd. will be responsible for all design, engineering, construction, project management and monitoring and verification of savings.
- (b) The maximum average simple payback period for the project is 8 years.
- (c) Prior to project implementation Vestar Ltd. will conduct feasibility studies and provide detailed concept report for each measure for the City's approval. The concept report will outline, in detail, the costs, savings, operating costs and maintenance requirements for each measure. Prior to moving to the engineering and implementation stage, the City must approve a concept report for each site.
- (d) Vestar Ltd. will provide guarantees, insurance and bonding commitments to the satisfaction of the Commissioner of Corporate Services, Economic Development, Culture and Tourism and the Chief Financial Officer and Treasurer.

The Arena Boards of Management, the Lakeshore Lions Arena and the Weston Lions Arena will be required to enter into separate agreements with the City to ensure that energy and water cost savings are applied towards debt repayment should they wish to participate in the energy and water retrofit project.

The Fair Wage Office has reported that the recommended firm has indicated that they have reviewed and understand the Fair Wage Policy and Labour Trades Requirements and has agreed to comply fully.

### Conclusions:

The proposal submitted by Vestar Ltd. will allow the City to move ahead with water and energy conservation work in City arenas. This report recommends that authority be granted to the Commissioners of Corporate Services and Economic Development Culture and Tourism Departments in consultation with the City Solicitor and the Chief Financial Officer and Treasurer, and where applicable the appropriate Boards of Management and leaseholders, to negotiate and enter into a water and energy services agreement with Vestar Ltd., the highest overall scoring Proponent meeting the requirements to undertake energy and water efficiency improvements in the City's arenas facilities as described in this report.

Affordable financing is anticipated with a low-interest rate loan of \$2.44 million from the Green Municipal Investment Fund and with capital financing of up to \$7.32 million through the issuance

of 10 year debentures. These will be fully repaid by estimated savings of up to \$1.350 million annually until the debt and loan are retired. Once this has occurred, the savings will be captured permanently into a corporate account and a corresponding operating budget reduction will be achieved. This project offers the City of Toronto an opportunity to improve the water and energy efficiency of its Parks and Recreation arenas, and to reduce operating costs in the long term. Other benefits of this project include: an upgrade of the facilities' physical plant and water and energy using systems, a reduction in CO<sub>2</sub> emissions, training of building operators and reduced maintenance costs.

This project meets the criteria and guidelines as set out in the report entitled "A Framework for Establishing an Energy Retrofit Program and Financing Strategy" as adopted by the Budget Advisory Committee at its meeting on April 8, 2004, as amended by the Policy and Finance Committee at its meeting in April 13, 2004, and adopted by Council at its meeting of April 19 to 24, 2004.

Contact:

Jim Kamstra, Manager, Energy and Waste Management, Business and Strategic Innovation, Facilities and Real Estate Division, Tel: (416) 392-8954, Fax: (416) 392-4828; e-mail: jkamstra@toronto.ca

Lou Pagano, P. Eng, Director, Purchasing and Materials Management, Finance Department, Tel: (416) 392-7312, Fax: (416) 392-0801; e-mail: lpagano@toronto.ca

Bruce Bowes, P.Eng, Executive Director, Facilities and Real Estate Division, Corporate Services Department, Tel: (416) 397-4156, Fax: (416) 392-1880; e-mail: bbowes@toronto.ca

Len Brittain, Director, Corporate Finance Division, Finance Department, Tel: (416) 392-5380, Fax: (416) 397-4555; e-mail: lbrittai@toronto.ca

Josie LaVita, Director, Financial Planning Division, Finance Department, Tel: (416) 397-4229, Fax: (416) 397-4465; e-mail: jlavita@toronto.ca

Frank Kershaw, Director, Policy and Planning, Economic Development Culture and Tourism, Tel: (416) 392-8199, Fax: (416) 392-5600; e-mail: fkershaw@toronto.ca