

May 25, 2010

ACTION REQUIRED

To: The Board of Governors of Exhibition Place

From: Dianne Young
Chief Executive Officer

Subject: **Green Energy Initiative Program – Tender Report**
Back Pressure Steam Turbine at COLISEUM COMPLEX
Contract No. 10-090-09023

Summary:

This report recommends approving a contract with Direct Energy Business Services for the Back Pressure Steam Turbine at Coliseum Complex. The tender for this contract was issued on April 27, 2010 and the recommendation is to award the contract to the low bidder.

Recommendation:

It is recommended that the Board:

- 1. Approve Contract No. 10-090-09023 to Direct Energy Business Services of Toronto, Ontario for the Back Pressure Steam Turbine at Coliseum Complex, in the amount of \$1,182,633.00, which includes a contingency of \$55,000.00, but excludes GST/HST; this being the lowest tender received; and**
- 2. Direct staff to discuss with Toronto EEO to make a transfer some of the funding for the LED Pathway Lighting Project to supplement the shortfall of this Back Pressure Turbine Project and also direct staff to reallocate surplus funds provided under the ISF program for the Coliseum Complex to this project given the steam system is the heating system within the Coliseum Complex**

Financial Impact:

This project is funded by: (a) \$700,000 20-year interest free loan with the Toronto Energy Efficient Office (EEO); and (b) \$300,000 from the 2010 Capital Works Program which was approved by the Board at its meeting held June 2009 and adopted by City Council in December 2009. Energy savings and incentives from this project will be used to repay the EEO loan.

Decision History:

As indicated in other green initiatives project report, construction of new green technologies at Exhibition Place must be funded from outside the state-of-good repair Capital Budget from third party funders. A 20-year interest free loan arrangement was successfully negotiated with Toronto EEO early this spring. At the same time, a partial funding is also included within the approved Exhibition Place 2010 Capital Works Program under the project name Coliseum Complex Steam Boilers Efficiency Retrofit – Back Pressure Steam Turbine.

Issue Background:

This project is to install a back pressure steam turbine at the Coliseum Complex. The back-pressure steam turbine is an electrical generator which would utilize steam pressure produced by the Mid-Arch gas-fired boilers to produce electricity. Steam is produced at approximately 150 pounds per square inch (psi) in the boiler and then it is normally reduced to about 27 psi by a pressure reduction valve for distribution by the heating system. This project is to use a back-pressure steam turbine in place of the pressure reducing valve to drop the steam pressure to the distribution pressure for the heating system and at the same time a by-product of electricity is produced. This produced electricity power can then be used by the normal building operations or be transmitted back to the power grid of Exhibition Place. Such process can generate annual savings of electricity of about \$80,000.00. This project is part of the Exhibition Place Green Energy Initiative program in promoting sustainable development and environmental initiatives in keeping with the approved 2004 Environmental Plan.

Comments:

The tender for this contract was issued on April 27, 2010 and Fatima Scagnol, Corporate Secretary of the Board, supervised the tender opening on May 20, 2010. Two official tenders were received. Their price submissions, excluding GST/HST, are as shown in the following table:

Tenderer	Base Tender Price (\$)	Recommended Tender Price (\$)
Direct Energy Business Services	1,182,633.00	1,182,633.00
Bird Mechanical Ltd.	1,240,000.00	1,240,000.00

The Budget for this project (construction costs, engineering fees, and project management and administration costs) is under the two main Capital Works projects for the work of Back Pressure Steam Turbine at Coliseum Complex (No. 077 and 090) at \$1,000,000. of this total budget, \$700,000 is a 20-year interest free loan from the City of Toronto EEO. Contained in this overall combined budget, \$875,000 is estimated for construction;

The submission of the lowest base tender by Direct Energy Business Services of \$1,182,633.00, which contains a contingency of \$55,000.00, is over the said budget. Therefore, to meet the budget shortfall staff are recommending to direction: (1) to discuss with City EEO the transfer of some moneys from the LED Lighting loan to this Steam Turbine and also to review the level of fund commitment for the ISF funding in the Coliseum Complex as this Steam Turbine will be connected to make the heating system of the Complex a “green” project. Staff are confident that sufficient funds can be allocated to this project to recommend proceeding.

The base tender price includes the supply and installation of a 250 kW steam turbine generator to be installed in the Mid Arch steam boiler plant and utilize the steam produced by the boiler plant during the heating season to generate power for the Complex. This back pressure steam turbine will drop the steam pressure from 150 psi to the normal operating pressure of 27 psi for distribution to the heating system and the remaining pressure will then be left to produce electricity. This produced power is directly tied into the 208 volt system located at the ACX

substation at the north end of Mid Arch and is either being used by the building operations or directly distributed to the Exhibition Place power grid.

Direct Energy Business Services is the lowest bidder. Exhibition Place and the Board Consultant M & E Engineering Ltd. have previously worked with Direct Energy Business Services. Some of the projects that Direct Energy Business Service have worked with in the past are the Queen Elizabeth Building Replacement of Chiller and HVAC Equipment; and Network Automation Engines (software control) and Lighting Controls for North Extension, Industry Building, and East Annex in our Coliseum Complex.

This recommendation is contingent upon approval by the City's Insurance and Risk Management Division of the Surety Company proposed by the successful bidder for the supply of the bonding requirements and is also subject to the Fair Wage Office confirming that the recommended contractor and its subcontractors maintain wage rates and working conditions in accordance with Toronto Workers' Rights requirements.

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