

The Board of Governors on May 29, 2009 approved the recommendations embodied in this report.

May 28, 2009

To: The Board of Governors of Exhibition Place
From: Dianne Young, CEO
Subject: **LED Pathway Lighting Project**

ACTION REQUIRED

Summary:

As explained in previous reports, construction of new green technologies at Exhibition Place must be funded from outside the State-of-Good Repair Capital Budget from third party funders. Early in 2008, the City sent to all departments, agencies and boards the opportunity to apply for funding from the Green Municipal Fund for a Grant for a feasibility study or field test. The first step of this process was to submit an Intent to Apply to the City of Toronto for consideration.

The project proposed by Exhibition Place was to upgrade the lighting to LED on the bicycle/pedestrian pathway that runs along the southern perimeter of the site from the wind turbine to the Ontario Place bridges. This LED project would be testing the viability of utilizing exterior LED lighting with an intelligent lighting control package. The Project would be testing multiple factors: light levels (before and after), hydro savings, public reaction, feasibility of replication and would be part of LightSavers which is a program of the Toronto Atmospheric Fund (TAF).

Exhibition Place was subsequently approved by the City Manager to go forward to FCM as one of the City's proposals and in March 2008, FCM notified Exhibition Place that its Intent to Apply had been accepted and a Detailed Application could be made which was completed and filed with FCM on May 29, 2008. This Detailed Application proposed a budget of \$810,000, with hard construction costs estimated to be approximately \$700,000 of which \$345,000 would be funded from the FCM grant. Following submission to FCM, further funding was sought from the City's Energy Conservation Fund (\$345,000) and TAF (\$50,000) with Exhibition Place providing in-kind services valued at \$70,000.

Exhibition Place has just received notification from FCM that it has approved the grant for \$345,000 and must enter into an agreement with FCM by June 29, 2009. The City indicated on May 1, 2008, that the Project would be eligible for financing from the Toronto Energy Conservation Fund although we have not received a response from the full application submitted for \$345,000. TAF has indicated that they will be recommending a grant of \$50,000 to its Board in July 2009.

This report recommends entering into an agreement with FCM with the caveat that no expenditures will be incurred by Exhibition Place until a full report back to the Board once all funding has been secured.

Recommendations:

It is recommended that the Board:

- 1. Enter into an agreement with Federation of Canadian Municipalities to accept a grant of \$345,000 for the development and construction of a LED bicycle/pedestrian pathway at Exhibition Place on the terms and conditions satisfactory to the CEO and City Solicitor; and,**
- 2. Request Exhibition Place staff take all actions required to give effect thereto.**

Financial Implications:

Since this is a grant from FCM, there are no financial impacts for Exhibition Place.

Decision History:

As part of its 2004 Environmental Plan, the Board established a target of achieving net hydro self-sufficiency.

Issue Background:

As explained in previous reports, construction of new green technologies at Exhibition Place must be funded from outside the State-of-Good Repair Capital Budget from third party funders. Early in 2008, the City encouraged all city departments, agencies and boards to apply for the FCM Green Municipal Fund for a Grant for a feasibility study or field tests.

Comments:

The first step of this process was to submit an Intent to Apply to the City of Toronto for consideration with all of the proposed projects across the corporation.

The project proposed by Exhibition Place was to upgrade the lighting to LED on the bicycle/pedestrian pathway that runs along the southern perimeter of the site from the wind turbine to the Ontario Place bridges. This LED project would be testing the viability of utilizing exterior LED lighting with an intelligent lighting control package on the existing pedestrian pathway/bicycle lane that has 70 lighting fixtures and is 1.24 kilometers long. Sixty-five (65) of the lights will be converted to LED and the remaining five High Pressure Sodium (HPS) lamps will be renewed and a rigorous testing method will be established to test multiple factors: light levels (before and after), hydro savings, public reaction, feasibility of replication. The Project will be part of LightSavers which is a TAF program that aims to have a common monitoring and evaluation approach for several LED projects which could then be used by municipalities to encourage large scale changes to outdoor lighting.

While the Exhibition Place LED field test has only limited impact on energy use on the grounds, it has the potential of having substantial positive environmental impacts in the future. Stationary outdoor lighting is an overlooked opportunity for saving energy and reducing greenhouse gas emissions. Outdoor lighting consumes in the range of 10% of all electricity used by lighting throughout the Province. Outdoor lighting is one of the most publicly visible electricity end use so it has educational value from a conservation/climate point of view. New LED lights combined with adaptive lighting controls represent a huge potential to decrease greenhouse gas emissions.

The Exhibition Place field test will help inform the possible conversion of all outdoor lights at Exhibition Place consisting of 1,043 light fixtures and could inform lighting changes on pedestrian pathway lights within the City of Toronto's parks system consisting of 95 kilometers of pedestrian/bike trails, 90 kilometers of paved pathways and over 1,000 light standards. It was proposed that a representative of TAF and City Parks be members of the staff committee overseeing the project and the final analysis and report that will result from the project.

Following submission to the City, Exhibition Place was subsequently approved by the City Manager to go forward to FCM as one of the City's proposals. In March 2008, FCM notified Exhibition Place that its Intent to Apply had been accepted and a Detailed Application could be made which was completed and filed with FCM on May 29, 2008. This Detailed Application put forward the LED Project with a proposed budget of \$810,000, with construction costs estimated to be approximately \$700,000 of which \$345,000 would be funded from the FCM grant. Following submission to FCM, further funding was sought from the City's Energy Conservation Fund (\$345,000) and TAF (\$50,000), with Exhibition Place providing in-kind services valued at \$70,000.

Exhibition Place has just received notification from FCM that FCM has approved the grant for \$345,000. The City indicated on May 1, 2008, that the Project would be eligible for financing from the Toronto Energy Conservation Fund although we have not received a response from the full application submitted for \$345,000. TAF has indicated that they will be recommending a grant of \$50,000 to its Board in July 2009.

While FCM requires the execution of a funding agreement by June 29, 2009, all obligations in the agreement relate to the construction of the project and no part of the funding will be delivered to Exhibition Place until construction commences. In turn, Exhibition Place will not undertake any financial commitment on this project until all funding sources are confirmed. However, at this point Exhibition Place staff believe that it is important to move forward to confirm the FCM agreement.

The terms of the standard FCM agreement have been reviewed by the City Solicitor and with the exception of some small changes, there are no significant legal issues. Exhibition Place has executed similar agreements for FCM grants for the Horse Palace PV project (\$250,000) and the Energy Initiative Study (\$100,000).

It would be the intent of staff to report back to the Board on the outcomes of the two ongoing funding applications in order to confirm full funding of the LED Project and as with all capital projects, the design of the project and award of tender would be reported to the Board.