



**STAFF REPORT
ACTION REQUIRED
with Confidential Attachment**

Energy Project at Exhibition Place

Date:	June 13, 2012
To:	Government Management Committee
From:	Deputy City Manager and Chief Financial Officer
Wards:	All
Reasons for Confidential Information	This report involves the security of property belonging to the City or one of its agencies, boards and commissions.
Reference Number:	P:\2012\Internal Services\Fac\Gm12008Fac- (AFS 15625)

SUMMARY

The Energy Efficiency Office in the Facilities Management Division recently completed a study of energy opportunities at Exhibition Place. There are existing but separate energy assets on site, and the study concluded that by connecting them, significant financial and operational benefits could be obtained, in part by selling excess energy capacity to a proposed hotel development.

The developer of the proposed hotel at Exhibition Place, Princes Gates Hotel Limited Partnership, is on a timeline to obtain building permits in 2012, start construction in January 2013, and complete construction of the hotel in time for the 2015 Pan Am games. The hotel developer is prepared to revise the hotel's design to source heating, cooling and water heating from the proposed distributed energy system, but requires assurance that the project will be supported by the City prior to proceeding with such redesign.

RECOMMENDATIONS

The Deputy City Manager & Chief Financial Officer recommends that:

1. City Council approve a capital expenditure in the amount of \$4.5 Million from recoverable debt to connect existing energy generation assets at Exhibition Place to supply heating, cooling and water heating to the proposed hotel development

- as well as to existing event facilities including the Ricoh Coliseum, Coliseum Complex, Direct Energy Centre, Allstream Centre.
2. The 2012-2021 Approved Capital Budget and Plan for the Sustainable Energy Program be increased by \$4.5 million gross, \$0 net, funded from recoverable debt over a maximum of ten years with a nominal interest rate of 5%; with cash flows of \$0.100 million in 2012, \$2.4 million in 2013 and \$2.0 million in 2014.
 3. City Council authorize the City and/or Exhibition Place to enter into an energy services agreement with Princes Gates Hotel Limited Partnership for the supply of thermal energy on terms and conditions satisfactory to the Exhibition Place Chief Executive Officer and the Deputy City Manager and Chief Financial Officer and in a form and content satisfactory to the City Solicitor.
 4. City Council direct that the confidential information contained in Attachment 1 labelled General Terms remain confidential until the agreement is executed: confidential information labelled Financial Terms remain confidential indefinitely as it pertains to the security of property belonging to the City or one of its agencies, boards or commissions.

Financial Impact

Funding in the amount of \$4.5 million will be required to implement a distributed energy system at Exhibition Place. The full investment will be recovered from Exhibition Place over ten years or less, enabled by a combination of electricity cost savings at Exhibition Place and the net proceeds from an energy services agreement with Princes Gates Hotel Limited Partnership - net of additional operating expenses.

It is recommended that the approved Sustainable Energy Program be increased by \$4.5 million gross; \$0 net, funded from recoverable debt. A breakdown of the net cost savings and revenue will be included in the Program's 2013 budget submissions.

Pro Forma cash flow projections indicate that this project will result in a net return to Exhibition Place in excess of 10%.

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

DECISION HISTORY

At its meeting on July 16, 17, 18 and 19, 2007, City Council adopted EX10.3 "Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action"

<http://www.toronto.ca/legdocs/mmis/2007/ex/bgrd/backgroundfile-5052.pdf>

At its meeting on November 30 and December 1, 2, 4 & 7, 2009, City Council adopted EX36.9 “The Power to Live Green: Toronto's Sustainable Energy Strategy”
<http://www.toronto.ca/legdocs/mmis/2009/ex/bgrd/backgroundfile-24583.pdf>

At its meeting on February 23 & 24, 2011, City Council adopted EX3.3“2011 Capital Budget and 2012-2020 Capital Plan and Forecast”
<http://www.toronto.ca/legdocs/mmis/2011/ex/bgrd/backgroundfile-35811.pdf>

ISSUE BACKGROUND

Funding for Distributed Energy Business Cases was provided in the 2011 Capital Budget. FVB Energy Inc. was retained by the City to provide professional and technical services to develop a detailed and comprehensive business case for each of three priority Distributed Energy Node opportunities in the City of Toronto. Exhibition Place is one of the identified priority locations for a proposed distributed energy system as a result of the study's findings, conclusions, and recommendations.

The FVB report provides a pro forma business case for proceeding with the project as described in this report. The financial returns are based on energy savings to Exhibition Place and energy sales to the proposed hotel development.

The report findings were not available in time to include the project in the 2012 Capital Budget and Plan. However, the window of opportunity to amend the hotel design plans to incorporate connection to the distributed energy system requires that the City decide now whether or not to proceed with the hotel developer for thermal energy supply from the distributed energy system on the terms and conditions for energy supply as set out in this report.

This project is not a suitable candidate to be funded with a loan from the City's Sustainable Energy Funds ("SEF") as the program is currently configured. SEF loans are restricted to amounts of up to \$1 million. Also, the SEF loans are provided with a zero interest rate, whereas the returns on this project can and should support a reasonable interest charge. SEF revolving loans also unnecessarily tie up critical cash reserves during the repayment term. Finally, SEF loan cash flows were approved as part of the 2012 budget, and would require an amendment and re-opening of the budget were they to be changed.

The City should have a means of ensuring that the energy projects of its programs are funded in cases where positive returns have been demonstrated in business cases. The SEF revolving loan approach requires changes in order to do so more effectively.

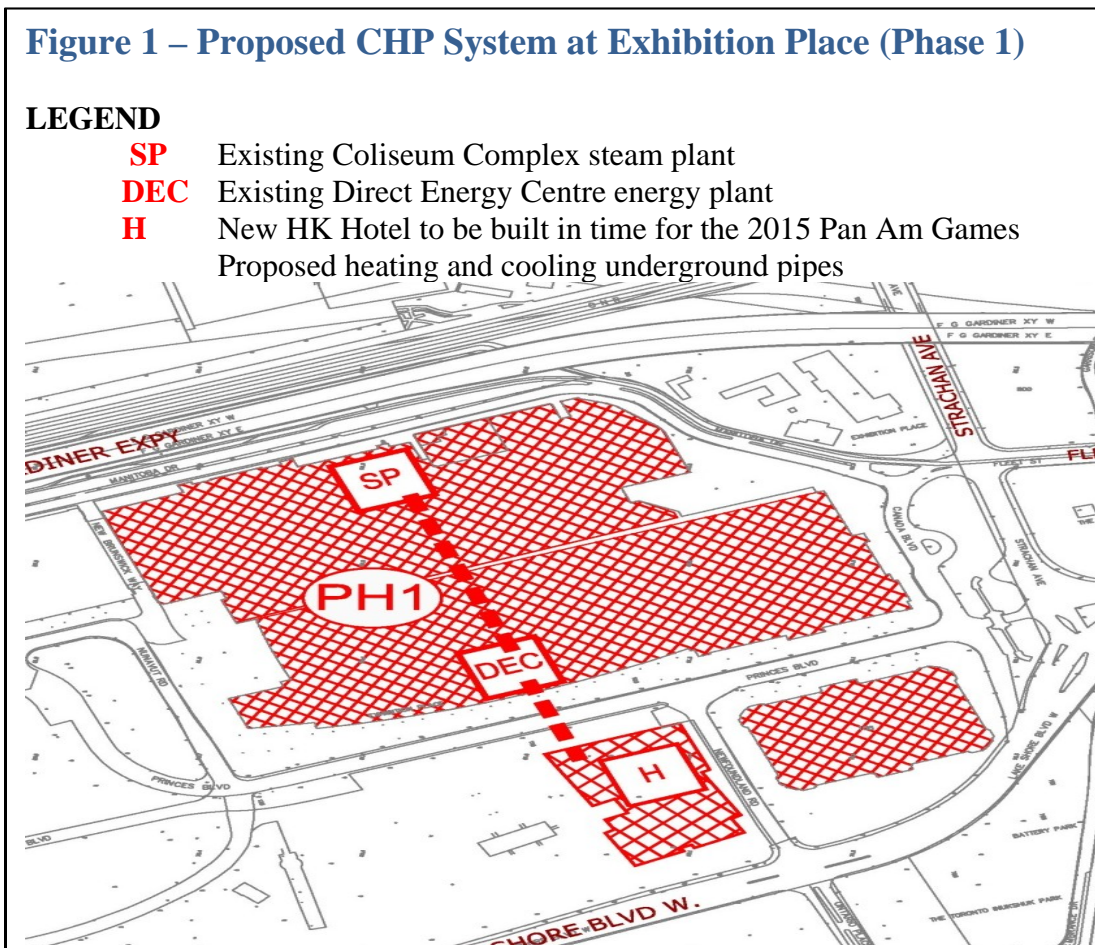
As part of 2012 Capital Budget deliberations, Council requested that the City Manager and Deputy City Manager and Chief Financial Officer report back through the appropriate Standing Committee in the first quarter of 2012 on the merits of Sustainable Energy loans to non-City agencies and to the private sector. The staff review has now expanded to consider whether all sustainable energy projects can be financed through

different means, such as described above for the Exhibition Place energy project, while still preserving the ability to achieve sustainability objectives. A report is now planned for the September Executive Committee.

In the meantime, SEF interest free loans to the private multi-residential sector are being processed. This program provides an incentive for energy related improvements that support Live Green objectives and frees up constrained electricity distribution capacity in the City. Loans worth approximately \$7 million of the total authorized \$10 million in loans to the private sector have been received, and are being considered, but have not yet been approved.

COMMENTS

The proposed distributed energy project at Exhibition Place will connect two existing isolated energy plants; the steam plant at the Coliseum Complex and the heating/cooling/cogeneration plant at the Direct Energy Centre. The interconnected plants will not only have enough heating and cooling capacity to supply the four existing event facilities (Ricoch Coliseum, Coliseum Complex, Direct Energy Centre, and Allstream Centre), but will also be able to sell cold water for air conditioning, hot water for space conditioning and water heating to the new hotel development proposed to be built at Exhibition Place. The project components are illustrated in the figure below:



The proposed energy system connections have the potential to offer Exhibition Place a new source of net revenues from energy sales to the hotel, as supported by the favourable findings and conclusions of the business case. Another significant consideration is the ability of Exhibition Place to supply more of its own electricity needs at the site from an existing underutilized cogeneration system and a back pressure steam turbine, significantly reducing the cost of electricity purchases. Combined, the project is expected to generate returns in excess of 10%.

The City and the Board of Governors of Exhibition Place are proposing to enter into an energy services agreement with Princes Gates Hotel Limited Partnership for the supply of chilled water and hot water for the proposed hotel at Exhibition Place. The terms are as set out in the confidential attachment to this report. All emission reduction credits arising from the project will belong to the City, except for the right of the developer to apply such credits in the determination of its obligations to meet a LEED Silver certification and/or the City of Toronto Green

In addition, the project will establish base line metrics for performance measurement purposes, operations maintenance and performance monitoring procedures.

Benefits

The proposed project is expected to provide financial returns in excess of 10% through significantly lower energy bills and a more highly efficient energy infrastructure and plant. Furthermore, Exhibition Place's goal to achieve energy self sufficiency would be achieved with this project.

The City will also benefit from advancement of its Live Green air quality and energy conservation objectives. This project would create a significant reduction in CO₂ emissions. In addition, the project contributes toward improved energy security in the area, reducing demands on the local electricity grid and ancillary electrical equipment. Finally, the project could potentially free up local electricity capacity for new development in the area.

This project could also be a catalyst for a multi-phase larger vision for distributed energy system at Exhibition Place, supplying energy to its on-site new development, and supplying the heating and cooling energy needs of off-site new development in the general area including the adjacent fast growing areas in the Liberty and Bathurst Quay neighbourhoods and a redeveloped Ontario Place.

CONTACT

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SIGNATURE

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ATTACHMENTS

Confidential attachment