STAFF REPORT
ACTION REQUIRED

Repurposing of the Sustainable Energy Funds and New Funding Model for City Energy Projects

Date:	September 24, 2012
To:	Executive Committee
From:	Deputy City Manager and Chief Financial Officer
Wards:	All
Reference Number:	P:\2012\Internal Services\Cf\Ec12021cf (AFS #15009)

SUMMARY

As part of 2012 Capital Budget deliberations, Council requested that the Deputy City Manager & 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 the private sector.

Current market conditions are considered suitable for energy related projects with positive returns to be financed without support of SEF interest free loans. It is being recommended that future funding for the City's energy projects be provided from recoverable debt as approved in the annual Capital Budget process for the City's agencies and divisions, with repayment from resulting operating program energy savings or revenue generation. No further loans would be approved for entities external to the City. It is proposed that the Sustainable Energy Reserve Funds be made available to fund the City's Tree Canopy capital program, which is experiencing rising costs due to the Emerald Ash Borer infestation.

RECOMMENDATIONS

The Deputy City Manager & Chief Financial Officer recommends that:

1. Energy projects for City agencies and divisions demonstrating sufficient projected returns from energy savings or revenue generation be submitted for approval in the annual capital budget process to be financed through recoverable debt, bearing an interest rate of 2.0% above the corresponding Bank of Canada bond yield, and a maximum term of twenty years.

2. Issuance of repayable loans from the Toronto Energy Conservation Fund (XR1715) and the Toronto Green Energy Fund (XR1716) be discontinued, and applications which have not been approved be terminated.

3. The Toronto Energy Conservation Fund (XR1715) and the Toronto Green Energy Fund (XR1716) be closed once all encumbrances have been paid and the remaining uncommitted funds transferred to the Environment Protection Reserve Fund (XR1718) in order to help defray Emerald Ash Borer related costs and Municipal Code 227 (Reserve and Reserve Funds) be amended to reflect this change.

4. The value of all outstanding SEF loans be offset by a transfer from working capital to the Environment Protection Reserve Fund (XR1718), and future payments on outstanding loans be credited back to working capital.

5. An annual statement on energy cost savings and repayment status of all energy loans be prepared by the Chief Corporate Officer as part of the operating budget process.

6. The guidelines for the evaluation and approval of energy projects as set out in Appendix 1 be approved.

Financial Impact

If adopted, the City's investment returns should increase nominally, and one-time funding in the amount of $61.3 million will be available for the Emerald Ash Borer Management Plan.

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 January 17, 2012, City Council adopted “2012 Capital and Operating Budgets – 2012 Staff Recommended Capital Budget - Sustainable Energy Plan”
http://www.toronto.ca/legdocs/mmis/2012/ex/bgrd/backgroundfile-44037.pdf

At its meeting on December 11, 12 and 13, 2007, City Council adopted “Implementation of the Sustainable Energy Funds”
http://www.toronto.ca/legdocs/mmis/2007/cc/decisions/2007-12-11-cc15-dd.pdf

At its meeting on July 16, 17, 18 and 19, 2007, City Council adopted “Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action”
http://www.toronto.ca/legdocs/mmis/2007/cc/decisions/2007-07-16-cc11-dd.pdf

ISSUE BACKGROUND

As part of the 2012 Capital Budget process, staff were requested to review the merits of sustainable energy loans to non-City agencies and the private sector.

The Sustainable Energy Funds were established in 2008 to provide interest-free repayable loans for eligible energy conservation and renewable energy projects and technology measures, including district energy, demand response and various eligible measures that reduce energy consumption and demand. Potentially eligible recipients are comprised of the municipal, academic, social, and healthcare sectors (MASH), as well as the not-for-profit and more recently amended to include privately-owned multi-family residential sectors. To date, approximately $28.6 million in loans have been selected for approval.

The Sustainable Energy Funds were set up to be revolving loan funds where principal repayments would be deposited into the Reserve and be used to provide additional loans.

COMMENTS

Since the Sustainable Energy Funds were originally established, a number of circumstances have changed and affected the program as it is currently configured, including:

- the cost of capital has changed
- the energy market has evolved
- City borrowing needs have increased

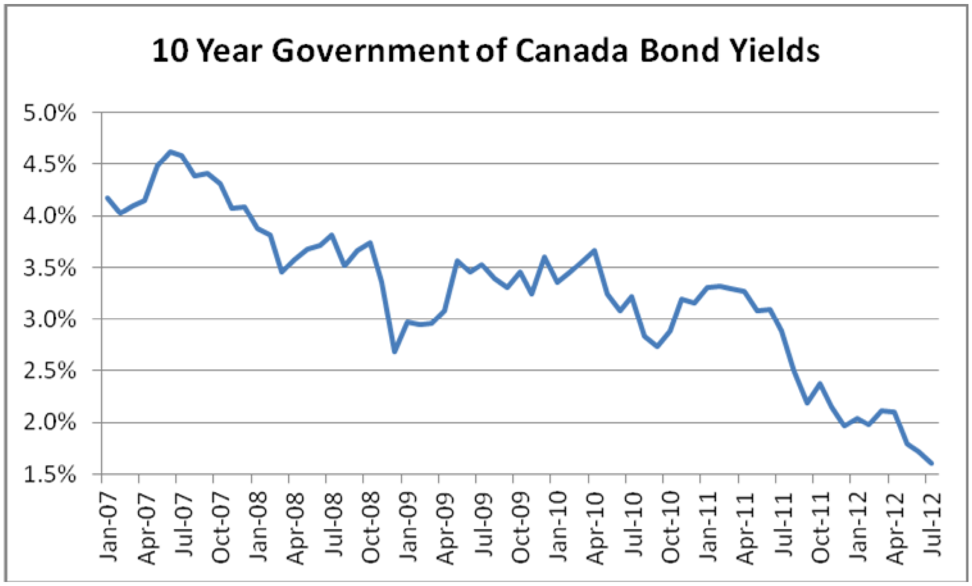
These factors are described in further detail below.

Cost of Capital

In 2007, the rationale for making loans from the Sustainable Energy Funds interest free was two-fold. First, the cost of borrowing was relatively high. Second, access to capital was very restrictive and non-City agencies and the private sector reported that the number and/or scope of energy conservation projects would be significantly reduced due to the lack of capital and a restrictive lending environment.

As a result of lower interest rates and stabilization of lending markets after the 2008/2009 debt crisis, access to capital has improved, thereby reducing the relative benefit of interest free loans. Current expectations are that the interest rate environment is not about to change significantly in the short term, and only modestly over the longer term, due to low consumer demand, high consumer debt, and the hangover of debt crises in Europe and the U.S. housing market. Therefore, below market loans from the Sustainable Energy Funds need no longer be a priority for the City.

The downward trend of borrowing rates is shown in following chart:



Energy Market Conditions

Since 2007, the Ontario energy market has changed dramatically. Early in 2007, it was widely perceived that Provincial and Federal governments were failing to address climate change and related economic issues. Subsequently, through initiatives such as the Green Energy Act (2008) with its Feed-In-Tariff contracts at above market prices for certain renewable energy projects, have provided commercial investment returns for renewable energy projects, and expectation of rising electricity prices has increased incentives for investment in energy conservation and demand management. Both have reduced the requirement for City funded incentives for electricity based projects. It is acknowledged that natural gas prices have fallen significantly over the same period, reducing gas conservation incentives. However, the City has considerably more at stake in electricity conservation since electricity supply channels are currently constrained.

City Capital Needs and Priorities

Since 2007, there have been several changes that impact the City's capital priorities including:

- Debt levels rising towards the City's 15% debt service limit
- New capital demands including transit and 2015 Pan Parapan Am Games
- Increasing backlog of capital projects

City debt requirements have climbed to $900 million in 2012, and caused the City to pursue a variety of debt mitigation strategies including capital expenditure deferrals, restructuring debt to extend the term, and asset monetization. The review of the

Sustainable Energy Funds fits within this set of revised strategies. Considering the constraints on City capital, it is problematic to continue to offer financial support to agencies that are the responsibility of the Province - such as the academic and health sectors. Similarly, given the demand for City investment in social housing stock, and the improved market returns for private sector building owners, City loans to private sector multi-residential owners are no longer considered appropriate.

As a result of the foregoing changes in the financial markets, energy markets, and City capital priorities, it is being recommended that future loans be restricted to City enterprises for energy projects where a positive financial return through energy savings can be demonstrated and can support a reasonable charge for the cost of capital.

Certain City projects to study or implement technology pilots/demonstrations and other early adaptor initiatives in support of the City's Sustainable Energy Plan do not generate a predictable return on investment. A concurrent report to the Executive Committee titled "Revised Carbon Credit Policy and Revenue Opportunities" contains a recommendation to fund such projects from proceeds of carbon credit sales.

Interest on Loans

As indicated previously, the energy market is changing: electricity prices are on the rise, and feed in tariff contracts can provide pro forma returns of 10% or more. Energy related projects should be capable of producing a reasonable return on investment, over and above the cost of funds. If the City does not incorporate a cost of funds requirement or hurdle rate on City energy investments, sub-optimal investment decisions occur, and scarce funds are consumed inefficiently. Staff have sought a balance between encouraging prudent investment, and creating an opportunity to enhance City returns and environmental benefits.

It is therefore recommended that the interest rate for internal financing of future energy projects be set initially at 2.0% above the Government of Canada bond yields, to a maximum term of twenty years. For example, a 10 year loan at current rates would be at 3.86% and a 20 year loan would be at 4.36%. Debt charges would be more than offset by energy savings resulting from the implementation of the approved projects.

Source of Funds

The rationale for the changes proposed in this report is that scarce reserve funds should not be applied to projects that are capable of generating financial returns through reduced energy expenditures, and can therefore be financed through recoverable debt. The changes also release additional funds for the tree canopy program, which is struggling with the cost related to the Emerald Ash Borer infestation. Finally, the recommendations of this report should also provide the City the opportunity to earn better returns on its invested capital than otherwise available in the current low interest rate environment.

Of the original $62.0 million set aside for the Sustainable Energy Funds, $5.5 million has been expended on City initiatives including two studies (totalling $1.0 million), the Community Planning Initiative ($2.54 million), and several positions within the Sustainable Energy Program ($2 million), including $1.0 million proposed for 2013 while this program is in transition. If all remaining uncommitted Sustainable Energy Funds as well as the value of future repayments for existing loans go towards the Emerald Ash Borer capital program, there will therefore be $56.5 million available for this program.

The use and repayment of the Sustainable Energy Funds are summarized in Table 1 below:

Table 1: Sustainable Energy Fund Use of Funds ($ 000's)

		Toronto Energy Conservation Fund (XR1715)	Toronto Green Energy Fund (XR1716)	Total
(A)	**Reserve Fund – Opening Balance as at January 1, 2008**	**42,000**	**20,000**	**62,000**
(B)	Projects with Loans Issued	11,968	8,590	20,558
(C)	Recoverable Solar Photovoltaic Program	8,000	0	8,000
(D)	Non-recoverable City initiatives: -$0.500 Million to District Energy Business Cases -$0.500 Million to Renewable Energy Initiative -$2.540 Million to Community Energy Planning -$2.000 Million to Operating Program Requirements	5,540	0	5,540
(E)	**Total Projects Approved (E)=(B)+(C)+(D)**	**25,508**	**8,590**	**34,098**
(F)	**Reserve Fund - Closing Balance (F)=(A)-(E) as at September 30, 2012**	**16,492**	**11,410**	**27,902**
(G)	**Future Repayments of Borrowed Funds (G)=(B)+(C)**			**28,558**
(H)	**Total Sustainable Energy Funds Available for the Emerald Ash Borer capital program (H)=(F)+(G)**			**56,500**

As shown in Table 1, only $27.9 million is currently available, and it will be 20 years before all loans will be fully repaid. Therefore, it is recommended that the value of all of the existing loans be transferred from working capital to the Environment Protection Reserve Fund (XR1718), and the loan repayments be made to working capital.

The reallocation of the Sustainable Energy Funds to the Environment Protection reserves helps offset significant budget pressures in future years, up to 2019, as illustrated in Table 2 below.

Table 2: Repurposed Sustainable Energy Fund Cash Flow Projections ($000's)

	2013	2014	2015	2016	2017	2018	2019	TOTAL
Fund Balance - Beg. Of Year	**56,500**	**48,081**	**36,966**	**24,191**	**12,343**	**5,513**	**3,448**	**56,500**
Interest Earned	1,581	1,286	924	552	270	135	52	4,800
Contributions to EAB Program	(10,000)	(12,400)	(13,700)	(12,400)	(7,100)	(2,200)	(3,500)	(61,300)
Fund Balance - End of Year	**48,081**	**36,966**	**24,191**	**12,343**	**5,513**	**3,448**	**0**	**0**

Approval Process

If the recommendations of this report are adopted, future energy projects would be identified in accordance with existing energy program criteria and submitted as part of the annual capital budget process. Funds can be borrowed up to an amount that would have corresponding debt charges covered by projected energy savings. Potential energy programs for City agencies and divisions requiring funding in the amount of about $48 million have already been identified as shown in Appendix 2.

Even though the SEF loans are to be discontinued, it is recommended that the Energy Environment Office continue to be responsible for providing technical assistance to projects previously funded including monitoring, measuring, and verifying with customers, as well as reminding borrowers of their obligations to repay their loans. The Director, Energy and Strategic Initiatives will continue to ensure that annual reports are submitted to City Council on the achievements of the loan program as part of the annual budget process.

Transitional Issues

The City's Legal Services Division has been consulted to assess any potential liability or other legal implications arising from changing the scope and eligibility of the loan program, and found none other than a duty to inform current applicants of the changes.

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SIGNATURE

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ATTACHMENTS

Appendix 1 - Eligibility Criteria for Energy Loans for City Agencies, Corporations, and Divisions
Appendix 2 - Portfolio of Priority Projects and Initiatives for City Agencies, Corporations, and Divisions

Appendix 1

Eligibility Criteria for Energy Loans for City Agencies, Corporations, and Divisions

1. Capital Budget Review & Approval

    a. Projects eligible for energy loans will be included in the capital budget submission of Facilities Management (FM)
    b. Projects will go through the various stages of budget review and approval – EMT/Standing Committee/Council review and approval and quarterly variance reporting
    c. Projects financed from net operating cost savings will not impact the annual debt target for each program
    d. If operating cost savings are not sufficient to finance a project, the project may be considered for funding as part of the program's regular capital works and will be included in the debt target for the program
    e. When Council approves the project it becomes part of the Program's capital budget
    f. Accountability for the assets and post-retrofit performance rest with FM

2. Project Financing

    a. Energy projects to be considered shall be limited to tax supported, non-growth related projects that are projected to generate energy savings sufficient to offset a debt service schedule over the performance life of the asset but no more than twenty years, inclusive of all financing costs at 2.0% above the corresponding Bank of Canada bond yield at the time of approval
    b. Project financing will come from the City's working capital
    c. The division that experiences the energy savings will incorporate repayment obligations in their operating budget

3. Project Evaluation

    Projects will be evaluated using net present value based on the Net Present Value. The total project cost including capital maintenance, monitoring and reporting should be equal to or less than the total present value of the net cost savings over the useful life of the project, discounted at the cost of borrowing.

4. Monitoring and Reporting

    FM will be responsible for monitoring and reporting energy consumption and associated savings through the City's annual budget process.

Appendix 2

Portfolio of Priority Projects and Initiatives for City Agencies, Corporations, and Divisions

Energy Project Administrative Business Unit	Target SEF Participants	Projects and/or Initiatives	Scope of Work	Total Funding Requested ($ millions)
Energy Efficiency Office	City Agencies and Corporations	District Energy	a. District Energy Sites could be developed of 10 MW or less based on Business Cases (Up to 15 sites)	**$ 9.000**
		Demand Response	a. Toronto Water Emergency Generators Upgrade (Up to 20 sites) b. Toronto Community Housing Corporation (Up to 135 sites) c. Other City-Owned Buildings (For various City-owned facilities)	**$ 15.791**
Energy & Waste Management Office	City Divisions	Retrofit Projects	a. Potential Retrofit Projects (For various City-owned facilities)	**$ 13.200**
Toronto Renewable Energy Office	City Divisions	Renewable Energy Projects	a. Potential Retrofit Projects including Solar Photovoltaic, Biomass (heat) and Geo-exchange (For various City-owned facilities)	**$ 10.000**
TOTAL				**$ 47.991**