

Sustainable Energy Funds- Private Sector Pilot Program

Date:	January 20, 2010
To:	Executive Committee
From:	Chief Corporate Officer
Wards:	All
Reference Number:	P:\2010\Internal Services\Fac\Ec10001Fac- (AFS 11380)

SUMMARY

This report recommends that up to \$10 million of the Sustainable Energy Funds be eligible for revolving loan financing of privately owned multi-family residential buildings, which undertake comprehensive retrofit strategies on a pilot basis to December 31, 2012. This sector has significant potential to undertake building retrofits and achieve energy savings and green house gas reductions. The work undertaken will also have the beneficial impact of creating jobs, supporting green industry innovation and protecting residents from escalating energy costs. Consistent with current Sustainable Energy Fund requirements, eligibility criteria for privately owned multi-family residential buildings will be based on sound financial practices and will ensure funds are used to achieve sustainability goals and objectives, by supporting projects that provide comprehensive and significant environmental performance improvements.

The loans through the revolving loan arrangement as set out in the Sustainable Energy Fund Program will have no capital or operating budget impact.

RECOMMENDATIONS

The Chief Corporate Officer recommends that:

1. The Deputy City Manager and Chief Financial Officer in consultation with the Chief Corporate Officer, develop and implement eligibility criteria, consistent with the criteria currently in place with necessary modifications, to address the characteristics of the Multi-family Residential sector, for the use of Sustainable

Energy Funds for privately owned buildings that are undertaking comprehensive retrofits leading to significant energy savings and green house gas emission reductions.

2. Total repayable loans to privately owned multi-family apartment sector participants be limited to totals of \$5 Million from the Toronto Energy Conservation Fund and \$5 Million from the Toronto Green Energy Fund for an overall total of \$10 Million, until December 31, 2012.
3. The purpose of the Toronto Green Energy Reserve Fund be amended to include its use as a revolving fund to provide support for renewable energy installations and to accommodate expansion of eligibility criteria to include privately owned multi-family residential buildings (4 stories or greater and a minimum footprint of 600 square metres) that are undertaking comprehensive retrofit projects.
4. The purpose of the Toronto Energy Conservation Reserve Fund be amended to include its use as a revolving loan fund to provide support for energy conservation initiatives and to accommodate expansion of eligibility criteria to include privately owned multi-family residential buildings (4 stories or greater and a minimum footprint of 600 square metres) that are undertaking comprehensive retrofit projects.
5. Municipal Code 227 (Reserves and Reserve Funds) be amended by the foregoing Recommendations #3 and #4 above.
6. Prior to December 31, 2012, the Chief Corporate Officer report back on the findings and outcome of the pilot program and recommendations regarding further private sector participation in the Sustainable Energy Fund Program.
7. The Chief Corporate Officer report on the implications for including carbon credit and conservation demand management funding sources as transfers to and/or conditions of participation in the Sustainable Energy Fund program.
8. The appropriate City Officials be authorized and directed to take the necessary action to give effect thereto, and that leave be granted for the introduction of any necessary bills in Council to give effect thereto.

Financial Impact

No changes would be required to the funding available in the 2010-2019 Recommended Capital Budget and Plan for Sustainable Energy. The program is fully funded from the Strategic Infrastructure Reserve Fund.

The loans through the revolving loan arrangement as set out in the Sustainable Energy Fund Program will have no capital or operating budget impact.

Considering the total Sustainable Energy Funds allocation of \$62 Million, it is recommended that total repayable loan amounts to privately owned building participants be limited to an aggregate of \$5 Million from the Toronto Energy Conservation Fund and \$5 Million from the Toronto Green Energy Fund for a total of \$10 Million. These applications would be subject to the same permitted loan amount range of a minimum of \$50,000 to a maximum of \$1,000,000, at zero interest for up to 49% of eligible project costs that are currently applied to Sustainable Energy Fund applications. Municipal Code 227 (Reserves and Reserve Funds) will be amended accordingly. The Sustainable Energy Fund Eligibility Criteria amended to reflect the foregoing, is included in Appendix 1, attached.

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, 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>

At its meeting on December 11, 12 and 13, 2007, Council adopted “Implementation of the Sustainable Energy Funds”, which included the request for a report on expanding the scope of the Sustainable Energy Funds to include the private sector.

<http://www.toronto.ca/legdocs/mmis/2007/cc/decisions/2007-12-11-cc15-dd.pdf>

ISSUE BACKGROUND

The Sustainable Energy Funds are sourced from the Strategic Infrastructure Partnership Reserve Fund and are comprised of two distinct components known as the Toronto Energy Conservation Fund and the Toronto Green Energy Fund. These funds have been established as revolving loan funds that provide fully repayable zero-interest financing to projects that improve energy efficiency in buildings and/or generate renewable energy, respectively.

The Toronto Energy Conservation Fund has \$42 Million available to facilitate the financing of energy conservation projects in Toronto. This fund is designed to support projects that provide substantial and holistic building performance upgrades. Examples of eligible projects supported by repayable zero-interest financing from the Toronto Energy Conservation Fund include:

- (a) Building Automation Systems
- (b) Building Envelope
- (c) Chiller Replacement
- (d) Equipment Replacement HVAC
- (e) Deep Lake Water Cooling
- (f) Distributed Energy Systems
- (g) Lighting Retrofits, Redesign and Controls

The Toronto Green Energy Fund has \$20 Million available to facilitate the financing of renewable energy projects in Toronto. Examples of eligible projects supported by repayable zero-interest financing from the Toronto Green Energy Fund include:

- (a) Wind
- (b) Hydro
- (c) Biomass
- (d) Biogas
- (e) Bio-fuel
- (f) Solar Photo-voltaics and water heating
- (g) Geothermal

In both Funds, the permitted loan amount range is from a minimum of \$50,000 to a maximum of \$1,000,000, at zero interest for up to 49% of eligible project costs.

The two funds assist the City in achieving the greenhouse gas emissions reductions and air quality targets outlined in the Climate Change, Clean Air and Sustainable Energy Action Plan and the Toronto Sustainable Energy Strategy. The Funds provide financing to projects to improve energy efficiency in buildings and/or generate renewable energy in Toronto.

Currently, the City of Toronto Agencies, Boards, Commissions, Corporations and Divisions (ABCCDs) as well as universities, colleges, schools, hospitals and other not-for-profit entities are eligible for financial support from the Funds. Energy conservation retrofits and green energy projects in privately owned buildings are presently not eligible for Sustainable Energy Funds. City Council previously requested that a report be prepared on expanding the scope of the Sustainable Energy Funds to include the private sector.

As noted in the 2007 report to City Council, at the time, based on the Funds being a new enterprise for staff, the eligibility for participation was limited to proposals from public sector and not-for-profit organizations. The Funds have now been operating well for over 2 years so we are now in a position to expand the scope of eligible projects.

COMMENTS

The Sustainable Energy Funds program participation as of January 15, 2010 is approximately \$ 20.4 Million as illustrated in Table 1.

Table 1: Sustainable Energy Funds Participation as of January 15, 2010

Sustainable Energy Funds	Approved to date by CCO (A) (\$ millions)	Applications Accepted for Review (B) (\$ millions)	Total Sustainable Energy Funds Committed to Date (A+B) (\$ millions)
Toronto Energy Conservation Fund	\$ 6.776	\$ 3.376	\$ 10.152
Toronto Green Energy Fund	\$ 3.260	\$ 6.944	\$ 10.204
Total	\$10.036	\$ 10.320	\$ 20.356

The Sustainable Energy Funds program administration has been undertaken by the Energy Efficiency Office and operated through similar processes and implementing criteria as used by the Better Buildings Partnership to engage participants in energy based retrofits supported by repayable zero-interest loans from the Better Buildings Partnership Loan Repayment Reserve Fund (By-Law #1997-0568).

Consistent with the Better Buildings Partnership Loan Repayment Reserve Fund loan practices, individual loan agreements with currently eligible public sector and not-for-profit Sustainable Energy Fund participants are structured on a fully secured, partially secured or unsecured basis as determined most appropriate after review of the applicant's submission by the Corporate Finance Division. New loan securitization criteria for privately owned multi-family residential buildings (4 stories or greater and a minimum footprint of 600 square metres) will be developed in consultation with the Corporate Finance Division.

To date, the Better Buildings Partnership Loan Repayment Reserve Fund (By-Law #1997-0568) has experienced no loan defaults. Expansion of Sustainable Energy Funds eligibility to the privately owned multi-family residential sector would not differ significantly in the types of eligible conservation measures and the systems that are found in buildings that have participated in the Better Buildings Partnership. This means that privately and publicly owned multi-family residential buildings are technically similar in their systems and operations. As a result, the performance of measures has established predictable rates of return on investments in energy conservation and renewable energy in this sector. Therefore the major relevant factors to be evaluated respecting expansion of

eligibility do not necessarily involve the technical performance of energy conservation measures.

In August 2009 City Council adopted the Home Energy Assistance Toronto (HEAT) grant program, whereby property owners of low rise residential properties in the City of Toronto are eligible for a financial grant up to a maximum of \$1,000 for a selected set of energy efficiency retrofits. HEAT funds are available to Toronto homeowners of low-rise residential properties including single detached, semi-detached, attached (i.e. row houses) and small multi-family buildings (3 stories or less and maximum footprint of 600 square metres).

As there are significant opportunities to address greenhouse gas emission reduction and energy and water efficiency performance improvements in the multi-family apartment sector, assisting these projects to be undertaken is consistent with City Council's sustainability objectives. The Sustainable Energy Funds have been used to support projects from non-profit providers of multi-family apartment buildings so the City has experience with the types of projects that would be undertaken.

There are over 2,500 multi-residential buildings located throughout the City of Toronto. Over 1,000 of these buildings are high-rise buildings that were built between the late 1950s and early 1970s. These buildings are high energy users and comprise the brunt of Toronto's affordable housing stock for low income residents. Although apartment residents generally do not pay their energy costs directly, the energy costs of operating the building are included in monthly rent payments. As energy costs rise, rent increases will impact affordability of rental accommodation in the City. By supporting energy efficiency retrofits, these pressures are ameliorated.

Through the use of best practice in building envelope and energy efficient retrofits, demand for heating and cooling in privately owned multi-family residential buildings can be reduced by over 50 percent. The reduced energy costs generate a revenue stream to pay for the innovative energy technology and on-site improvements while lowering energy-related greenhouse gas emissions and air pollutants. The implementation of energy efficiency measures in buildings and renewable energy projects will allow property owners to realize lower energy costs and will allow rents to remain affordable even as upgrades are being performed on the building.

Projects that go beyond business as usual activities to achieve significant energy savings and green house gas reductions generally require external incentives to demonstrate the benefits and feasibility of the work before broader acceptance occurs. Privately owned multi-family residential building stock owners are no exception, and in fact may face more barriers to investment in deep or longer payback conservation initiatives due to

competition for limited funds, higher investment hurdle rates, and the private sector focus on short term financial results. The availability of the Sustainable Energy Funds would influence these building owners to plan and implement more holistic energy retrofits in support of the City's CO₂ emission reduction goals. These projects would then be examples of excellence and serve as leadership for establishing sector performance norms, and attract the attention of larger players capable of influencing investment and providing incentives, such as banks and/or Ontario and Federal government agencies.

The participation of these projects will include requirements for continuous monitoring and verification of building performance, thereby providing a wealth of invaluable information for further program development supporting the City's Sustainable Energy Strategy. The technical and program information that will be provided by these privately owned multi-family residential buildings will create additional opportunities for testing models for financial incentives, access to intellectual property and determining related benefits such as the work undertaken in the design, implementation and ongoing operation and maintenance of the retrofit projects creating local jobs.

A further reason for Council to approve a loan program is that, as the loans are repaid into the Reserve Funds, money will be available for future sustainable energy projects. This is unlike grant programs, where funding is available on a "one time only" basis.

In consideration of the foregoing and the total Sustainable Energy Funds of \$62 Million, it is recommended that total repayable loan amounts to privately owned building participants be limited to an aggregate of \$5 Million from the Toronto Energy Conservation Fund and \$5 Million from the Toronto Green Energy Fund for a total of \$10 Million. These applications would be subject to the same permitted loan amount range of a minimum of \$50,000 to a maximum of \$1,000,000, at zero interest for up to 49% of eligible project costs that are currently applied to Sustainable Energy Fund applications. Municipal Code 227 (Reserves and Reserve Funds) will be amended accordingly. The Sustainable Energy Fund Eligibility Criteria amended to reflect the foregoing, is included in Appendix 1, attached.

As this expansion of eligibility is a new venture, it should be undertaken on a pilot basis until December 2012, with a report from the Chief Corporate Officer on the findings and outcome of the pilot program and recommendations regarding further private sector participation in the Sustainable Energy Fund Program, being made prior to the expiration of the pilot.

As there are emerging opportunities for supporting energy retrofit programs through carbon credit financing and conservation demand management programs, these opportunities are currently being investigated and a future report on capturing potential opportunities will be undertaken.

This report was prepared in consultation with the City Manager's Office, Corporate Finance Division, Financial Planning Division and Legal Services Division.

CONTACT

Richard Morris, Manager
Energy Efficiency Office
Phone: 416-392-1452
Fax: 416-392-1456
E-mail: rmorris@toronto.ca

Jim Kamstra, Acting Director
Business & Strategic Innovation
Phone: 416-338-1295
Fax: 416-392-4828
E-mail: jkamstra@toronto.ca

SIGNATURE

Bruce Bowes, P. Eng.
Chief Corporate Officer

Appendix 1

The amendment to the current eligibility criteria of the Sustainable Energy Funds is shown underlined in italics

Eligibility Criteria

Sector: Projects must be owned by a MASH sector or not-for-profit entity (excluding buildings owned or leased by the federal or provincial governments) or be owned privately in the multi-family residential (4 stories or greater and a minimum footprint of 600 square metres) sector.

Location: Projects must be located within the City of Toronto

Financial criteria: Applicants must demonstrate a need for City financing. The City should not be the major project financier.

Applicants must submit complete financial details for the project, and show that they have sought funding from other programs for which their project is eligible (including other City of Toronto programs as applicable).

Applicants must demonstrate a good credit history and ability to repay the loan.

Project team: Project teams must have a successful record of working on similar projects. Applications must outline the qualifications of team members.

Timing: Applicants must submit estimated project timelines.

Projects must commence within one year of loan approval.

Comprehensiveness Projects must consider all opportunities for energy savings/generation, and must attempt to maximize energy savings by using shorter-payback measures to subsidize longer-payback measures.

Quantification of results: Estimates of greenhouse gas and smog-causing pollutant reductions, and energy savings or generation resulting from the project must be provided. Project owners must commit to providing ongoing energy data to the City.

Other criteria: Projects must be consistent with City policies; all City permits and approvals must be obtained. Applicants must demonstrate that all relevant federal and provincial legislation/regulations are adhered to. For privately owned buildings, the project must demonstrate significant energy use reductions and green house gas emission reductions.