APPENDIX 1

FACILITIES MANAGEMENT DIVISION ENERGY EFFICIENCY OFFICE

MANAGEMENT OF ENERGY LOANS AND GRANTS FUNDED BY THE ONTARIO POWER AUTHORITY

March 4, 2011

TORONTO Auditor General's Office

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EXECUTIVE SUMMARY

Audit is divided into two phases

The Auditor General's 2010 Audit Work Plan included a review of the City's environmental grant and loan programs. The review is divided into two phases each of which are reported separately. In Phase One, reported to the February 22, 2011 meeting of Audit Committee, a report pertaining to grants administered by the Toronto Environment Office was considered by the Committee.

This report is Phase Two

Phase Two, which is the subject of this report, includes the review of loan reviews and grant programs funded by the Ontario Power Authority (OPA) and managed by the Energy Efficiency Office (EEO), Energy and Strategic Initiatives, Facilities Management Division.

Included in Energy and Strategic Initiatives are a number of additional environmental related programs managed by the Energy and Waste Management Office and the Toronto Renewable Energy Office.

In our previous report to the February 22 Audit Committee, relating to the grants administered by the Toronto Environment Office, we recommended a review of all City-wide environmental grant and loan programs at the City. The review should encompass all environmental related programs including those managed by the Energy and Strategic Initiatives.

The EEO's mandate is to develop and implement loan and grant programs, negotiate energy agreements, manage grant programs of other organizations, and promote energy efficiency, conservation and renewable energy projects in the private and public sectors.

EEO since inception has approved loans of $22 million

Since program inception to December 31, 2010, the EEO has issued 35 loans totaling $22 million. As at December 31, 2010, $13 million in loans remained outstanding. To date, seven of the 35 loans have been fully repaid. As at the date of this report, all required loan payments had been made.

EEO managed a $45 million grant program for the OPA

In addition to their loan program, from 2007 to 2010 the EEO managed a $45 million grant program on behalf of and fully funded by the Ontario Power Authority (OPA) to lower electricity demand in the City and improve energy efficiency in buildings. The City is reimbursed for administrative cost. The agreement with OPA requires quarterly and annual reports by the EEO and provides for an independent audit of the program. Two annual independent audits have been completed and no issues have been identified with EEO's administration of the program.

Issues identified in this report

Our audit identified opportunities for improvement in the management of energy loans as follows:

- Credit screening to determine the financial viability of organizations receiving loans should be strengthened. Formal analysis to assess cash flow, debt capacity and ability to repay the loan should be conducted.

- The project data included in briefing notes recommending loan approval was not always based on the most current information. While it does not appear that the inaccuracies would have impacted loan approval decisions, every attempt should be made to ensure that the most up-to-date information available is presented for decision makers.

- Monitoring of loan repayments can be improved to ensure timely action is taken to address missed loan payments.

- In the past, loan results were either not required or not available to be reported to City Council. EEO staff indicate they will report on the two loan programs to City Council by the end of 2011.

Conclusion

In our view, the implementation of the recommendations contained in this report will provide appropriate information to Council so that they are in a position to evaluate the effectiveness of the program. In addition, the loan application and approval process will be enhanced as will the monitoring of outstanding loans.

BACKGROUND

Climate Change Action Plan was adopted by Council

In June 2007, City Council adopted the report entitled "Climate Change, Clean Air and Sustainable Energy Action Plan: Moving from Framework to Action", (the "Climate Change Action Plan"). The report is an environmental framework aiming to reduce Toronto's greenhouse gas emissions from the 1990 level of approximately 22 million tonnes per year for the Toronto urban area by:

(i) 6 per cent by 2012 (the "Kyoto target")
(ii) 30 per cent by 2020
(iii) 80 per cent by 2050

EEO manages two loan programs aimed at reducing emissions

The Climate Change Action Plan is a comprehensive document outlining a wide range of Council initiatives. This audit report focuses on the management and administration of the loan components of the Plan that are the responsibility of the Energy Efficiency Office (EEO) located in the Facilities Management Division. We also reviewed EEO's administration of the Ontario Power Authority grant program.

EEO's mandate is to develop, implement and manage City loan programs and grant programs of third parties to reduce greenhouse gas emissions through energy efficiency, conservation, demand management and renewable energy projects.

Over five years, EEO is managing $54 million in Climate Change Action Plan loan programs

In 2007 Council approved that $62 million, (subsequently reduced by $8 million to $54 million), of Sustainable Energy Funds (SEF) would be made available for Climate Change Action Plan loan programs over five years (2008 to 2012 inclusive). The funds were to be used for projects in the Municipal, Academic, Social Service and Health sectors and not-for-profit organizations in Toronto as follows:

- Toronto Energy Conservation Fund - a $42 million program to provide interest free loans to finance energy retrofits to various facilities. In 2010, $8 million of these funds was transferred to the Solar Photovoltaic Program, a separate program administered by the Toronto Renewable Energy Office.

- Toronto Green Energy Fund - a $20 million program to provide interest free loans to finance renewable energy initiatives to facilities.

The funds were created as part of the City's Climate Change Clean Air and Sustainable Action Plan.

Effective February 2010, Council approved making privately owned multi-family residential buildings eligible for SEF funding with a cap of $10 million placed on the total funds available for this purpose.

Loans totaling $9.9 million have been made

Since 2007, a total of $9.9 million in loans have been awarded to a wide range of organizations such as Sunnybrook Health Centre, Exhibition Place, Lakeshore Lions Arena Inc. and Toronto Artscape Inc. A complete listing of loans is provided on Exhibit 1 attached to this report. Of those loans, $300,000 has been repaid leaving $9.6 million in SEF loans receivable as at December 31, 2010.

$3.4 million in loans receivable from the program established by former City of Toronto

The EEO also manages the Better Building Partnership program, established in 1997 by the former City of Toronto and continued subsequent to amalgamation. Under the Better Building Partnership Program, $8 million was made available for interest free loans to City Agencies, Boards, Commissions and Corporations and Municipal, Academic, Social Service and Health sector organizations to finance projects that increase energy efficiency in their buildings. Loans awarded under the program have been made to organizations such as the Toronto Catholic District School Board, the University of Toronto, the Toronto Community Housing Corporation and Toronto Artscape Inc. A complete listing of loans is provided on Exhibit 2 attached to this report. Similar to the SEF Program, as loans are repaid, funds are made available for other projects.

Since inception, loans totaling $12.1 million have been issued of which $8.7 million has been repaid. Consequently, a balance of $3.4 million remains outstanding.

In addition, since 2007 EEO has managed a Provincial Program fully funded by the Ontario Power Authority (OPA) designed to improve energy efficiency and conservation in buildings and reduce electricity demand in the City. There is $45 million in total funding available through this grants program. Since inception to December 31, 2010, $14.6 million in grants have been awarded under this program. Organizations often qualify for both an SEF loan and an OPA grant to maximums of 49 per cent and 40 per cent respectively of the cost of the project.

AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

Why we conducted this review

The Auditor General's 2010 Audit Work Plan included a review of the management of environmental grant and loan programs that support climate change, clean air, sustainable energy and other environmental initiatives. The review was divided into two phases.

In Phase One, reported to the February 22, 2011 meeting of Audit Committee, we reviewed grants administered by the Toronto Environment Office. Phase Two of the review, the subject of this report, is the review of loans and grants managed by the Energy Efficiency Office (EEO), Facilities Management Division.

Audit Objectives

The objective of this review was to assess the adequacy of controls and the effectiveness of the administration of the City's environmental loan programs and grants administered on behalf of the Ontario Power Authority (OPA). Our review focused on the following areas:

- Loan program design
- Project selection and approval
- Project monitoring
- Measuring and reporting results

This audit focused on the period from January 1, 2008 to December 31, 2010.

Audit methodology

Our audit methodology included the following:

- review of policies and procedures
- review of Committee and Council minutes and reports
- interviews with staff
- review of documents and records
- evaluation of management controls and practices
- review of the agreement with the Ontario Power Authority and related program and audit reports
- review of audit reports of other jurisdictions in Canada and the U.S.

Compliance with generally accepted government auditing standards

We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence that provides a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

AUDIT RESULTS

A. ENERGY LOANS REPORTING AND VERIFICATION OF PROGRAM RESULTS

The EEO promotes energy efficiency and reduction in carbon emissions through loan programs

The EEO promotes energy efficiency and reduction of carbon emissions through two revolving loan programs.

A Sustainable Energy Funds (SEF) program, approved in 2007 as part of the Climate Change Action Plan, was established to help reduce carbon dioxide emissions to assist the City in meeting its climate change goals.

The former City of Toronto established a Better Building Partnership loan program in 1997 to help increase energy efficiency in buildings of City Agencies, Boards, Commissions and Corporations and the Municipal, Academic, Social Service and Healthcare sector organizations.

Specific details of each of these two funds as at December 31, 2010 is as follows:

LOANS MANAGED BY THE ENERGY EFFICIENCY OFFICE

Balances at December 31, 2010

LOAN PROGRAM	NUMBER OF LOANS ISSUED	LOANS AWARDED (Millions)	PAYMENTS MADE (Millions)	NUMBER OF LOANS OUTSTANDING	BALANCE DEC 31, 2010 (Millions)
Sustainable Energy Funds	20	$9.9	$0.3	20	$9.6
Better Building Partnership	15	$12.1	$8.7	8	$3.4
TOTAL	**35**	**$22.0**	**$9.0**	**28**	**$13.0**

Further detailed information on the loans is contained in Exhibit 1 and Exhibit 2 appended to this report.

The SEF program was approved by Council in 2007 based on a report from the City Manager titled, "Implementation of the Sustainable Energy Funds". This implementation plan called for annual reports on "information such as greenhouse gas reductions generated by the program, success or failure in meeting targets, the number of loans and their dollar value".

No regular reporting of results to City Council

When it was set up in 1997 the Better Building Partnership Loan program did not require any formal reporting to Council. Consequently, there has been no reporting of program results to Council.

EEO intends to report on SEF program results by end of 201l

The EEO has not reported to Council on the SEF program results. The EEO has advised that they will report program results to Council by the end of 2011.

Although loan agreements include the requirement that organizations report energy savings to the City, to date EEO has not received reports on energy savings from any organization. The EEO has not requested or followed up when organizations fail to provide this information and consequently the City has no assurance that projected energy savings were achieved. However, the EEO indicates that they will commence measurement and verification of projects during 2011.

Need for accurate information on individual project results

In order to report to Council, EEO will need accurate information on project and program results. Loans granted by the EEO are often combined with OPA grants. Where OPA grants are involved, the actual energy demand and consumption savings are verified by third party evaluators.

Information on most proposed project results provided to us by the EEO did not agree with the feasibility studies in the project files or to the OPA grant database. EEO documentation will need to be improved to ensure accurate reporting of anticipated versus actual results to Council.

Need to verify that loan proceeds were used for the intended purpose

Without independent verification of project results, the energy savings attributable to City loans may not be reliable. At a minimum, EEO should ensure that the proposed project has been implemented and project results are obtained when projects are completed, compared to proposed results and assessed for reasonableness.

Recommendations:

1. **The Director, Energy and Strategic Initiatives, ensure that project results on individual loans are accurate and complete based on third party evaluations where available or a detailed analysis of energy savings information submitted by organizations.**

2. **The Director, Energy and Strategic Initiatives, ensure that annual reports are submitted to City Council on the achievements of each energy loan program. The annual report should include greenhouse gas reductions generated by the loan programs, success or failure in meeting targets, the number of loans and their dollar value.**

B. LOAN CREDIT SCREENING NEEDS TO BE FORMALIZED AND MORE RIGOROUS

Loans issued range from $46,000 to $2.3 million

Loans issued range from $71,000 to $1,000,000 for the SEF loans and from $46,000 to $2.3 million for the Better Building Partnership loans.

Credit screening is performed prior to loan approval and disbursement

Loan eligibility criteria includes "a good credit history and the ability to repay the loan". The Corporate Finance Division performs the credit screening for EEO loans prior to their approval and disbursement. For each loan applicant, the EEO provides the Corporate Finance Division with audited financial statements for two years, the five year capital plan for energy related projects if applicable and information on other financing sources.

Credit screening does not include formal analysis

The credit screening performed by the Corporate Finance Division is limited to checking credit ratings with rating agencies and reviewing the financial statements to assess whether the applicant has the capacity to repay the loan. This review is not documented in writing. Formal analysis such as a trend analysis of cash flow, debt capacity and ability to pay back the loans has not been conducted. This analysis should help mitigate the risk that the City is assuming in providing loans to private sector organizations.

Recommendation:

3. The Director, Corporate Finance, should implement a formal documented credit screening process for energy loans that includes an analysis of cash flow, debt capacity and the ability to repay the loan. In addition, the credit screening analysis should be forwarded to the Energy Efficiency Office to be placed in individual loan files.

C. DOCUMENTATION SUPPORTING LOAN DECISIONS NEEDS IMPROVEMENT

The EEO coordinates loan application process

The EEO is responsible for the overall coordination of the loan applications with Corporate Finance who assess financial viability and Legal Services who draft the loan agreements. EEO staff review the technical aspects of projects to ensure they meet program requirements.

Project ranking system should be developed in anticipation of loan demand exceeding available funds

The assessment of individual loan requests are not assigned any priority ranking based on the merits of the proposal. This is currently not an issue since adequate funds are available to approve all requests that meet eligibility criteria. In anticipation of loan demand exceeding funds available, staff should consider developing a methodology for prioritizing loan requests.

Chief Corporate Officer approves the loans based on a staff briefing note

At the end of the project assessment and following credit screening by Corporate Finance, EEO staff prepare a briefing note to summarize the project and make a recommendation to the Chief Corporate Officer. The briefing note includes significant project data such as cost and proposed annual energy consumption and carbon emissions reductions. The Chief Corporate Officer bases his loan approval decision on the information contained in the briefing note.

Data in briefing notes was not always consistent with information in the project file

For six out of seventeen SEF loans reviewed, the project data contained in the briefing notes did not agree with the feasibility study or engineering report and/or was not supported by a detailed analysis. Each loan application must include a feasibility study or engineering report prepared by an energy consultant that provides the proposed energy and carbon dioxide savings for the project.

Project file documentation needs organization

In addition, many project files are not well organized and contain multiple sets of data for the same project. For one project, proposal changes resulted in technical information that was not included in the project file. For another project, a feasibility study with multiple options was not clear which option was being implemented. Finally, for large projects funded from various sources, energy savings attributable to EEO funded portions of the project is not available.

Improving file organization and documentation will help improve the accuracy and completeness of project data in the briefing notes presented for loan approval.

Briefing notes do not indicate loan security terms

While loan security terms are documented in the loan agreement, the briefing notes do not indicate whether the loan is secured or not. Energy loans can be unsecured, partially secured or fully secured. Most SEF loans are unsecured. Prior to seeking approval, the project would have undergone credit screening and the appropriate loan security terms would be known and should be included in the briefing note.

Recommendations:

4. **The Director, Energy and Strategic Initiatives consider developing a project ranking system in the event that loan demand exceeds funds available.**

5. **The Director, Energy and Strategic Initiatives, ensure that briefing notes presented for loan approval specify loan security terms and include accurate and complete project data supported by an appropriate level of verification by an energy consultant or engineering firm.**

6. **The Director, Energy and Strategic Initiatives, ensure that each project file clearly documents the project for which the loan is being approved and the energy savings attributable.**

D. LOAN REPAYMENTS SHOULD BE MONITORED MORE CLOSELY

Accounting Services Division is responsible for monitoring loan repayments

The Accounts Receivable Section in the Accounting Services Division is responsible for monitoring whether loans are repaid in accordance with the loan agreements. Loan repayments can be monthly, quarterly or bi-annually. When loan repayments are overdue, the Accounts Receivable section will send an overdue notice to the loan recipient and also notify the EEO of the delayed payment.

Interest is not charged on late payments

Loan agreements do not allow for the charging of interest on late payments unless the principal outstanding has not been paid by the final scheduled loan payment. According to staff, interest has never been charged for any overdue loan payment.

Loan repayments are sometimes late

Loan repayments for 14 out of 26 loans were sometimes late by as much as seven months. As at the date of this report, all required loan payments had been made.

Imposing interest on late loan payments and timely action when loan recipients miss any payments may prevent future repayment problems that could result in loan defaults.

Recommendations:

7. **The Director, Energy and Strategic Initiatives, in consultation with the City Solicitor, give consideration to amending the standard loan agreement to include the charging of interest on late loan payments.**

8. **The Director, Accounting Services, in consultation with the Director, Energy and Strategic Initiatives, monitor the loan repayments on a regular basis and take timely action to follow up late loan payments.**

E. SECURING THE CITY'S FUTURE OWNERSHIP OF CARBON CREDITS

Canadian rules over carbon credits are still being developed

Carbon credits are the dollar value associated with reductions in greenhouse gas emissions. At present, these credits have little or no value although there is a possibility that they will have value in the future.

The Government of Canada is currently developing an "offset system for greenhouse gases". Once in place, this system will set out the rules for buying or selling carbon credits. The program is intended to encourage Canadian businesses and individuals to achieve greenhouse gas reductions. When the offset system is implemented, the City may be able sell credits. Therefore, it is important that the City establishes ownership of carbon credits attributable to its grant and loan agreements.

Ownership of potential carbon credits required in contracts

In a 2006 report to Council, the City Solicitor addressed "contract language to be included in contracts with potential carbon credits". While current City policy does not require loan and grant agreements to include a clause relating to the ownership of carbon credits, including such clauses would be prudent.

Toronto Environment Office grant agreements have a clause relating to the ownership of carbon credits

Toronto Environment Office's Live Green grant agreements have a standard clause relating to the ownership of carbon credits. The clause states that the City alone may claim carbon credits from any greenhouse gas emission reduction that result directly from the grant program. In addition, the agreement states that the City will incur the cost of validating and registering any carbon credits.

SEF loans vary on whether they have a carbon credit clause

In total, nine of 16 SEF loans have a clause on the ownership of carbon credits. For five loans without a clause, there was no explanation on file as to the reason. In addition, one organization with two loans had the emission credit clause removed because they had already ceded ownership of the carbon credits to another party. Given that the whole issue of carbon credits is being studied by the Carbon Credit Working Group, the carbon credit clause in SEF loan agreements should be revisited.

Recommendation:

9. The Director, Energy and Strategic Initiatives, require that future loan agreements include a clause relating to the ownership of carbon credits. The wording of the clause should be developed in consultation with the City Solicitor.

F. AGREEMENT WITH THE ONTARIO POWER AUTHORITY TO MANAGE A GRANT PROGRAM

EEO manages a $45 million grant program for OPA

For the years 2007 to 2010, the EEO had an agreement with the OPA to manage a $45 million grant program. This program is fully funded by the OPA and the City is compensated for administrative costs incurred. The objective of the program is to reduce overall energy demand in Toronto by approximately 90 megawatts by implementing energy efficiency and conservation measures in buildings across the City.

Grants fund up to 40 per cent of project cost

As of December 31, 2010, the EEO had disbursed a total of $14.6 million in grant payments. The grant program funds up to 40 per cent of eligible project costs based on electricity savings and is available to multi-residential and Municipal, Academic, Social and Health Care sectors for existing buildings and to all building sectors for new construction.

OPA requires quarterly and annual reporting against targets

The agreement with OPA requires the City to submit an annual work plan that includes targets to reduce electricity and plans to achieve targets. Quarterly and annual reports to OPA provide status in attaining targets and further action planned where targets are not met.

Program results and grants are based on verified energy savings

Program results and grants are based on verified energy savings. Under the OPA agreement, independent, project evaluators must review the pre and post energy savings submitted by applicants before the grant can be paid.

Audit of OPA expenditures found no exceptions

The OPA agreement also provides for an independent audit of the expenditures the City has made on behalf of the OPA, including grant payments. On an annual basis, the EEO hires an independent accounting firm to conduct an audit "to assess the existence and accuracy of a selection of expenditures". For the 2008 and 2009 audits, no exceptions were noted.

OPA hired consultants to conduct program evaluations

In addition to these audits, in 2009, OPA hired consultants to conduct an interim evaluation of certain energy retrofit programs. The evaluation included grant programs managed by EEO.

Evaluations provide verified energy savings and recommendations for improvement

The major objectives of the evaluations were "to determine verified energy and demand savings" and provide recommendations for improvement. The evaluations included file review, site inspections and engineering analyses to calculate savings. The main finding of the evaluation was "inadequate documentation". For example, changes in scope, which can result in significant changes in demand and energy savings, were not recorded in the project files.

OPA provided only verbal reports to the EEO

According to the EEO, OPA only provided verbal reports of evaluation findings. It would be helpful if EEO were provided the final written reports directly so that staff can address issues and make program changes on a timely basis.

Recommendation:

10. The Director, Energy and Strategic Initiatives, request that, where appropriate, future agreements with funding partners require that the City be provided with reports arising from relevant program evaluations or audits undertaken by the funding partners.

CONCLUSION

This report presents the results of our review of the Energy Efficiency Office's management of loan and grant programs in support of energy efficiency and renewable energy projects in both the private and public sectors.

Addressing the recommendations in this report will improve the loan application and approval process, monitoring of loans to ensure funds are achieving the proposed results and ensure that program outcomes are accurately reported to Council.

Exhibit 1

ENERGY LOANS ADMINISTERED BY THE ENERGY EFFICIENCY OFFICE

SUSTAINABLE ENERGY FUNDS

In thousands

Company Name	Loans Disbursed $	Loans Receivable as of December 31, 2010 $
Sunnybrook Health Sciences Centre	1,000	900
Lakeshore Lions Arena Inc.	1,000	1,000
Exhibition Place	1,000	975
Young Women's Christian Association	1,000	1,000
Evergreen Brick Works	980	980
West Park Health Centre	833	833
Sunnybrook Health Sciences Centre	786	747
Parkdale United Church Foundation	750	719
Toronto Artscape / Wychwood Barns	700	642
Facilities Management Division	291	276
The University of Toronto	262	262
Parkdale United Church Foundation	250	239
Toronto District School Board	192	192
Duncan Mills Laborers' Local 183 Co-operative Homes Inc.	165	149
Brookbanks Non-Profit Homes	150	150
91 Spencer Avenue Co-operative Homes	133	123
Bazaar Non-Profit Housing Corporation	126	113
Winward Cooperative Homes Inc.	126	119
Neighbourhood Unitarian Universalist Congregation	107	107
Toronto District School Board	71	71
Total	**9,922**	**9,597**

Exhibit 2

ENERGY LOANS ADMINISTERED
BY THE ENERGY EFFICIENCY OFFICE

BETTER BUILDING PARTNERSHIP

In thousands

Company Name	Loans Disbursed $	Loans Receivable as of December 31, 2010 $
Toronto Catholic District School Board	2,333	-
University of Toronto	1,800	1,260
YMCA of Greater Toronto	1,363	213
Neil-Wycik Co-op Inc.	1,100	-
The Toronto Public Library	1,000	467
Toronto District School Board	924	-
City Home / Toronto Housing	840	-
The Hospital for Sick Children	820	410
Exhibition Place	600	516
Riverdale Immigrant Women Enterprise	420	367
The Toronto Community Housing Corporation	327	131
Nisbet Lodge	229	-
Metro United Church	168	-
The Supportive Housing Coalition	152	-
Toronto Artscape Inc.	46	14
TOTAL	**12,122**	**3,378**