Attachment 1

CITY OF TORONTO
SUSTAINABLE ENERGY FUNDS –

Program Background

November 14, 2007

1 Program Objectives and Parameters

1.1 Objectives for the Sustainable Energy Funds

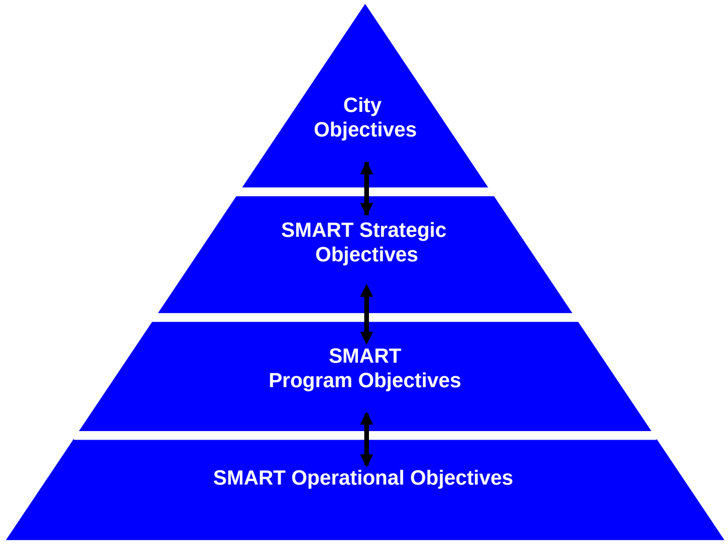
The Funds' objectives are to:

1. Help the City meet its climate change and air quality targets for the Toronto Urban Area as established in the Climate Change, Clean Air and Sustainable Energy Plan (reduce greenhouse gas emissions from the 1990 level of 22 million tonnes by 6% by 2012; 30% by 2020; 80% by 2050; and reduce local smog-causing pollutants from 2004 level by 20% by 2012);
2. Support other City initiatives and priorities, as outlined in the Climate Change Plan, and other initiatives such as the 90 MW Ontario Power Authority electricity savings program being delivered by the Energy Efficiency Office (2007-2010).

In order to meet these objectives, the City has undertaken a number of initiatives and programs (i.e. Better Buildings Partnership, Toronto Atmospheric Fund, Energy Retrofit Program) including the creation of the $42 million TECF and $20 million TGEF.

In order to ensure the TECF and TGEF achieve the City's mandate, clear and measurable objectives need to be established.

The approach in setting the objectives for the two programs involves linking the City's objectives, with SMART (Specific, Measurable, Achievable, Realistic, Time-Based) strategic, program and operational objectives. The SMART methodology is designed to turn high-level mandates into clear, measurable targets that can be effectively monitored over time to assess performance.



****SMART: Specific, Measurable, Achievable, Relevant and Time bound***

Primary Strategic Objectives
In setting the TECF and TGEF strategic objectives, it is important to ensure they do not conflict with other programs, but complement those programs.

Energy Conservation Fund
The strategic objective of the program is to reduce greenhouse gas (GHG) emissions by providing project based financial support to qualified recipients for energy retrofit conservation initiatives in the MASH (municipal, academic, social services and health care) and not-for-profit sector operating in the City of Toronto boundaries (Program may be subject to expansion after year one).

Green Energy Fund
The strategic objective of the program is to reduce GHG emissions by providing project-based financial support to qualified recipients in the MASH (municipal, academic, social services and health care) and not-for-profit sector for the development of renewable energy installations in Toronto (Program may be subject to expansion after year one).

Program Objectives

The program objectives for both the TECF and TGEF are the essentially the same. Both are focused on the reduction of GHG emissions (to assist the City meet its objectives) and to support other City initiatives and priorities; in particular, the 90 MW Ontario Power Authority electricity savings program being delivered by the Energy Efficiency Office (2007-2010).

GHG reduction has been identified as a key objective for the TECF and TGEF and is in line with the Climate Change, Clean Air and Sustainable Energy Plan (CCCASEP). CCCASEP has set a target of a 6% GHG reduction from 22 million tonnes by 2012 for the City. This equates to 1.3 million tonnes, or an average 300,000 tonnes per year, cumulatively over the next five years (to 2012).

In setting the program's objectives and assisting the City meet its mandate, the Sustainable Energy Funds should determine the program's contribution level to GHG reduction, on an annual basis. Another City mandate is the 90MW Ontario Power Authority electricity savings program being delivered by the Energy Efficiency Office (2007-2010). In assisting the City meet this objective, the program's objective should identify how much will be contributed to the 90MW energy reduction by 2010.

To appropriately set measurable objectives for the TECF and TGEF, it is important that a relationship be established between:

a) Dollars spent on a project, the type of technologies utilized and the energy saved or generated.
b) GHG emission reduction and energy saved (Based on Environment Canada, National Inventory Report 1990 – 2004, which is used by other City of Toronto energy programs, the conversion between ekWh and GHG emission, in Ontario, is 244 grams (or 0.000244 tonnes) of GHG per 1 ekWh).

For the first year of program operation, it is possible to use representative projects, similar to projects the TECF and/or TGEF would be funding, to estimate the measurable program objectives. In subsequent years, data from the programs historical Energy Management Firm (EMF) energy saving estimates should be used in setting annual program objectives.

Operational Objectives

In order for the TECF and TGEF to meet program objectives, operational objectives need to be set that will guide the day to day administration of the programs. The operational objectives for the TECF and TGEF have been categorized according to performance, project and administration objectives. These operational objectives are common for both TECF and TGEF.

Performance Objectives

- Annual targets for number of projects / loans (e.g. assuming $9M in loans available in Year One (2008) and an average loan size of $250,000, assuming the program is to maximize the number of loans, the objective in Year One would be 36 loans);
- Annual percentage of utilization of program funds (e.g. assuming the program were trying to maximize the utilization of program loans, the objective would be 100% utilization);
- Average target payback period for projects (e.g. 8 year average payback period for projects); and
- Forecasted program funds available over life of the program.

Project Objectives

For each individual project:

- Ensure project progress is in-line with planned estimates (e.g. assess that costs incurred are within +/- a set percentage of planned costs);
- Timely reporting and sign-off of project reports/results (e.g. ensure completed projects independently verified and signed off within a set reasonable time);
- Minimize financial and credit risk

Administration Objectives
- Maximize accountability and ensure public confidence (e.g. annual reporting of program operations and finances);
- Cost effective operation of the program (e.g. maintain program costs at or below a set percentage of total program funds);
- Effective and efficient operations (e.g. quarter end reporting within a set number of days);

These objectives are outlined in more detail in Section 2.

1.2 Program Eligibility Criteria

Based on a review of current City energy/environment funds, best practices in industry within other jurisdictions and interviews with City representatives and representatives from the Clean Energy Group (a USA based program that promotes clean energy technology) the following eligibility criteria were developed for each of the two programs. The table below outlines the eligibility criteria for a loan recipient, the information / documentation required to support the request and the corresponding due diligence steps that the program administrators should perform for the first year of operations.

Objective	Criteria
TECF strategic objective to encourage reduction of GHG emissions within Toronto.	*For the Energy Conservation Fund* The applicant must operate a facility or building within the borders of the City of Toronto
TGEF Strategic Objective to encourage development of renewable energy installations in Toronto.	*For the Green Energy Fund* The applicant must be installing a renewable energy installation within the boundaries of the City of Toronto Examples of renewable installations may include: ▪ Solar PV ▪ Solar Pool Heating ▪ Solar Domestic Hot Water (SDHW) ▪ Wind turbines ▪ Geothermal

Objective	Criteria
TECF and TGEF strategic objective to encourage reduction of GHG emissions in the following sectors, in 2008: ▪ Municipal ▪ Academic ▪ Social services ▪ Health care ▪ Not-for profit	The applicant must be an organization that operates in one of the following sectors, in 2008: ▪ Municipal ▪ Academic ▪ Social services ▪ Health care ▪ Not for profit
All Applicants	
To ensure applicant can effectively enter into a contract with the City of Toronto for a loan arrangement.	Eligibility is contingent upon the ability to secure authority to permit the organization to enter into and provide security for a loan agreement with the City of Toronto.
To meet the project objectives of the programs for minimizing financial and credit risk.	The applicant has identified and provided committed documentation for other sources of funding for this project. Specifically: ▪ Who the other funders are, and ▪ How much of the project they are funding.
To meet the project objectives of the programs for minimizing financial and credit risk.	Entity must demonstrate they are a going concern.
To meet the project objectives of the programs for minimizing financial and credit risk.	The applicant must demonstrate a good credit history and ability to repay the loan.
To ensure projects meet performance and project objectives of the programs, as well as the City's policy of energy efficiency first.	The applicant must submit a proposal that demonstrates the following: ▪ The initiative meets the program objectives/mandate ▪ Demonstrate ability of the organization to manage the project ▪ Planned clean energy generation or savings. ▪ Planned cost of the initiative ▪ Work plan and timeline for the initiative ▪ Size of loan and estimated payback period ▪ The proposed project does not conflict with existing City, provincial and/or federal policies, legislation or regulations.
To meet the TECF and TGEF performance and project objectives.	If the proposal is satisfactory, then an independent feasibility study from a qualified energy consultant confirming: ▪ Technology; ▪ Energy savings / generation ▪ Costs; and ▪ Payback will be conducted. The initial cost of the

Objective	Criteria
	feasibility study will be borne by the loan applicant. Successful applicants can incorporate the cost of the feasibility study into the overall project cost.

1.3 Program Incentives

As part of the review, research was conducted regarding current revolving loan programs that provide organizations with funds to pursue energy conservation or renewal projects. The City programs reviewed included:

- Toronto Atmospheric Fund (TAF)
- Better Buildings Partnership (BBP)
- Energy Retrofit Program (ERP)
- Water Efficiency Loan Fund (WELF)

Other similar programs included:

- Federation of Canadian Municipalities (FCM) Green Municipal Fund (GMF)
- Sustainable Energy Fund (SEF) – Pennsylvania
- New York Energy Smart Loan Program (NYESLP)

Based on this research, various incentive levels were noted around:

- Interest rates
- Loan levels
- Loan repayment periods and methods of payment
- Ease of implementation
- Ease of reporting.

Based on data, there is a wide range of incentives currently utilized in the market place for energy conservation and renewable loan programs.

#	Incentive	Observations	Incentive for TECF and TGEF
1	Interest rates	Interest rates provided to borrowers vary from program to program. The variability in the interest rate is largely due to the differing mandates and operational objectives of each of the programs. Based on an interview with CEG, a vast majority of US energy programs are grant based programs, as loan programs	A 0% interest rate will appropriately incent organizations (as it is more similar to a grant) to seek out and utilize the TECF and TGEF and help the programs (and City) meet their objectives of energy savings and GHG reductions.

#	Incentive	Observations	Incentive for TECF and TGEF
		have typically had low program participation.	
2	Loan Levels	There is a broad range in the level of loans credit programs are willing to lend to borrowers. Some programs have limited the amount of the loan to between 10% and 25% of the total project costs, while other programs allow for up to 100% program cost loans.	As indicated, the loan provided to recipients ranges widely, from 10% - 100%. Based on our review of City of Toronto existing program, it appears that loans are typically provided between 10 – 25% of the project costs. For the purposes of reducing financial and credit risk, the programs should not be the primary lender of the project (maximum of 49%).
3	Loan repayment period and method of loan repayment	For the programs reviewed, the period of repayment is negotiated and stipulated in the contract agreement between the program and the borrower prior to any transfer of funds. Typical calculations utilized in industry include: - Savings based pay-back – Scheduled payback period, set at the beginning of the loan agreement, based on an estimate of dollar savings from the project. - Straight pay-back – Fixed, scheduled payback period, set at the beginning of the loan agreement that is not dependent on any dollar savings achieved from energy efficiencies Within the City of Toronto, the revolving loan programs (i.e. BBP, ERP and TAF) reviewed base the loan payback period on the estimated energy savings from the project. The average length of payback is 8 years. Based on stakeholder consultations, the payback period for renewable technology is typically longer, potentially up to 20 years.	To encourage applications to utilize the programs, repayment terms should be based on ***projected*** energy savings/generation, to a maximum of 20 yrs.
4	Ease of	The ease of implementation varies from	For government funded institutions

#	Incentive	Observations	Incentive for TECF and TGEF
	implementation	program to program and is dependent on a number of factors including (but not limited to): ▪ Size of loan ▪ Expected payback period ▪ Financial / credit risks For example: Institutional organizations that are government funded typically have lower risk and have an easier funding process.	a less rigorous process of program implementation would be optimal.
5	Ease of reporting	The ease of reporting varies from program to program and is dependent on a number of factors including (but not limited to): ▪ Size of loan ▪ Financial / credit risk ▪ Sector of operation (public or private) For example: Institutional organizations that are government funded typically have lower risk and have a less rigorous reporting process.	For government funded institutions a less rigorous level of project reporting would be optimal (i.e. annual reporting)

2 Program Administrative Framework

2.1 Functional Model for Sustainable Energy Funds

The proposed program model has been based on a review of other City programs and the existing back-office support within the various City departments, augmented by enhanced monitoring through the use of performance indicators. The programs administration would operate similar to the processes used by the Better Building Partnership program. The programs administration would be conducted within the Energy Efficiency Office, utilizing the back office support from Accounting, Corporate Finance, Legal and Budgeting departments.

The key functional steps are:

a. Annual budget is prepared by the program, reviewed by Finance and Budgeting, then subsequently approved by City Council. Council delegates authority to approve projects to the Chief Corporate Officer up to $2 million. This is based on a similar delegation of authority threshold for TAF, where TAF can authorize loans up to $2M without council approval. Greater than $2M will require Council approval;
b. An applicant will submit an “Expression of Interest” (EI) for a loan through TECF / TGEF;
c. TECF / TGEF will conduct due diligence procedures surrounding the applicant’s eligibility and loan provision in accordance with eligibility criteria and due diligence policies;
d. TECF / TGEF will review the Expression of Interest in detail;
e. If the TECF / TGEF decide the project is eligible for a loan, the applicant will retain expert services to conduct a detailed feasibility study that assesses the viability of the project, estimates project cost, project timelines, payback period, energy savings/generation, etc. The applicant will incur the cost of the feasibility study. Successful applicants can incorporate the cost of the feasibility study into the overall project cost;
f. Assuming feasibility study results meet program requirements, TECF / TGEF will enter into an agreement to provide a loan to the applicant. The agreement will outline the details for scheduled repayments, invoicing from the Project Manager;
g. Legal will draft the loan agreement between TECF / TGEF and the applicant;
h. Overall, TECF / TGEF administer the operational aspects of the revolving loan program including project monitoring and loan administration.

Based on discussion with the managers of the current City environment / energy programs, there is need to develop measurable program performance indicators that will be used to assess whether the existing programs are meeting annual or overall objectives.

These performance indicators should augment the existing back office processes and assist in monitoring program / project objectives.

Key performance indicators are discussed in more detail in Section 3 of the report.

2.2 Program Administrative Framework

The following functional parameters should be considered in the development of an administrative framework for the TECF and TGEF:

- People - Administration Structure
- Processes:
  - Application process, investment screening, rating and approval; and
  - Funding process
  - Monitoring, management sanctions and reporting (see Section 3 of the report).
- Risks and Mitigation

People

Administration Structure

The overall success of the program is dependent on the efficient and effective delivery of program operating services (i.e. back-office support) that address areas such as project delivery, energy expertise, financial analysis, program monitoring and delivery.
The success of the TECF and TGEF administration requires the dedicated services of a knowledgeable and experienced team. The program administration staff should have backgrounds in both energy and loan projects and an optimal mix of skills and abilities to deliver the programs efficiently and effectively.

The programs should employ dedicated staff to review, recommend and monitor the TECF and TGEF projects. The number of staff is dependent on the number of expected loan transactions to occur in the current and future years.

Process

Application process, investment screening, rating and approval

The upfront investment screening is fundamental to the success of the programs. Accordingly, the business case criteria should take into account investment screening and cost analysis.

Funding Process

Payment of Loans

Providing loans to the recipients should be subject to strict controls that meet the requirements of the program. These controls may include (but are not limited to):

- Approved supporting documentation and expenditure loan limits;
- Prioritization of loans; and
- Dual authorization.

Each project should be tracked individually in the program's accounting system.

Please see Management Sanctions in Section 3 below for detail surrounding when payments are missed.

At the time of project completion, the program staff should ensure it receives the project's completion certificate / report and the necessary data reported to the program manager (project completion certificate must be independently verified and the cost associated with the verification would be included as part of the project cost). The project completion summaries should contain a financial summary, detailing direct project costs in comparison to the approved project plan, and a summary of accomplishments in relation to the project plan. Project payments (loans) should only be made by the corporate finance group upon receipt of an appropriately reviewed and approved project payment requisitions from program staff and manager. Payment requisition submissions should be made in accordance with the loan agreement.

Risks and Mitigation

As with any program, the TECF and TGEF may experience unforeseen risks or delays. The manager and program staff should work closely and maintain communication with the affected parties to identify problems or delays early and seek effective and efficient resolution.

3 Program Monitoring Framework

3.1 Key Performance Objectives and Indicators

As noted above, for the first year of program operation, it is possible to use representative projects similar to projects the TECF and/or TGEF would be funding, to estimate the measurable program objectives. In subsequent years, data from the programs historical Energy Management Firm (EMF) energy saving estimates should be used in setting annual program objectives.

A suggested framework to calculate annual program objectives would be to utilize the relationships between:

- Dollars spent on a project, the type of technologies utilized and the energy saved / generated; and
- GHG emission reduction and energy saved / generated (using City of Toronto standard conversion rates).

This objectives should be further refined in future years based on actual performance.

Operational Objectives
As indicated above, in order for the TECF and TGEF to meet program objectives, operational objectives that guide the day to day administration of the programs need to be established. The operational objectives for the TECF and TGEF have been categorized according to performance, project and administration objectives. These operational objectives are common for both TECF and TGEF.

3.2 Program Monitoring Processes

The following functional parameters should be considered in the monitoring framework for the TECF and TGEF:

- Monitoring programs;
- Annual audit plans;
- Management of sanctions; and
- Program reporting.

Monitoring Program

Monitoring program operations, funded projects and audits on a timely basis requires the development of systems and performance measures to monitor:

(i) Program operations based on set key performance indicators

(ii) Project performance (on a project by project basis).

(i) Program Monitoring

The program staff and manager should implement systems and performance measures to monitor the program's performance against annual and longer term objectives during the fiscal year.

The program staff should proactively monitor program activity during the year to identify trends, issues and risks occurring in a program and report to the program manager and/or City of Toronto, as appropriate, to assist in making program modifications and improvements.

Issues identified by internal and external audit should be rectified and resolved as soon as possible.

After the first year of operations it is recommended that the City review the TECF and TGEF to assess first year performance and operations.

(ii) Project Monitoring

The program staff and manager should implement systems and performance measures to monitor recipients' progress and performance during the fiscal year.

On an annual basis, the program staff should analyze each project to ensure costs are accurate and within the initially agreed upon contract. The program manager should review this work performed by the staff and report out on program investments, noting accomplishments and improvements required for the program and who the loan recipients are.

Based on its continual monitoring of the investments and project progress as well as risk, the program staff may initiate action as required, which may include:

- Bringing the project to the attention of the program manager, who then either deals with the issue and/or takes it to the City of Toronto designate as necessary;
- Requesting an immediate performance or financial audit of the project;
- Requesting the recipient project manager to take specific steps to rectify issues;
- Modifying the frequency and nature of the reporting required; and/or
- Developing corrective action plans that are similar to post-audit action plans, which include criteria, deadlines and penalties.

Any funds that are to be returned to the programs due to changes in project scope, planned versus actual expenditures, or identified through an audit are identified to Corporate Finance and Accounting where receivables are processed, tracked and collected.

Annual audit plan

For efficiency and cost effectiveness, the TECF and TGEF should utilize the internal and external audit (Auditor General) functions currently employed by the City of Toronto. Internal and external audit should incorporate the TECF and TGEF as part of their overall annual audit plans.

The audit planning for the TECF and TGEF should be based on achieving a sufficient level of assurance to government and stakeholders that the program is meeting its and the City's objectives.

Significant issues arising from the audits should be reported to the program manager as well as senior City staff.

Management of Sanctions

The management of sanctions includes the management of disputes over the disallowance of ineligible expenditures and other matters. The TECF and TGEF should have a proactive approach to issue management sanctions and to work with recipients at the initial project submission stage to assist in the completion of adequate documentation and in the proper use of the project submission, and to assist them in understanding the program requirements. In addition, the program staff should work with recipients and the City of Toronto to improve processes to ensure deficiencies found in the financial or performance aspects of the program are remedied as found.

However, the program staff and manager should recognize that there may be instances of non-performance or material breaches identified during administration of the program. These situations could include:

- Incomplete or improperly completed project plans;
- Issues over eligible activities qualification;
- Disputes over the disallowance of ineligible expenditures;
- Missed or late loan repayments; and
- Audit issues related to project quality and value, and financial issues.

The program staff should deal internally with routine issues of non-compliance (such as ineligible expenditures or work not completed) and provide the City of Toronto with a summary of such issues on an as requested basis. These issues may require the recipient to reperform the work at the direction of the program staff or return the funds relating to the project for non-compliance.

The TECF and TGEF should establish and document a sanctions policy (e.g. at 3 months of default and six months of default).

Program Reporting

Reporting should be an important requirement of the TECF and TGEF to ensure that effective communication of program results and value is delivered to the City.

The programs should keep the stakeholders informed by producing, at a minimum, a reporting package that includes:

- A monthly balance sheet and reserve fund activity statement showing the status of funding against budget, assets and liabilities, forecasted cash flow requirements, administration and audit expenses; and
- The number and value of advances made and the number and value of completed projects by component and activity as applicable.

On a quarterly basis, the program manager and staff should provide reports containing greater detail, including:

- A summary of the current program expenditures for funding envelopes year to-date versus the budget;
- The number of projects received and the number of projects reviewed by the program team;
- A discussion on audit planning, implementation and/or results, as required; and
- The program's goals and objectives for the following quarter in coordination with the City of Toronto and recipients as necessary.

The annual report should act as a fourth quarter report and should also look ahead into programs plan for next fiscal year. It should include the following elements in its year end reporting:

- A year end summary of the total projects completed and the final expenditure through the program's funding, as well as a break down of the expenditures by component and eligible activity, with a comparison to the previous year;
- A summary of the issues the program faced during the fiscal year and steps that were taken to seek resolution and continual improvement;
- An administrative analysis that includes a statement of financial position by year end, identifying any surplus funds remaining;
- A discussion of the audit plan for the fiscal year, including information on the number of performance and financial audits completed by year end with a summary of the total number of audits that are anticipated to be completed;
- A summary of the outputs of the program's performance measures to monitor its success in meeting the terms of the delivery agreement; and
- A look forward to the upcoming fiscal year.