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GRANT AGREEMENTS FOR BUILDING ENERGY FEASIBILITY STUDIES (BEFS)

The Finance and Administration Committee recommends the adoption of the recommendations contained in the following report, February 26, 2004, from the Commissioner of Corporate Services:

1. RECOMMENDATIONS

It is recommended that:

1. The Region be authorized to enter into Grant Agreements under the Federation of Canadian Municipalities Green Municipal Enabling Fund and the Office of Energy Efficiency Energy Innovators Initiative.
2. The Regional Chair and Regional Clerk be authorized to execute on the Region's behalf, subject to the prior approval of the Regional Solicitor, the grant agreement(s) and any other documents required to give effect thereto.

2. PURPOSE

To enable the Region to access up to \$350,000 of Green Municipal Enabling Funds (GMEF) and up to \$350,000 of Energy Innovator Initiative (EII) funding to leverage up to 100% of costs of Building Energy Feasibility Studies.

3. BACKGROUND

3.1 Energy Management Program

York Region owns or leases approximately 150 buildings, of which 65 have staff and the remainder are unmanned infrastructure sites, comprising roughly 3.2M sq. ft. of building area. In recent years the Region has experienced higher utility costs ascribed to increases in utility rates, construction of new facilities and an aging existing building portfolio in need of equipment and operational improvements. These factors combined with York Region's mandate to show environmental leadership have underscored the importance of energy management.

The Region's Energy Management program began in late-fall 2002. Services are broadly categorized in four areas as follows: energy studies and retrofits on existing buildings; energy-efficient new building design; corporate energy management (procurement contracts, budget forecasting and billing); and environmental projects. Energy Management strives to create a self-financing program by way of energy cost-savings and financial incentives.

Early during its conception Energy Management identified a plan to achieve operational cost-savings. The first step was to address the needs of client departments and provide a means to streamline utility billing and benchmark energy performance. In this context the specifications were written for an Energy & Environmental Management System

(EEMS). EEMS is a web-based accessible multi-user database that enables the Region to more efficiently monitor and analyze energy consumption, perform bill verification and environmental analyses, and establish baselines for energy consumption.

With benchmarks in place (utility consumption per square foot or per volume of water discharged) the Region can now measure the cost-savings and associated performance improvements whenever an energy-saving measure is implemented in Regional buildings.

3.2 Building Energy Feasibility Studies (BEFS) Description

This study is a holistic approach towards capturing energy-saving measures and “green” benefits from existing municipal operations. It will also lay the groundwork for a systematic route to incorporating energy and “green” aspects in day-to-day procurement of building technologies. Phase 1 deliverables include a detailed building energy analysis report, including a feasibility assessment and a prioritized list of energy saving measures weighted for various “green” aspects. The outcome of Phase 2 is a detailed assessment of specific technologies. The final phases include an implementation plan and a final report.

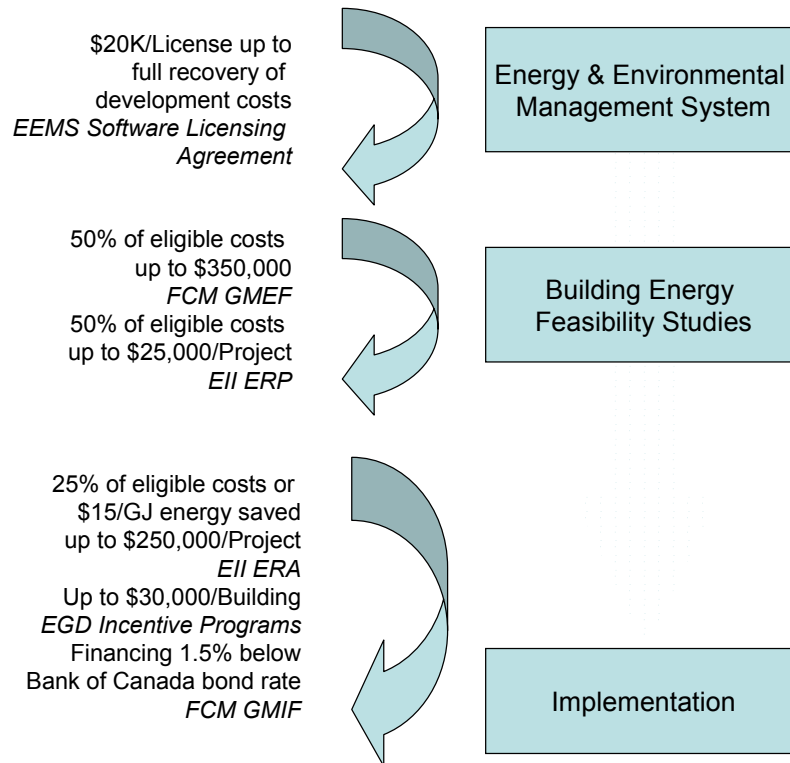
Study findings will be merged with initiatives currently underway – a greenhouse gas (GHG) emission analysis by ICLEI Energy Services Inc. and an asset renewal strategy – to form a powerful three-pronged approach that could lead to an average reduction of 35 per cent or greater in energy consumption, plus corresponding reductions of 31.7 tonnes of sulphur dioxides (SO_x), nine tonnes of nitrogen oxides (NO_x) and 8,289 tonnes of carbon dioxide equivalents (CO₂e). A 20 per cent reduction in water use is also projected.

3.2.1 BEFS Project Plan

In order to create a manageable project schedule and maximize access to other grants the BEFS will be conducted in phases. The first phase will see the completion of building energy feasibility studies on all Regional owned buildings. Phase II will perform a detailed assessment of selected technologies. Phase III will ensure that Phase I and II findings are properly integrated with other Regional building processes (e.g. Asset Renewal, Strategic Accommodation Plan, Environmental analyses) by way of an implementation plan and procurement standard. Finally Phase IV includes the final documentation necessary to fulfill the terms of the Grant Contract.

Energy Management strives to create a self-financing program by way of energy cost-savings and financial incentives. One example of this is the EEMS licensing agreement, whereby the Region receives \$20,000 from each Licensee in order to recover developments costs on at least a partial if not fully recovery basis.

The following schematic presents the array of funding sources available that partially or fully recover the costs associated with creating high performance buildings. Note that the EEMS system will calculate the energy savings once an energy saving measure has been implemented.



*Energy Innovators Initiative (EII) Office of Energy Efficiency, Energy Retrofit Planning (ERP) and Assistance (ERA)
Federation of Canadian Municipalities (FCM) Green Municipal Enabling Fund (GMEF) and Investment Fund (GMIF)
Enbridge Gas Distribution Inc. (EGD), High Efficiency Boiler, MultiCHOICE Conversion and HVAC Program*

4. ANALYSIS AND OPTIONS

4.1 Federation of Canadian Municipalities (FCM) Green Municipal Enabling Funds (GMEF)

In order to leverage the cost in performing the BEFS, grant monies available through the FCM GMEF were pursued. The GMEF is a \$50 million Fund that provides grants to support feasibility studies. Operating from 2000 to 2007, GMEF expects to support a large number of studies, demonstrations and small pilots to assess the technical, environmental and/or economic feasibility of innovative municipal projects. Grants cover up to 50 per cent of eligible costs to a maximum grant of \$350,000.

The Region applied to FCM GMEF in May 2003 and was notified in December 2003 that the Application was approved for a grant in the amount up to \$350,000.

The main principles of the agreement are outlined below.

Grant purpose: To identify and evaluate promising areas for energy-saving and environmental improvements in Regional buildings.

How it works: FCM refunds 50% of the project value to a maximum of \$350,000. The FCM monies are deemed “non-government” funds, which means the stacking rules tied to government funding do not apply. Stacking rules limit access to government funding to 75% of the total project value. Hence the Region can supplement the FCM grant with government funding to leverage the cost of the BEFS to a maximum of 100%.

4.2 Natural Resources Canada (NRCan) Office of Energy Efficiency (OEE) Energy Innovators Initiative (EII) Energy Retrofit Assistance (ERA) Planning and/or Assistance Funds (A/P)

The Region is eligible to receive funding through the OEE ERA program. This funding would further leverage the cost of the BEFS to a maximum of 50%.

NRCan established the OEE to renew, strengthen and expand Canada’s commitment to energy efficiency and to reduce greenhouse gas (GHG) emissions that contribute to climate change. The OEE’s EII encourages commercial businesses and public institutions to improve the energy efficiency of their operations.

The Region has fulfilled the pre-qualifying criteria and has joined the EII and registered with Voluntary Challenge and Registry Inc. In contrast to the FCM funding process, a separate application must be submitted to NRCan for each study which forms the BEFS project. The application includes an Expression of Interest, the service delivery agent’s proposal and documentation supporting the service delivery agent’s credentials. Once each application is reviewed and approved NRCan will prepare a simple Contribution Agreement outlining the legal structure for payment.

The main principles of the agreement are outlined below.

Grant purpose: To help York Region to lower their energy costs and reduce greenhouse gas emissions that contribute to climate change.

How it works:

- Retrofit Projects: NRCan refunds up to 25 percent of eligible costs for energy retrofit projects – up to \$250,000 – based on projected energy savings
- Retrofit Planning: NRCan refunds up to 50 percent of eligible costs for planning services related to energy savings up to a maximum of \$1 per gigajoule (GJ) of energy consumed in the building(s) involved in the project, up to a maximum of \$25,000

EII assistance can be accessed more than once as long as the services are related to new potential energy savings. The Region would access the ERA Planning funds multiple times to leverage 50% of the cost of the BEFS to a maximum of \$25,000 per study, or approximately \$350,000.

4.3 Relationship to Vision 2026

The BEFS will further Vision 2026 goal of an enhanced environment under Goal 8.

5. FINANCIAL IMPLICATIONS

The FCM GMEF and OEE EII grants will have a positive impact by way of leveraging up to 100 per cent of the cost to perform BEFS, to a maximum of \$700,000. The following table presents the cost and contributions. Note that the Region is not obliged to spend \$700 000 in carrying out the BEFS.

Table 1
BEFS Financial Summary

Year	BEFS Estim. Cost	FCM GMEF⁽¹⁾	EII ERA⁽¹⁾	Net Cost to Region
2004	\$105,000	\$52,500	\$52,500	\$0
2005	\$350,000	\$175,000	\$175,000	\$0
2006	\$245,000	\$122,500	\$122,500	\$0
Total	\$700 000	\$350,000	\$350,000	\$0

(1) Exact dollar amount of funding depends on BEFS project structuring.

The objective of the BEFS is to identify and evaluate savings measures. Hence it is difficult to estimate savings before the BEFS are completed on our buildings. If we assume the industry average or ‘rule of thumb’, we can expect 20% savings after a comprehensive energy feasibility study, where no energy retrofit has taken place prior (which is predominantly the case for our buildings). In the RFP for the BEFS the proponent is asked to identify energy-saving measures that lead to 35% energy savings (one should set a more aggressive target than the industry norm).

It is difficult at this time to give hard numbers on energy savings since this depends on the action the Region takes subsequent to the issuance of the BEFS report. Realization of energy savings would follow the measure evaluation and implementation phases, which include input from asset renewal, the strategic accommodation plan and the Corporate Clean Air Task Force.

We will report back at the end of each calendar year throughout the BEFS project term (2004-2006) outlining actual feasibility cost-avoidance and energy savings.

6. LOCAL MUNICIPAL IMPACT

York Region will exercise due diligence on behalf of the taxpayers by leveraging the cost to conduct the BEFS while saving energy costs through high performance buildings. Environmental benefits will be derived from a reduction in water usage and adverse emissions including greenhouse gases.

7. CONCLUSION

The GMEF and EII support the advancement of BEFS which will assist the Region in making informed decisions regarding the integration of high performance building technologies and maximizing the implementation of energy and environmental measures.

The Senior Management Group has reviewed this report.