

To: Finance Committee

From: Stephanie Sinnott, Commissioner, Finance Services,
Office of the City Manager

Report Number: FIN-18-28

Date of Report: May 4, 2018

Date of Meeting: May 10, 2018

Subject: Revolving Energy Fund Reserve

File: F-6500

1.0 Purpose

The purpose of this report is to obtain Council approval for the implementation of a Revolving Energy Fund (R.E.F.) Reserve.

2.0 Recommendation

That the Finance Committee recommend to City Council:

That, pursuant to Report FIN-18-28 dated May 4, 2018, the implementation of a Revolving Energy Fund Reserve be approved as a method to financially support energy conservation projects and initiatives.

3.0 Executive Summary

The City has infrastructure at the end of its useful life including obsolete equipment that can be replaced and upgraded with energy efficient equipment.

Energy projects and initiatives will continue to help the City of Oshawa enhance building systems and facility operations. These projects and initiatives will also help create a culture of energy efficiency in all facilities helping to reduce maintenance and energy costs.

Staff are proposing the creation of a Revolving Energy Fund (R.E.F.) Reserve to support energy related initiatives and retrofit projects across the City of Oshawa. The proposed reserve could be used to subsidize new energy initiatives, support additional staff to complete energy audits, and to complete energy retrofit projects.

Revolving energy funds are quickly becoming a best practice for municipalities to implement their Conservation and Demand Management (C.D.M.) Plans, as mandated by the Green Energy Act, 2009. An R.E.F. will provide funding for energy initiatives and will reduce funding requirements from the Federal Gas Tax Reserve.

The Revolving Energy Fund is included in the 2014 – 2018 Corporate Facilities Energy Management Plan (C.F.E.M.P.) and the Council endorsed Partners for Climate Protection Plan – Corporate Plan.

4.0 Input From Other Sources

- Corporate Leadership Team
- Various municipalities

5.0 Analysis

5.1 Background

Between 2007 and 2014, the City of Oshawa's electricity cost increased by approximately \$2.0 million. In addition, the cost of natural gas is starting to rise with the implementation of the Cap and Trade program. The impact of this program is estimated to add 8.7% to the natural gas bills and is included in the delivery charge portion of the invoices.

With the cost of electricity expected to continue to rise over the next few years, the City of Oshawa will be challenged with budgetary pressures. As one of the leaders in environmental management, the City takes pride in considering ways to strategically conserve energy and be environmentally responsible, in a cost effective manner.

With the added pressure of aging infrastructure that will require significant investment over the next several years, it is prudent to ensure that infrastructure upgrade projects consider Energy Conservation. Energy efficient upgrades will not only pay for themselves over time, but will also reduce maintenance costs and help the City in meeting its Green House Gas (G.H.G.) emission targets.

The Revolving Energy Fund is included in the Corporate Facilities Energy Management Plan. The C.F.E.M.P. is a five-year plan for the period 2014 to 2018. It outlines the actions and measures that will lead to the achievement of the City's goals and objectives for conserving energy, reducing energy consumption and G.H.G. emissions where possible, and managing the demand for energy as required by:

- Provincial legislation: Ontario Regulation 397/11
- The Oshawa Strategic Plan
- The Partners for Climate Protection Program

At its meeting on February 22, 2016, through Report DS-16-25, Council endorsed the Partners for Climate Protection Plan Milestone 3 Submission – Corporate Plan. The Plan lists a number of measures that are used as a guideline to reduce energy costs, energy consumption and greenhouse gas emissions. Under Part C – Organizational Objectives and Measures, Item 22 identifies staff exploring an energy savings reinvestment fund.

Staff are proposing the creation of a Revolving Energy Fund to support energy related initiatives and retrofit projects across the City of Oshawa. The proposed reserve fund could be used to subsidize new energy initiatives, support additional staff to complete energy audits, and to complete energy retrofit projects.

5.2 Other Municipalities Researched

Revolving Energy Funds are quickly becoming a best practice amongst municipalities to implement their Conservation and Demand Management Plans, as mandated by the Green Energy Act, 2009.

Facility Management Services contacted a number of municipalities that either have a formalized Revolving Energy Fund in place or are interested in establishing one.

The following summarizes six local municipalities that have established a Revolving Energy Fund or Energy Reserve, including their financial strategy.

5.2.1 Municipalities that Include Energy Savings, Incentives, MicroFIT and Utility Revenues to Maintain the Fund

Municipality	Description	Key Points
Town of Caledon	<p>The Town of Caledon implemented a Revolving Energy Fund in 2015, which is funded by revenue from three microFIT solar projects. In addition, all energy incentives received from energy projects are deposited into the fund.</p> <p>Caledon support their Council approved energy projects through the R.E.F., where energy projects are budgeted through the fund; the fund is then replenished by the avoided operating utility cost, once realized.</p>	<ul style="list-style-type: none"> • Utility cost avoidance: 100% of the avoided operating utility cost, once realized, goes towards the R.E.F. to pay off an energy project. Once paid, 20% of the avoided operating utility costs continue to go towards the R.E.F. • Revenue from the microFIT solar projects goes towards the R.E.F. • Incentives: 100% of the energy incentives received goes towards the R.E.F.
City of Hamilton	<p>The City of Hamilton implemented their Energy Reserve in 2014 through a Council approved Corporate Energy Policy, which is funded by revenue from microFIT solar projects, energy incentives received from energy projects, carbon off-sets and demand response revenue.</p> <p>In order to maintain the reserve, projects are approved in accordance with their Council approved Corporate Energy Policy. The reserve can be used to finance (in whole or in part) energy projects, energy studies, pilot projects and other similar energy related activities. The reserve is paid back through avoided operating utility costs, once realized, that will help move Hamilton closer to their energy intensity targets.</p>	<ul style="list-style-type: none"> • Utility cost avoidance: 100% of the 1st years avoided operating utility cost, once realized, goes towards the Energy Reserve. 100% of the avoided utility cost remains in the facility operating budget from the 2nd year on and it can be applied against any increases in the operating budget. • Revenue from energy conservation demand management program, renewable energy revenues, and utility bill recovery goes toward the Energy Reserve. • Incentives: 100% of the incentives received go towards the Energy Reserve.

5.2.2 Municipalities that Include Only Energy Savings and Incentives to Maintain the Fund

Municipality	Description	Key Points
City of Guelph	<p>The City of Guelph implemented a Revolving Energy Fund in 2012, which is funded by energy incentives received from energy projects and avoided operating utility costs.</p> <p>Energy efficiency retrofit projects, with a 10 year simple payback, are funded from the R.E.F. Avoided operating utility costs and incentives are used to accelerate repayment of the initial investment.</p>	<ul style="list-style-type: none"> • Utility cost avoidance: 100% of the avoided operating utility cost, once realized, goes towards the R.E.F. to pay off the energy project. • Incentives: 100% of the energy incentives received goes towards the R.E.F.
City of Waterloo	<p>The City of Waterloo implemented a Revolving Energy Fund in 2015, which is funded by energy and water incentives and 25% of the avoided operating utility costs.</p> <p>Waterloo support their Council approved energy projects through the R.E.F. When additional energy initiatives or opportunities come available through the year, and energy management staff recommends using the R.E.F., Council approval is required prior to proceeding.</p>	<ul style="list-style-type: none"> • Utility cost avoidance: 25% of the avoided operating utility cost, once realized, goes towards the R.E.F. annually. • Incentives: 100% of incentives received go towards the R.E.F.

5.2.3 Municipalities that Include Only Incentives to Maintain the Fund

Municipality	Description	Key Points
City of Pickering	<p>The City of Pickering implemented a Green Initiatives Fund in 2014, which is funded by energy incentives received from energy conservation retrofit projects.</p> <p>The fund is used for sustainability related projects, typically related to energy and approval comes from the Director of Community Services.</p>	<ul style="list-style-type: none"> • Utility cost avoidance: 0% of the avoided operating utility cost goes towards the R.E.F. • Incentives: 100% of the energy incentives received goes towards the R.E.F.
City of Burlington	<p>The City of Burlington implemented a Revolving Energy Fund in 2008-2009. All energy incentives received from energy efficient initiatives are returned to the Energy and Environment Group's operating budget to help offset salaries and other expenses.</p>	<ul style="list-style-type: none"> • Utility cost avoidance: 0% of the avoided operating utility cost goes towards the R.E.F. • Incentives: 100% of the energy incentives received goes towards the R.E.F.

5.3 Current Practice

The current practice within the City of Oshawa is to utilize any energy incentives as funding in the specific energy efficiency project the incentive relates to. In addition, utility savings at City Hall are currently being used to pay down the debt associated with the Ameresco Project, while energy savings at other City facilities go to the bottom line.

5.4 Proposed Strategy

The key steps of the R.E.F., for Council approved energy projects/initiatives, are outlined below:

- Facilities Management Services will submit energy projects/initiatives, which have a simple payback of 10 years or less, for approval as part of the annual capital budget process. Projects/initiatives must support the goals and objectives of the C.F.E.M.P. and Partners for Climate Protection (P.C.P.) program. Pilot projects for new energy efficient technologies must provide future benefit to the City.
- Approved energy projects/initiatives are funded fully or partially from the R.E.F. reserve based on input from Finance Services.
- The Revolving Energy Fund Reserve will be established and maintained using energy incentives and avoided utility and maintenance costs, once realized. As an example, avoided maintenance costs would be the reduced need to hire a contractor annually to replace burnt out lights.

5.5 Recommendation

The City has infrastructure at the end of its useful life including obsolete equipment that can be replaced and upgraded with energy efficient equipment. Replacing the equipment with new energy efficient assets will help to reduce the energy demand and energy consumption. In addition, there are environmental benefits such as the reduction of greenhouse gas emissions.

Energy projects and initiatives will help the City of Oshawa enhance building systems and the facility operations, creating a culture of energy efficiency in all facilities while also helping to minimize maintenance costs.

An R.E.F. will provide an alternate funding source for energy initiatives and projects, currently being funded primarily from Federal Gas Tax.

The proposed R.E.F. will be maintained using the following:

- Incentives: 100% of all energy efficiency project incentive money received will go into the R.E.F., unless redirected or previously allocated by Council.
- Utility and Maintenance cost avoidance: 100% of the 1st year's avoided operating utility and maintenance costs, once realized, will go into the R.E.F. Reductions in Year 2 and beyond will be considered during the annual operating budget review.
- Annual withdrawals from the Fund shall not exceed 10% of available balance, unless otherwise approved by Council.

Updates on status of the R.E.F. will be presented to Council through the annual budget process.

It is therefore recommended, that the implementation of a Revolving Energy Fund be approved as a method to financially support energy conservation projects and initiatives as outlined in this report.

6.0 Financial Implications

There are no financial implications beyond annual capital funding requests for energy efficiency projects that are brought to Council for approval each year through the capital budget process.

Avoided utility costs contributed to the R.E.F. Reserve will be verified using Independent Electricity System Operator (I.E.S.O.) supported methodologies from time of project completion to December 31 of the subsequent year.

7.0 Relationship to the Oshawa Strategic Plan

This report supports the guiding principle of financial stewardship, which underlies the Oshawa Strategic Plan. It also responds to the goals of Accountable Leadership (ensure responsiveness, an open and transparent government, and Leader in sustainability), and Environmental Responsibility (less waste generation, proactive environmental management, and cleaner air and water).



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