

## **COMMITTEE OF THE WHOLE – OCTOBER 16, 2012**

### **ENERGY CONSERVATION INITIATIVES, PERFORMANCE REPORTING AND DEMAND MANAGEMENT PLANS**

#### **Recommendation**

The Commissioner of Community Services, in consultation with the Director of Building and Facilities and Manager of Environmental Sustainability recommend:

1. That the report be received, and,
2. That the Mayor and City Clerk be authorized to execute the Roving Energy Managers Participant Agreement with PowerStream Inc.
3. That the Building and Facilities Department in partnership with the Environmental Sustainability Office, track and gather information and submit Vaughan's yearly energy consumption and Greenhouse Gas (GHG) Emissions to the Ontario Minister of Energy, and report back to council by July 2014, and every five years thereafter as per the Regulations.

#### **Contribution to Sustainability**

This report is consistent with the priorities previously set by Council in *Green Directions Vaughan*, the Community Sustainability and Environmental Master Plan:

- Objective 1.1 to reduce greenhouse gas emissions and move towards carbon neutrality for the City of Vaughan's facilities and infrastructure
- Objective 5.1 to share sustainable best practices and ideas between and among municipal staff and the community

#### **Economic Impact**

There are no financial implications for the City entering into the Roving Energy Manager participation agreement. The costs to provide the Roving Energy Manager will be paid by PowerStream. The focus of the Energy Manager's efforts will be identifying low cost-no cost energy savings measures.

Energy Conservation and Demand Management Planning process will be absorbed in existing budgets where possible. Should components of the Plan require funding above and beyond existing operational and capital budgets, these components will proceed only when additional external funding resources have been secured.

Any proposed capital improvements will be identified through the energy audits and will be included in the appropriate capital budget submissions.

#### **Communications Plan**

As the Energy Conservation and Demand Management Plan attain various milestones it will be communicated through News Release and website posting highlighting the key energy conservation achievements. This is consistent with Goal 5 of Green Directions Vaughan "To be leaders in advocacy and education on sustainability issues" where "Vaughan is committed to sharing its successes with the community".

#### **Purpose**

The purpose of this report is to provide the Committee of the Whole with an brief review of facility energy conservation efforts, seek authorization to participate in the Roving Energy Manager

Program to identify and implement energy efficiency initiatives in City facilities and outline Vaughan's response to the responsibilities of municipalities under Ontario Regulation 397/11-Energy Conservation and Demand Management Plans.

### **Background - Analysis and Options**

Over the past several years, the City of Vaughan has completed numerous projects aimed at increasing the energy efficiency of corporate operations. Examples include:

- Chancellor Community Centre indoor pool. Recognized with the Best in Class Award from the Association of Municipalities of Ontario for energy efficiency,
- Light Emitting Diode (LED) park lighting
- Maple Community Centre gymnasium lighting replacement. Twenty-four energy efficient LED lights were installed.
- Leadership in Energy and Environmental Design (LEED) qualified buildings. City Hall, Fire Station 7-9 and Fire Station 7-10 were designed and constructed to use up to 25 % less energy than conventional buildings of the same size.
- LED street lighting retrofit project. The retrofit involved replacing 1400 high pressure sodium street lights in industrial areas with LED technology.

In order for the City to move forward with cost-effective, energy-saving, corporate-wide energy upgrades, the City requires a comprehensive evaluation of the potential projects. Vaughan is in the process of hiring an external firm to audit the energy use of facilities owned by the City. The project will result in a detailed inventory of possible energy efficiency upgrades, including payback scenarios, timelines and associated costs versus savings estimates. The inventory will also be used to inform the City greenhouse gas mitigation strategy, as required by City's membership in the Federation of Canadian Municipalities - Partners for Climate Protection program.

### **Roving Energy Manager**

Another initiative that will assist in advancing our energy conservation progress is the Roving Energy Manager initiative. The Ontario Power Authority (OPA) has established targets for electrical energy reduction for all of the electrical utilities in Ontario. In order to aid the utilities in achieving the targets, a number of incentives such as the Roving Energy Manager initiative, have been developed to provide incentives to power users to implement energy saving measures in their facilities. The Roving Energy Manager will be employed by PowerStream with 80% of the funding coming from OPA and the remainder covered by PowerStream. The City of Vaughan will be sharing the Roving Energy Manager with the Town of Richmond Hill and Canada's Wonderland. The Roving Energy Manager will work closely with key staff from Building and Facilities as well the Environmental Sustainability Office. In order to participate in the Roving Energy Management initiative the City of Vaughan must sign the participation agreement. The Roving Energy Manager will:

- Help establish an Energy Management Plan;
- Establish an electrical energy consumption data base;
- Review energy audits to help establish opportunities for energy savings;
- Assist with establishing monitoring and verification protocols;
- Assist with coordinating energy savings projects;
- Work to establish Energy Management Business Process improvements;
- Assist in applying for incentives for these projects;
- Report to the OPA as required.

The obligations for the City in the Agreement include providing a temporary workplace while the Roving Energy Manager is on-site, coordinating on-site facility visits, providing orientation to facilities, staff and purchasing practices, communicating regularly and providing suitable

operational support. Management will in good faith review and consider proposed projects proposed by the Roving Energy Manager. All of these obligations are achievable and will not result in increased costs to the City. By participating in the Roving Energy Manager initiative, the City gains a valuable resource at no cost. Any capital budget projects brought forward by the Roving Energy Manager will continue to go through staff review, and the regular budget planning process.

The Roving Energy Manager will be tasked with meeting annual savings targets established by the OPA for their respective clients as a total which must be met or the OPA funding will cease. The targets include a requirement that a minimum of one third of the target goals must be met by no cost measures and there is no individual target for any one client.

### Energy Management Plans

Under the *Ontario Energy Conservation Leadership Act*, municipalities and other public institutions are required to prepare and submit energy management plans to the Ontario Ministry of Energy on July 1, 2013 and on July 1<sup>st</sup> for every subsequent year. Energy management plans must include an overview of energy consumption and greenhouse gas emissions for all corporate facilities as well as a description of previous, current and proposed energy conservation projects. Forecasted energy consumption and estimated energy savings must also be reported.

For the City of Vaughan to efficiently meet the legislated requirements of the *Ontario Energy Conservation Leadership Act*, the Building and Facilities Department, in coordination with the Environmental Sustainability Office, will prepare an annual report on the City's energy consumption and progress towards energy conservation targets. The report will be informed by the external energy audit and contributions from the Roving Energy Manager. It will provide a site-by-site breakdown of the energy consumption of every City of Vaughan owned facility.

### Relationship to Vaughan Vision 2020/Strategic Plan

This report is consistent with the Vaughan Vision 20/20 strategic goal of providing service excellence to citizens and the strategic objective to lead and promote environmental sustainability. This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

### Regional Implications

There are no Regional implications resulting from the adoption of this report.

### Conclusion

Energy conservation is increasing in importance with new Provincial regulatory requirements for energy conservation planning and reporting. Utilizing incentives such as the Roving Energy Manager will help build on the energy conservation measures already initiated. Energy conservation planning and reporting dovetails well with the actions identified under *Green Directions Vaughan*, the Community Sustainability and Environmental Master Plan, that commit to reducing greenhouse gas emissions from City owned facilities as well as the early efforts on implementing corporate wide energy efficiency initiatives. The Building and Facilities Department will lead energy conservation planning and reporting efforts with support from the Environmental Sustainability Office. To be successful, the Energy Conservation and Demand Management Planning process must take into account the City of Vaughan's financial constraints and operational need to continue delivering services.

**Attachments**

N/A.

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Respectfully submitted,

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