

## **FINANCE, ADMINISTRATION AND AUDIT COMMITTEE – APRIL 13, 2015**

### **WORKPLACE ELECTRIC VEHICLE CHARGING POLICY- UPDATE**

#### **Recommendation**

The Interim City Manager and the Manager of Environmental Sustainability recommend:

1. That Section 4.5 of the Workplace Electric Vehicle Charging policy (Attachment 1) be revised to include a new process and fee structure to charge part time users.

#### **Contribution to Sustainability**

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

- Objective 1.2: To promote reduction of greenhouse gas emissions in the City of Vaughan.
- Objective 5.2: To share sustainable best practices and ideas between and among municipal staff and the community.

The City of Vaughan is committed to reducing greenhouse gases which contribute to climate change and which adversely affect local air quality. The installation of electric vehicle charging stations encourages the adoption and adaptation to electric vehicles as a more sustainable transportation choice for staff and the community.

#### **Economic Impact**

The dual electric vehicle charging station at City Hall has been in place since May 2013. One staff member has been consistently paying the monthly subscription fee to access the charging station on a full time basis. Other staff using the station periodically, have not been charged for usage. Subscription fees collected have been used to off-set the City Hall electrical account.

#### **Communications Plan**

A separate external communications plan is not required at this time. As with previous initiatives impacting staff, the Environmental Sustainability Office will develop a communication piece for City Hall staff impacted by the new part time user fee to alert them of this initiative. The Environmental Sustainability Office will consult with Corporate Communications on the timing and content of any messaging for the community. 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 seek Council approval of the updated Workplace Electric Vehicle Charging Policy which incorporates a new process for charging part time users of the Electric Vehicle charging station.

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

Electricity-fueled transportation is expanding across the globe as a result of improved vehicle and battery technologies, concerns about oil supplies, and public policy demanding increased vehicle efficiencies. The current electric vehicle (EV) market is made up of two unique types of vehicles – battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). Electric vehicles can

be re-charged by establishing a connection between the vehicle and a power supply ranging from 120 -600V.

In May 2013, Building and Facilities completed installation of Level 2 EV charger, purchased by the Environmental Sustainability Office, in the east parking lot. The Level 2 dual charger installed at City Hall is a 240 V unit, capable of providing an EV boost of 12-30 km/hr using between 3-7 kW/h of energy to do so, depending on a number of variables. Electric vehicle parking signage, designating three spots in front of the EV charging station, was secured and installed.

Although a majority of EV charging is expected to occur at home during off-peak electricity pricing times, research strongly supports the need for the workplace charging opportunities. The US based Electric Power Research Institute estimated that 54% of non-residential parking occurs at the workplace where layover is often between 4-8 hours. This extended period where vehicles are sitting in one place provides an opportune time to provide EV owners with an extension in range.

Although there are now an estimated 3000 electric vehicle in Ontario, the EV charging framework is still in its infancy in Ontario and throughout North America. Many British Columbia based municipalities, which have taken advantage of provincial funding to install publically accessible EV charging stations, have taken the position to provide free access to the stations initially with plans to charge based on time of use in the future. The Vaughan Workplace EV Charging Policy also provides a means to allow the public to access the EV charging station.

Following extensive research, the City of Vaughan established a monthly subscription fee of \$24.27, which represents full cost recovery. Council approved the Workplace EV Charging Policy In September 2013, acknowledging that it should be reviewed annually.

As part of the 2014 review, it was determined that one of the six employees with EVs was consistently paying the monthly subscription fee to access the charging station on a full time basis. Other staff were using the station periodically and particularly more often in colder months. Following consultation with the users and Finance Department staff, a process was established to charge a part time user \$ 24.27 once 80 hours of charge was accumulated. Section 4.5 of the Electric Vehicle Charging Policy (Attachment 1) was updated to reflect the change.

The EV Charger installed does have the capacity to be upgraded to have radio frequency remote control in order to charge more accurately for electricity consumed in the future. However, with only six staff with EVs, the cost of implementing technology to accurately track usage is not warranted at this time.

### **Relationship to Vaughan Vision 2020/Strategic Plan**

This report is consistent with the priorities previously set by Council and supports the City's objective to lead and promote environmental sustainability.

### **Regional Implications**

As electric mobility becomes more prominent, the City Hall EV charging station will become part of growing network of charging stations. This has the potential to positively impact the economic, social and environment sustainability of the region as more EV owners are attracted here.

### **Conclusion**

Through a wide range of initiatives, the City of Vaughan has already demonstrated its commitment to sustainability. As recommended by Green Directions, Objective 1.1, the City of Vaughan aims *to reduce greenhouse gas emissions*. By committing to a Workplace EV Charging

Policy, the City of Vaughan is continuing to demonstrate leadership in the community as well as to its employees as a strong environmental steward. It is important for the City of Vaughan to continue to make progress addressing the issue of climate change while continuing to integrate sustainability into the core culture of the organization. The addition of a part time charging rate to the Workplace EV charging policy will help recoup the costs of operating an EV charging station.

**Attachments**

1. Electric Vehicle Workplace Charging Policy

**Report prepared by:**

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Respectfully submitted,

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**City of Vaughan  
Policy Manual**

<b>SECTION:</b>	<b>POLICY NO:</b>
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<b>DEPARTMENT:</b>	<b>SUBJECT: Electric Vehicle Workplace Charging</b>
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**1. BACKGROUND**

In April 2009, the City of Vaughan approved *Green Directions Vaughan*, the Community Sustainability and Environmental Master Plan, which outlines several initiatives related to encouraging sustainable transportation and leadership in environmental sustainability. The City of Vaughan has an active Smart Commute program that provides incentives to employees to consider sustainable transportation choices.

**2. PURPOSE**

The City of Vaughan recognizes that electric vehicles contribute to improving local air quality, employee retention/attraction and enhancing the overall image of the organization with respect to sustainability.

The purpose of this policy is to:

- Provide guidance to staff driving personal Electric vehicles.
- Promote a corporate culture at the City that recognizes and places a priority on sustainability.

**3. SCOPE**

This policy initially applies to Vaughan City Hall employees only.

**4. GENERAL**

4.1 Employees with Electric Vehicles (EVs) wishing to use the workplace charging station must register with the Environmental Sustainability Office who will coordinate with Building and Facilities, Legal and Finance. Upon registration, employees will be provided with a short information session on the proper use of EV charging equipment and additional program information.

4.2 EV parking spots will be clearly delineated by appropriate signage.

4.3 Employees with EVs will be allowed usage of the charging station for up to 4 hours during the regular business hours of 8:30 AM- 4:30 PM. EVs may continue to be parked in the designated EV parking spots if not connected to a charging station during regular business hours.

4.4 Employees with EVs using the charging station as a registered full-time user will be charged a monthly subscription fee of \$24.27/month. This fee will be deducted as a payroll deduction and revisited annually.

4.5 Employees with EVs using the charging station as a registered part-time user shall report, via email, single use charges to the Sustainability Coordinator following every charge. Part-time users will report the date of use and the number of hours used to charge their EV.

4.5.1 Employees who are registered as a part-time user will be charged a rate of \$24.27 for 80 hours of charging. This fee will be invoiced by the Environmental Sustainability Office with payment through the Vaughan City Hall cashier.

4.7 Any operational issues related to the EV charging stations or designated parking spots should be documented in writing and forwarded to the Environmental Sustainability Office for further action.

4.8 Employees with EVs violating the provisions of this Policy will have their Workplace charging privileges removed.

4.9 Any visitors with EVs requiring the use of the charging station will be asked to contact the Environmental Sustainability Office who will make the appropriate arrangements.

## **5. RESPONSIBILITY OF CITY STAFF**

City staff, reporting and/or visiting Vaughan City Hall, are responsible to become familiar with this policy and apply the established principles.

## **6. CONTINUAL IMPROVEMENT**

The City of Vaughan is committed to a process of continuous improvement through regular review of this policy, its scope and implementation processes on an ongoing basis.