

Subject: Electric Vehicle (EV) Charging Stations Pay for Service Report

Recommendation:

BE IT RESOLVED THAT Council receive Report # 2023-187 EV Charging Stations Pay for Service Report, for information;

AND THAT Council approves the usage fees to be included in the 2023 User Fee and Rate Guide for the Level 2 EV and Level 3 EV Chargers.

AND THAT Council approve the net revenue acquired by the Town from the electric vehicle charging station user fee to be put into the Fleet Reserve Fund for the purpose of expanding and maintaining the electric vehicle charging station network;

AND THAT the Parking By-law be amended to restrict parking in the designated spaces for EV Chargers.

Background:

The Town applied for grant funding from multiple sources to install electric vehicle charging stations at the MCC and Town Hall. It is one of the best ways that the Town can support Pelham in reducing greenhouse gas emissions. The design and installation of 6 new level 2 chargers at Pelham Town Hall and 2 new level 3 rapid chargers at the Meridian Community Centre went out on an RFP process to seek qualified bidders on June 1st and closed on June 22nd.

Staff have awarded the project to Sid Grabell Contracting Limited for a total amount of \$243,103.29 (plus HST). The project is funded by the following grant partners:

- Charge for Change grant funded by Aviva (Earth Day Canada) for six level two EV chargers at Pelham Town Hall in the amount of \$72,693.94.
- Zero Emission Vehicle Infrastructure Support grant funded by Pollution Probe (Provincial) two level three EV chargers at the MCC in the amount of \$100,000.

The project began in August 2023 and is scheduled to be completed by September 30, 2023.

Analysis:

For the Town Hall location, the chargers are a single head charger that will allow for the charging of 6 Electric Vehicles at one time. The location for the EV charger is in six parking stalls in the North Parking Lot, close to Pelham Farmers Market, which are currently in use by the public and staff for the parking of City fleet vehicles (See Map A). At the MCC location, 2 dual head rapid chargers are to be installed at northside of the building which will allow to charge 4 Electric Vehicles at one time. These locations are ideal from a visibility standpoint, but also due to the proximity of the spaces to the buildings as the electrical feed for the charging station will come from the basement of Town Hall and by the garage doors at the MCC (See Map B). It will also allow a potential future expansion as the conduit will be run past the spaces adjacent.

Based on the winning bid by Sid Grabell Contracting Limited, the anticipated costs for the Level 2 EV chargers at Town Hall is approximately \$67,684.05 plus HST, plus other remedial costs. The purchase and direct installation costs for the Level 2 charging unit will be paid for by Charge for Change funded by Aviva (Earth Day Canada) (Federal). The Level 3 EV chargers at the MCC are anticipated to cost \$175,419.24 plus HST. The Level 3 charging stations will be funded through the Zero Emission Vehicle Infrastructure Support by Pollution Probe (Provincial). Capital Project VEH 09-23, has a \$100,000 budget which is funded through the Fleet Reserve. The original projected grant for this project was \$95,000 for a total project cost of \$195,000. With the additional grant funding of a total of \$172,694, more EV chargers were able to be purchased for a total project cost of approximately \$247,000; therefore approximately \$75,000 was needed from the Fleet Reserve.

To accommodate the EV charging stations, staff propose to modify the usage of these spaces to be reserved for EV vehicles only. These 8 spaces will be included in the parking supply at Town Hall and the MCC, which will require drivers wishing to charge their vehicles to pay for the service. To help ensure that the spaces are reserved for EVs, staff propose to make the spaces available only to vehicles that display a "green" license plate. "Green" license plates are only issued to Plug-in hybrid electric vehicles (PHEV), battery electric vehicles (BEV) and hydrogen fuel cell vehicles (HFCVs). For the next year, staff will monitor the usage of the charging stations to determine if the parking spaces should remain for electric vehicle use only or if a shared parking model is more practical. In the event that staff determine that the usage warrants dedicated usage for electric vehicles only staff will need to update the parking bylaw to create an offence for parking in a "restricted space". Signage will be installed indicating that the spaces are reserved for "green" license-plated vehicles, which will allow staff to enforce the "green" plate requirement.

Financial Considerations:

The purchase and installation costs of the Level 2 and Level 3 charging units will be paid for by the funding partners and the Fleet Reserve as approved in the 2023 Capital Budget.

The Town will be responsible for some incidental costs which are anticipated to be less than \$1,000, including minor signage modifications to inform drivers of the various requirements of the EV spaces.

While most EV Chargers in Ontario do not realize revenue, an increasing number charge \$2 per hour or a flat fee of \$4 per charge. In most municipalities, users are required to purchase parking from the Pay and Display machines the range cost of \$1.50 - \$2.00 per hour for a maximum of three (3) hours for Level 2 Chargers and ranging from \$20.00 - \$25.00 per hour for the Level 3 chargers.

The Town will be responsible for the maintenance after the one-year warranty period expires. The EV charging stations have the ability to require a fee to be paid by the user in order to operate them. Payment infrastructure is handled through a cellular gateway included with the charging station. Payment infrastructure is included with the station, however, when it is installed and commissioned, it can be set up to allow charging for free or at alternative rates as approved by Council.

The maintenance period for the chargers will be one year. FLO (the supplier of the technology) will monitor the uptake and usage of the charging stations without charging a fee during this period. Following the maintenance period and assuming a fee is charged, a third-party administrator (FLO) handles all the revenue collection at a cost of 15% of the revenue. The usage can be monitored via an online secure connection to the charging stations that are provided by the manufacturer. The connection to the web portal is through a cellular gateway and no connection to the Town's local IT network or any other physical connection is required.

There are no costs for the connection to the web portal service because it is bundled into the annual Global Management Service (GMC) contract with FLO. Commencing in year two, GMC rates for Level 2 Chargers are \$200.00 per head yearly and \$850.00 for the Level 3 Chargers per head. This will be a total annual operating cost of approximately \$2,900 (plus HST) in addition to 15% of revenue from the charging stations.

It is the staff's recommendation to proceed with the usage fees for the Level 2 EV

Chargers in the amount of \$2.00 and \$22.00 for the usage fee for the Level 3 EV Chargers to offset the costs of the charging units.

Based on the figures for Electric Vehicle Charging Stations (EVCS) from different municipalities for Level 2 chargers, the Town could realize up to \$2,920 per machine annually for the Town Hall chargers, or \$17,520 potential revenue total across six machines by charging \$2.00 per hour averaging 4 cars per day. For the Level 3 Chargers at the MCC, the potential revenue per machine is \$16,060 per machine, or \$32,120 across 2 machines by charging \$22.00 per averaging 2 cars per day.

Alternatives Reviewed:

An alternative could be that the Town would not charge for the usage of the EV chargers. Staff does not support this due to the potential revenue annually as well as ongoing maintenance and replacement costs.

Strategic Plan Relationship: Environmental and Climate Change Adaptation

Providing EV charging stations is in alignment with the Town's Climate Change Adaption Plan, might provide new sources of revenue, and will reduce greenhouse gas emissions.

Electric Vehicle Fleet and Charging Stations are an action item under the Environmental and Climate Change Adaptation Strategic Goal.

Consultation:

FLO (Supplier of Charging Stations),
Manager of Engineering,
Manager Financial Services and Deputy Treasurer,
Director of Corporate Services & Treasurer

Other Pertinent Reports/Attachments:

2023-0111 Information Regarding Electric Vehicle Charging Stations, May 03, 2022

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