
REPORT TITLE: User Fees for Electric Vehicle Charging Stations

FROM: Gary Kent, CPA, CGA, ICD.D, Chief Financial Officer and Commissioner of Corporate Services

RECOMMENDATION

- 1. That the amendments to the Region of Peel Fees By-law 43-2002, as amended, described in the report of the Chief Financial Officer and Commissioner of Corporate Services, listed on the May 26, 2022 Regional Council agenda titled, “User Fees for Electric Vehicle Charging Stations”, be approved; and**
- 2. That the necessary amending by-law be presented for enactment.**

REPORT HIGHLIGHTS

- The Region currently owns and operates 72 electric vehicle (EV) charging stations across 19 properties that are open for public and/or employee use. Federal funding has been secured to install eight more by the end of 2022.
- The Region does not currently charge a fee for the use of Region provided EV charging stations.
- Implementing a user fee is consistent with the Region’s ‘Users pay where appropriate’ financial principle, will enable the Region to serve more vehicles with existing infrastructure and recover a portion of annual operating costs, which are currently \$43,000.
- Staff propose fees that are aligned with Peel Region’s average residential electricity rates to promote continued EV uptake and charging station use.
- Pro-rated hourly user fees of \$1.00 for Level 2 and \$7.80 for Level 3 DC fast charging stations, inclusive of HST, are being proposed for implementation on September 6, 2022.

DISCUSSION

1. Background

Electric vehicle (EV) sales are set to accelerate rapidly over the next decade. The Government of Canada has set a mandatory target for all new light-duty cars and passenger trucks to be zero-emission by 2035ⁱ. The Provincial Government has set a goal to build at least 400,000 electric and hybrid vehicles in Ontario by 2030.ⁱⁱ Major auto manufacturers have pledged \$100s of billions towards achieving an electrified future – including those present in the Greater Toronto Area like Ford, General Motors, and Stellantis.

User Fees for Electric Vehicle Charging Stations

As of February 2022, more than 8,000 EVs and plug-in hybrid EVs were registered to residents within the Region of Peel, an increase of 40 per cent compared to 10 months prior (see Appendix I – EV Growth in Peel Region).

EVs recharge their batteries using electricity provided by charging stations. There are three 'Levels' of charging reflecting power output and the speed at which a battery can be charged.

Table 1: Levels of EV Charging Infrastructureⁱⁱⁱ

Electric Vehicle Charging Speed on Level 1, 2, and 3 Chargers			
Charging Level	Power Delivery	Driving Range Added	Time to Charge 60 kWh EV <i>(from 10% to 80% battery charge)</i>
Level 1	1-1.4 kilowatts (kW)	5-8 km per hour	30 - 40 hours
Level 2	3.9-19.2 kilowatts (kW)	20-130 km per hour	2 - 10 hours
Level 3	24-350 kilowatts (kW)	2-28 km per <u>minute</u>	8 minutes - 2 hours

The Region of Peel's first EV charging station installations were completed in 2017. The stations were open for use by employees and the general public at no cost to encourage early EV uptake in the community as a measure to address the broader climate crisis.

2. Rationale for User Fee

The Region currently owns and operates 72 charging stations across 19 properties that are open for employee and/or public use. Federal funding has been secured to install 8 more by the end of 2022. Each year, the EV charging stations cost an estimated \$43,000 to operate (see Appendix II – EV Charging Station Operating Costs). There is currently no user fee to recover operating costs.

By offering free charging station use, the Region has and continues to experience the challenge of EV drivers remaining plugged-in for extended durations after their battery has fully charged. Prior to the pandemic, Level 2 charging station users were overstaying more than one hour on average at 7120 Hurontario and 10 Peel Centre Drive, preventing other drivers from accessing these publicly available stations.

The Region's Long Term Financial Planning Strategy's 'Users pay where appropriate' principle aims to balance growth-related investments with revenue to achieve intergenerational equity. Implementing user fees for charging station use aligns with this principle.

For these reasons, staff propose a user fee for EV charging stations that are open to employees and the general public.

3. Proposed User Fees

In alignment with the 2020-2030 Climate Change Master Plan, the Region's objective is to be a leader in employee EV adoption, while influencing and enabling members of the public to drive electric.

User Fees for Electric Vehicle Charging Stations

As the large majority of EV charging currently takes place at drivers' homes^{iv}, user fees that align with average residential electricity rates in the Region of Peel are being proposed to encourage continued use of Region provided charging stations. The proposed rates should enable EV uptake as they are low when compared to current fees in the community and surrounding areas (see Appendix III – EV Charging Fees Comparison). That said, if the proposed fees are implemented, it will still be more cost effective for EV drivers to take advantage of lower off-peak electricity rates if they elect to charge their vehicle at home overnight, especially if Ontario's proposed 'Voluntary Enhanced Time-of-Use Rate' with an 'Ultra-Low Overnight Price'^v comes into effect.

Table 2 presents the proposed user fees to be added to Schedule A to By-law 43-2002 as amended, under Part 1: CORPORATE SERVICES – General Corporate. Public notice of this amendment to the Fees By-law has been given pursuant to Region of Peel Public Notice Policy G00-16. If approved, the fees would be implemented on September 6, 2022.

Table 2: Proposed User Fees for EV Charging Stations provided by the Region

Electric Vehicle Charging Stations

Description of Service/Activity for which the Fee or Charge is being imposed	Service Unit	Fee	HST (+ of n/a)	Fee inclusive of applicable taxes
Level 2 Electric Vehicle Charging Station Use	Per Hour Plugged-In (prorated)	\$0.885 (\$0.0145/minute)	+	\$1.00 ¹ (\$0.0167/minute)
Level 3 (50 kW DCFC) Electric Vehicle Charging Station Use	Per Hour Plugged-In (prorated)	\$6.91 (\$0.115/minute)	+	\$7.80 (\$0.130/minute)

4. Piloting User Fees

The Region's objectives for implementing the proposed user fees are to:

- Ensure drivers move their EVs after their battery is sufficiently charged;
- Respect the taxpayer by recovering a portion of operating costs; and
- Encourage the continued use of Region provided charging stations.

If the proposed fees are implemented and to evaluate if user fee objectives are being achieved, staff will monitor three metrics: the duration vehicles remain plugged-in following their battery being charged, revenues versus operating costs, and the amount of electricity provided to EVs.

¹ Hourly Level 2 Charging Rate will be reduced where Power Sharing is in place. Power sharing is when two charging connectors split the full power output when two vehicles are plugged in at the same time. This configuration is currently in place at Peel Regional Police Headquarters and these stations are not accessible to the public.

User Fees for Electric Vehicle Charging Stations

Following this pilot phase, if adjustments to the initial fees are advisable to achieve the user fee objectives, recommendations will be brought to Regional Council through the 2024 Budget and User Fees By-Law update.

RISK CONSIDERATIONS

Due to the cost effectiveness of overnight charging at home, there is a high likelihood EV charging station use will initially decrease below historic levels when a user fee is first implemented. However, charger use is anticipated to rebound as electric vehicle ownership increases amongst the employee base and community.

There is a low to medium likelihood that users will continue to remain plugged-in for extended durations after their battery is charged. If this behaviour continues, it will limit the availability of charging stations for other EV drivers. Staff will monitor this and recommend adjustments to the user fee if appropriate.

There are job specific and situational risks where it may be challenging for certain staff to move their vehicles after charging has completed. If workplace charging is essential for these employees (*i.e. charging at work is critical for employees to make their roundtrip commute*), arrangements to move their vehicle or paying additional fees would have to be accommodated.

FINANCIAL IMPLICATIONS

Based on 2020 charging station use, estimated annual user fee revenues for the Region's 72 stations will be \$34,000; whereas annual operating costs are estimated at \$43,000. Numerous factors including remote work, a rapid increase in the amount of EVs driven by employees and residents, and initiating a user fee, all have the potential to increase or decrease charging station use, and therefore revenues, operating costs and cost recovery ratios.

CONCLUSION

Implementing a user fee for electric vehicle charging stations will allow the Region to serve more drivers with existing infrastructure, support greater adoption of EVs by employees and community, recover a portion of operating costs, and is consistent with the Region's 'Users pay where appropriate' financial principle.

APPENDICES

Appendix I – EV Growth in Peel Region
Appendix II – EV Charging Station Operating Costs
Appendix III – EV Charging Fees Comparison

Authored By: Adam Vaiya, Advisor, Office of Climate Change and Energy Management



Gary Kent, CPA, CGA, ICD.D, Chief Financial Officer and Commissioner of Corporate Services

User Fees for Electric Vehicle Charging Stations

ⁱ Natural Resources Canada: Zero Emission Vehicle Infrastructure Program – Source: <https://www.nrcan.gc.ca/energy-efficiency/transportation-alternative-fuels/zero-emission-vehicle-infrastructure-program/21876>

ⁱⁱ Ontario Newsroom: Ontario Boosting Electric Vehicle Charging Availability - Source: <https://news.ontario.ca/en/release/1001255/ontario-boosting-electric-vehicle-charging-availability>

ⁱⁱⁱ Forbes Wheels: What are the different levels of electric vehicle charging? - Source: <https://www.forbes.com/wheels/advice/ev-charging-levels/>

^{iv} Clean Air Partnership: GTHA EV Ready Costing Study – Source: <https://cleanairpartnership.org/cac/wp-content/uploads/2021/10/2-21-050-GTHA-EV-Ready-Costing-Study-2021.10.14.pdf>

^v Ontario: Proposal to Enable a New Voluntary Enhanced Time-of-Use Rate Including Consideration of a New Ultra-Low Overnight Price – Source: <https://ero.ontario.ca/notice/019-5054>