



Council Report

Report Number: FL2021-003

Meeting Date: December 14, 2021

Title: Feasibility of Transition of Fleet to Electric

Description: Establish a feasibility plan for the transition of the City's non-emergency fleet to electric vehicles

Author and Title: Rodney Porter, Manager of Fleet and Transit, Public Works

Recommendation(s):

That Report FL2021-003, **Feasibility of Transition of Fleet to Electric**, be received.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

At the Council Meeting of February 23, 2021, Council adopted the following resolution:

CR2021-113

Moved By Councillor Veale

Seconded By Councillor Yeo

That Report FL2021-001, **Fleet Services Review**, be received

Carried

CR2021-114

Moved By Councillor Veale

Seconded By Councillor Richardson

That Staff establish a feasibility plan and a timeline for transforming the City's Fleet to electric vehicles and report back by the end of Q4, 2021.

This report addresses that direction.

Rationale:

Timing is optimal for the City to consider Electric Vehicle (EV) and EV charging implementation. The industry has now moved from being leading edge or new to main stream as 6.2% of all passenger vehicles purchased in Canada for 2020 were of EV configuration. Brands and models are more readily available and capital cost are coming in line with their internal combustion engine counterparts.

June of 2021, the Federal Government announced it would adopt requirements for 100% of passenger vehicle sales to be zero emissions or EVs by 2035 accelerating Canada's previous goal of 100 percent sales by 2040.

The two main challenges for the City of Kawartha Lakes is the geographical size of our municipality and the existing charging station network, or the lack thereof. Without a robust charging network both municipal and private EV uptake/transition can not take place.

Municipalities with large populations like the City of Toronto completed an Electrical Mobility Strategy in 2018 followed by an Electric Vehicle Strategy in 2019. Both were referenced and utilized as a resource for this report.

<https://www.toronto.ca/wp-content/uploads/2019/05/9685-EMS-Assessment-Phase-Final-Project-Report.pdf>

<https://www.toronto.ca/wp-content/uploads/2020/02/8c46-City-of-Toronto-Electric-Vehicle-Strategy.pdf>

These important documents combined with the attached report can be utilized to move the City of Kawartha Lakes (City) forward into an EV and EV Charging Implementation plan. The City can reference and leverage the standards set and the expertise gained by some of our neighbouring municipalities that have already embarked on the EV journey. This will allow the City to accelerate the program and conserve resources and funds for implementation of the infrastructure.

The EV and EV Charging Implementation Plan

To support EV uptake both for the City’s fleet and our community, a capital investment will be required. As a pilot or starting point, 20-40 ports should be considered. The capital investment would be between \$300,000 and \$750,000. This would allow for both level 2 and some level 3 charging. Grant applications are currently available through NRCan and this project would be in line with the required criteria. Should the City be successful in receiving 50% funding from NRCan, the City’s capital investment could be reduced to between \$150,000 and \$375,000. The EV and EV charging transition is imminent and it would be ideal and wise to benefit from these grant programs while they are available.

Figure 17 below, taken from Appendix A attached to this report depicts what the fleet replacement plan could look like if the City met the EV uptake goal for passenger vehicles set out above. Figure 18 below, taken from Appendix A attached to this report shows the percent of passenger vehicle goal accomplishment. *Busses and medium duty trucks are excluded from the total*

7 Year EV Fleet Procurement																
Project Title	Category	2024		2025		2026		2027		2028		2029		2030		Total
		ICE	EV	ICE	EV	ICE	EV	ICE	EV	ICE	EV	ICE	EV	ICE	EV	
Buses	Transit	2	-	1	-	1	-	-	1	-	1	-	1	-	1	8
Medium Duty Trucks	Fleet	2	-	2	-	2	-	1	-	1	-	1	1	-	1	10
Cars	Fleet	1	2	-	3	0	-	0	-	-	1	-	1	-	2	8
Pick up Trucks	Fleet	6	-	1	2	-	1	0	-	-	2	-	3	-	7	15
Single Axle Trucks	Fleet	1	-	0	-	1	-	1	-	0	-	1	-	2	-	6
Tandem Trucks	Fleet	4	-	7	-	4	-	4	-	5	-	5	-	0	-	29
Vans	Fleet	2	5	-	2	-	1	0	-	-	1	-	6	-	1	17
Total		18	7	11	7	8	2	6	1	6	5	7	12	2	12	93
Grand Total		25		18		10		7		11		19		14		104

(Figure 17)

EV Implementation			
Year	% of Fleet	Units	Actual
By 2025	5%	14	7%
By 2030	20%	40	20%

(Figure 18)

Please keep in mind the attached EV Implementation Plan is a high level plan that will require approval and refining but can be utilized as a starting point and step forward in the process. This plan will also impact the financial commitments of the Fleet Division as the initial capital cost of EVs is higher than that of gas powered vehicles. Also, transition to EVs cannot occur without timely and strategic capital investment in EV Charging infrastructure. None of these incremental costs are currently included in the City’s capital plan.

Other Alternatives Considered:

No alternatives were considered as this feasibility report is being provided in response to direction from Council.

Council could opt to accelerate the City’s EV readiness and direct Staff to add a project to establish a plan, request grant funding and commence installation of EV charging stations at strategic locations in the City. A funding source will need to be identified for this expenditure. This is further reviewed in the Financial section of this report.

Alignment to Strategic Priorities

1. Healthy Environment

Moving the City’s fleet towards zero emission options and supporting the transition from fossil fuel internal combustion engines (ICE) to Electric Vehicles (EV) is directly in line with the City of Kawartha Lakes 2020-2023 Strategic plan. There is great cohesion with the City’s vision and mission statements while aligning with our guiding principals and strategic priorities.

The increased uptake of electric vehicles is expected to make a significant contribution towards meeting emission reduction targets set out by both provincial and federal governments.

This report directly aligns with Healthy Environment in the below areas:

Implement the Healthy Environment Plan

- Execute the action plan with key partners and stakeholders

Develop and execute a Green City Charter, our corporate commitment to leadership in environmentally friendly business practices

- Reduce our corporate carbon footprint
- Create an efficient facility model
- Environmentally efficient municipal infrastructure
- Green procurement policy
- Green Fleet program and practices

2. A Vibrant and Growing Economy

Create an environment to attract business to Kawartha Lakes

- Support downtown revitalization to ensure our communities have a strong core
 - Placing Charging Infrastructure in our downtown cores will promote extended patronage by EV users

Enhance tourism

- Increase the visitor spend in Kawartha Lakes
 - Will naturally happen as EV users will visit local business as charging takes place

Financial/Operation Impacts:

There are no immediate financial impacts from receiving this report as written. However, in order to implement an EV transition plan, there will be need for incremental financial commitments.

To advance this schedule, Council could opt to direct Staff to fund procurement and installation of 20-25 EV charging stations at an approximate value of \$300,000- \$400,000 in 2022 by funding the project initially from a qualifying reserve. There is a possibility to receive a grant of up to 50% of the value of this procurement (NRCan).

Should Council wish to commence transition of EVs in 2024 as contemplated by the attached report, budget allocation of \$300,000- \$400,000 will be needed in 2023 to commence procurement and installation of 20-25 EV Charging stations. Staff could be directed to proceed with the NRCan grant application submission process to support a 2023 project. If successful, the grant funding would help reduce the capital commitment from the City.

Consultations:

Office of Strategy Management
Treasurer
Director of Engineering and Corporate Assets
Chargepoint+, Steve Wickens
Conepar Canada, Stacey Corley

Attachments:

Appendix A – Feasibility Plan for the Transition of the City’s Fleet to EVs



Feasibility Plan for
the Transition of The

Department Head email: brobinson@kawarthalakes.ca

Department Head: Bryan Robinson, Director of Public Works