

City of Mississauga Corporate Report



Date: October 22, 2020 To: Chair and Members of General Committee	Originator's files:
From: Shari Lichterman, CPA, CMA, Commissioner of Community Services	Meeting date: November 18, 2020

Subject

Green Fleet and Equipment Policy and Electric Vehicle Charging Station Standard

Recommendation

That the report entitled "Green Fleet and Equipment Policy and Electric Vehicle Charging Station Standard" from the Commissioner of Community Services, dated October 22, 2020, be approved.

Report Highlights

- In December 2019, Council approved the City's first comprehensive Climate Change Action Plan (CCAP). This followed a resolution from Council in June 2019, declaring a climate emergency in Mississauga.
- The CCAP sets out two main goals for both the Corporation and community:
 - Reduce greenhouse gas (GHG) emissions 80% below 1990 levels by 2050, with a long-term goal of becoming a net-zero community. The interim target being 40% GHG emissions reduction by 2030; and
 - Increase resilience and the capacity of the City to withstand and respond to climate events. The goals are the same for the City and for the community.
- The majority of Corporate emissions are the result of operating the City's fleet and equipment, which accounts for 78% of total Corporate emissions (as of 2017). In order to achieve the City's GHG reduction targets of 40% by 2030 and 80% by 2050, the City will need to significantly decrease emissions from its fleet and equipment.
- The Green Fleet and Equipment Policy (Policy) is a critical first step and required course of action that will lay the foundation for management and staff on how to prioritize low or zero emissions fleet and equipment purchases and improve in-service utilization of existing fleet and equipment (e.g. driver behaviour training, right-sizing) to reduce GHG

emissions.

- The Electric Vehicle Charging Station (EVCS) Standard describes minimum requirements and specifications for EVCS hardware, networking and management platforms, and customer support services provided at buildings and spaces owned and/or operated by the City of Mississauga.
- Once the Policy is approved by Council, a Green Fleet and Equipment Working Group will be established to provide expert advice on the direction the City should be taking with respect to the acquisition of low or zero emissions fleet and equipment and the sustainability of existing assets in service (e.g. training programs).

Background

In December 2019, Council approved the City's first comprehensive Climate Change Action Plan (CCAP).

The CCAP sets out two main goals for both the Corporation and the community:

- Reduce GHG emissions 80% below 1990 levels by 2050, with a long-term goal of becoming a net-zero community. The interim target being 40% GHG emissions reduction by 2030; and
 - Increase resilience and the capacity of the City to withstand and respond to climate events.
- The goals are the same for the City and for the community.

Currently, the majority of emissions from municipal operations are the result of operating the City's fleet and equipment (including corporate fleet, fire, and transit), which accounts for 78% of total corporate emissions (as of 2017). While total corporate emissions have decreased since 1990, emissions from the transit fleet have continued to increase. This is largely due to the growth in the MiWay diesel bus fleet and levels of service throughout the City.

The Climate Change Action Plan identifies a series of actions to reduce emissions from the Corporate and transit fleets, including:

- Action #17: Reduce Emissions from the City's Corporate and Transit Fleet
 - 17-2: Develop a green fleet policy to (1) prioritize electrification opportunities for all City fleets and equipment; and (2) continue to identify opportunities for proper vehicle allocation, route optimization, and right-sizing fleet
 - 17-3: Electrify the light duty transit vehicles and Corporate fleet and equipment and expand use of renewable fuels

In order to achieve the City's GHG reduction targets of 40% by 2030 and 80% by 2050, as outlined in the CCAP, the City will need to significantly decrease emissions from its fleet and equipment. This can be achieved by making investments in zero emissions options, such as electric vehicles (EVs), which will require new and/or upgraded infrastructure, and by optimizing the operations of current fleet and equipment through driver behaviour, training, and route optimization, which can result in a reduction of fuel use by as much as 25%.

Present Status

Electrification of the City's fleet and equipment will be phased in over time and will depend on available products (e.g. vehicles and equipment), technologies, and infrastructure. Between 2020-2030, there is an opportunity to replace over 50% of the Corporate light-duty fleet and equipment, 100% of all light-duty (support vehicles) in the Fire fleet, and ~100% of the MiWay fleet, which includes both buses and light-duty (non-revenue) fleet vehicles, to low or zero emissions technologies. This is based on anticipated technology availability and replacement schedules. Together, this could lead to a reduction in Corporate GHG of ~22,000 tonnes of carbon dioxide equivalency (t/eCO₂) by 2030, which will result in a 28% reduction in Corporate GHG emissions (below 1990 levels). This will help the City achieve the majority of its 2030 GHG reduction target of 40% (below 1990 levels).

Comments

City leadership on climate action is essential to creating momentum for broad uptake and action in the community. The Green Fleet and Equipment Policy is a critical first step and required course of action that will lay the foundation for management and staff on how to prioritize low or zero emissions fleet and equipment purchases and improve in-service utilization of existing fleet and equipment (e.g. driver behaviour training, right-sizing) to reduce GHG emissions. The Policy complements other efforts in the City that contribute to reducing GHG emissions and improving air quality, such as the Idling Control By-law and the Unnecessary Vehicle Idling policy.

To support the implementation of the Green Fleet and Equipment Policy, a decision making framework (Appendix 2) has been developed for management and staff for asset acquisition as well as optimizing the sustainability of assets already in service. The framework will be included as an appendix to the Policy.

The Green Fleet and Equipment Policy is also supported by an Electric Vehicle Charging Station (EVCS) Standard (Appendix 3), which outlines the appropriate information to base specifications and designs for facilities owned and operated by the City of Mississauga in relation to electric vehicle charging stations. The Standard describes minimum requirements and specifications for EVCS hardware, networking and management platforms, and customer support services provided at buildings and spaces owned and/or operated by the City of Mississauga. It will be included as an appendix to the policy and will be used to guide the installation of EVCSs on City property (for both public and private use) going forward.

The Policy and the supporting EVCS Standard have been developed in consultation and ongoing collaboration with both a Core Team and a Steering Committee, which included representatives from Works Operations Maintenance, MiWay, Risk Management, Capital Design and Construction, Environment, Energy Management, Corporate Performance and Innovation, IT, and Municipal Parking.

To drive the implementation of the Green Fleet and Equipment Policy and to support the coordination of electrifying the City's fleet, a Green Fleet and Equipment Working Group has been established. This Group will continue to provide advice on the direction the City should be taking with respect to the acquisition of low or zero emissions fleet and equipment and the sustainability of existing assets in service (e.g. training programs); ensure roles and responsibilities throughout the organization are clearly defined; and, track new advancements in low or zero emissions technologies for fleet and equipment.

As the City continues to electrify its fleet and equipment, sufficient charging infrastructure will be required in order to put electric fleet and equipment into operational use. This will require an enhanced level of inter-departmental coordination to ensure all departments and divisions are appropriately engaged.

Strategic Plan

The Green Fleet and Equipment Policy supports four pillars of the City's Strategic Plan:

- Move: the Policy supports the strategic goal to Develop Environmental Responsibility.
- Connect: the Policy supports the strategic goal to Provide Mobility Choices.
- Green: the Policy supports the strategic goals to Lead and Encourage Environmentally Responsible Approaches; and Promote a Green Culture.

Financial Impact

There are no financial impacts resulting from the Recommendations in this report. The policy acts as a framework for decision making on conversion of fleet and equipment. Any premiums associated with alternate fleet and equipment will be captured through regular capital and operating budget requests.

Conclusion

It is the aspiration of the City of Mississauga to become a net zero community, recognizing the need to further accelerate climate action and limit global temperature rise to 1.5 degrees Celsius. The Green Fleet and Equipment Policy is a critical first step and required course of action that will lay the foundation for management and staff on how to prioritize low or zero emissions fleet and equipment purchases and improve in-service utilization of existing fleet and equipment (e.g. driver behaviour training, right-sizing) to reduce GHG emissions from the City's fleet, which is currently the most significant source of Corporate emissions. Dedicating the appropriate resources to the implementation of the Policy will be crucial to its success and, by extension, the success of the City's climate change program and the City's ability to achieve the targets outlined in the CCAP.

With Council's approval, the Green Fleet and Equipment Policy will demonstrate the City's commitment to reducing Corporate GHG emissions and will help the City achieve its climate change goals and targets.

Attachments

Appendix 1: Green Fleet and Equipment Policy

Appendix 2: Decision Making Framework

Appendix 3: Electric Vehicle Charging Station Standard



Shari Lichterman, CPA, CMA, Commissioner of Community Services

Prepared by: Leya Barry, Climate Change Specialist