



SUBJECT: Electric Mobility Strategy

TO: Environment, Infrastructure & Community Services Cttee.

FROM: Environment and Energy

Report Number: EICS-16-22

Wards Affected: N/A

File Numbers: 210-09

Date to Committee: September 15, 2022

Date to Council: September 20, 2022

Recommendation:

Receive and file environment, infrastructure and community services department report EICS-16-22 regarding the Electric Mobility Strategy as presented in Appendix A; a strategy to provide guidance to the city and local stakeholders to take action and accelerate electric mobility adoption in the community.

PURPOSE:

Vision to Focus Alignment:

- Increase economic prosperity and community responsive city growth
- Improve integrated city mobility
- Support sustainable infrastructure and a resilient environment
- Building more citizen engagement, community health and culture
- Deliver customer centric services with a focus on efficiency and technology transformation

The purpose of this report is to present the Electric Mobility Strategy which provides a pathway for the community of Burlington to transition to electric mobility, a key program area identified in the [Climate Action Plan](#) necessary to achieve the target to become a net carbon neutral community by 2050.

Background and Discussion:

On July 13, 2021, Council directed staff to work with BurlingtonGreen to complete a community based Electric Mobility Strategy ([EICS-13-21](#)):

Authorize the Mayor and Clerk to enter into an agreement with BurlingtonGreen to complete a community based Electric Mobility Strategy in partnership with the City of Burlington to the satisfaction of the Executive Director of Legal Services; and

Authorize the Mayor and City Clerk to enter into the necessary agreement, along with any other related documents or bylaws, with an external funding source should the funding be approved, to complete an Electric Mobility Strategy for Burlington, subject to the satisfaction of the Executive Director of Legal Services & Corporation Counsel (as previously outlined in Environment, Infrastructure and Community Services report [EICS-07-21](#) at the June 10 EICS meeting).

The partnership with BurlingtonGreen to develop the Electric Mobility Strategy was recommended based on their community programs and connections to support the transition to be a low carbon and sustainable community. Their established 'Make the Switch' program takes a holistic approach to promote 'think outside the car' modes of transportation such as walking, cycling, transit and a shift to electric mobility.

Electric Mobility Strategy

The purpose of developing an Electric Mobility Strategy is to provide a pathway for the City and community to support the transition to low to zero emission vehicles. Electric mobility was identified as a key program area in the Climate Action Plan, approved by Council in 2020, to reach the target to be a net zero carbon community by 2050.

The scope of the project includes light duty vehicles as well as electric (e) micro mobility options (ie. e-bikes and e-scooters - kick or stand up versions) as emerging low emission modes of transportation. Out of scope for this project are heavy duty vehicles and transit buses. Some actions relate to the City fleet to be considered as the City develops a new Green Fleet Strategy for its own operations. Burlington Transit is working with CUTRIC (Canadian Urban Transit Research and Innovation Consortium) to assess the feasibility of zero emission buses.

Objectives:

The objectives of the strategy include:

- Expand access to public and private electric charging.

- Increase awareness and support for electric vehicles and electric micro mobility options such as e-bikes and e-scooters.
- Build an “EV (electric vehicle) supportive” policy framework.
- Support an equitable transition to electric mobility in the community.

Related to this initiative is the development of the City’s Integrated Mobility Plan currently underway by Transportation Services, with a focus on moving people via sustainable transportation options, such as walking, cycling and transit. These modes must be prioritized at the top of the transportation hierarchy to achieve a healthy and livable city. However, in order to meet the community net carbon neutral target, electric (low to zero emission) mobility must also be supported.

Themes and Actions:

The recommended strategy is attached as Appendix A and includes four themed action areas, sub-themes, and actions. Each action includes a lead department, service area or agency, along with partners identified for collaboration and a recommended timeline (short 1-2 years; medium 2-5 years; and long 5-10 years). Some actions are already in progress and/or ongoing.

Theme 1: Charging Infrastructure and Grid Capacity

Sub-theme 1.1: Residential and Workplace Charging

- Six actions related to zoning and parking bylaws; EV ready guide for new developments; updates to the Sustainable Building and Development guidelines; and support for EV charging in multi-residential buildings; support homeowners through the HERO project; and explore opportunities to support workplace charging.

Sub-theme 1.2: Public Charging Network

- Three actions related to supporting the public charging network, such as a gap analysis and prioritizing fast chargers; exploring and assessing public/private partnerships; e-bike and e-scooter charging infrastructure; and engaging Halton Region.

Sub-theme 1.3: Grid Capacity

- Five actions related to assessing impacts to grid and identifying mitigation strategies; monitoring emerging technologies; partnering with Burlington Hydro to monitor EV ownership data; encouraging homeowners to advise BH when they have installed a charger; and advocacy for a provincial ultra-low overnight electricity rate.

Theme 2: City Leadership

Sub-theme 2.1: Advocacy

- Five actions related to advocacy for a provincial EV mandate; advocacy for EV purchase incentives; sharing knowledge with government working groups to guide future policy; advocacy for Ontario EV manufacturing; and advocacy for EV ready standards/requirements in new developments.

Sub-theme 2.2: Support the Local EV Market

- Four actions related to continue efforts to attract car and bike-sharing operators with electric mobility options; explore bulk EV purchasing with other municipalities for fleet; assess feasibility of e-bike/e-scooter public charging (outdoors); and explore opportunities for secure parking for micro mobility options.

Sub-theme 2.3: City Fleet

- Three actions related to accelerate rate of electrification of City's fleet and equipment; update City's Green Fleet Strategy; and identify opportunities for staff training for EV maintenance/operations.

Theme 3: Education and Awareness

- Six actions related to clearly marked EV charging spots; branding the City's electric fleet; establishment of an electric mobility hub for EV resources and support; continue to host electric mobility events; encourage EV ready features in real estate listings; and explore opportunities and partnerships to deliver education programs on low carbon transportation modes.

Theme 4: Equity and Accessibility

- Three actions related to ensure equitable distribution of City owned EV chargers across community on city property with accessible design standards; explore opportunities to offer incentives for e-bikes and e-scooters; and develop engagement campaigns for underrepresented groups.

Implementation – Let's PlugNGo!

The implementation of the strategy recommendations is an opportunity for the City of Burlington to demonstrate leadership in climate action and paves the way to achieve the community carbon neutrality goal. The implementation of an Electric Mobility Hub would involve:

1. E-Mobility Community Engagement and Web Resource

Through year-round in person events, a social media engagement campaign, and a “one stop” web EV resource that will serve as a centralized digital aggregator of up to date e-mobility information, contacts and resources, the community will discover the many opportunities and benefits of EVs and e-micro mobility options, thereby accelerating local buy in while providing a smoother transition to EV adoption. Additionally, an annual “EV Showcase” event will be hosted in collaboration with local partners and the EV supply chain, providing test drives, educational resources, and an opportunity to meet EV ambassadors in the community.

2. E-Mobility Resource Group

Comprised of local residents, relevant municipal and local utility staff identified as leads and collaborators in the actions sections of this strategy, in addition to e-mobility and charging infrastructure suppliers, the Resource Group members will collaborate to advance key policy and recommendations of the E-Mobility Strategy to support higher electric mobility uptake.

Strategy/process

The process to develop the strategy included background research, a best practices review of other municipal EV/zero emission strategies, data collection (EV sales and ownership), stakeholder interviews and a community survey. In addition, a month long event with Plug’n Drive sponsored by the City and Burlington Hydro engaged residents from Burlington and surrounding municipalities on the benefits of electric vehicles and provided opportunities for test drives. Feedback from participants helped to inform the strategy.

An advisory committee was formed which included staff and local stakeholders to provide feedback and guide the development of the strategy. Draft recommended actions were shared with key stakeholders and were also posted on getinvolvedburlington.ca for a two week period for public feedback in June, prior to finalizing the strategy.

Options Considered

Doing nothing represents a business as usual approach. Although a transition to low to zero emission vehicles will occur as the market evolves and senior governments support and mandate change, implementing actions at the local level will help to accelerate the transition in Burlington.

Next Steps

Staff will assess the recommended actions and identify priorities and determine resources required to implement the plan in consultation with the Climate Action Plan Community Stakeholder Advisory Committee. Some actions can be implemented through staff time in collaboration with key stakeholders. However, the implementation of a community based Electric Mobility Hub to be responsible for community/stakeholder engagement activities and coordinate an advisory group is anticipated to require additional financial resources. A call for proposals could be an option to assess community interest in establishing the hub. Staff will also assess potential synergies with the delivery of the Better Homes Burlington program (pending budget approval).

The time horizon for the strategy is five years after which a full review of progress will be completed with a community engagement process to identify gaps to be addressed.

Financial Matters:

Total Financial Impact

The Electric Mobility Strategy was completed for \$50,000 as budgeted.

Source of Funding

The following is a breakdown of the funding sources for this project. External funding of up to \$25,000 has also been approved by the Ministry of Energy, Northern Development and Mines, which may offset the Burlington's contributions below.

Enbridge Gas Inc. – contribution in 2021 to support the Climate Action Plan	\$10,000
City of Burlington Green Initiatives Reserve Fund (approved)	\$15,000
City of Burlington Energy Reserve Fund	\$25,000
TOTAL	\$50,000

Other Resource Impacts

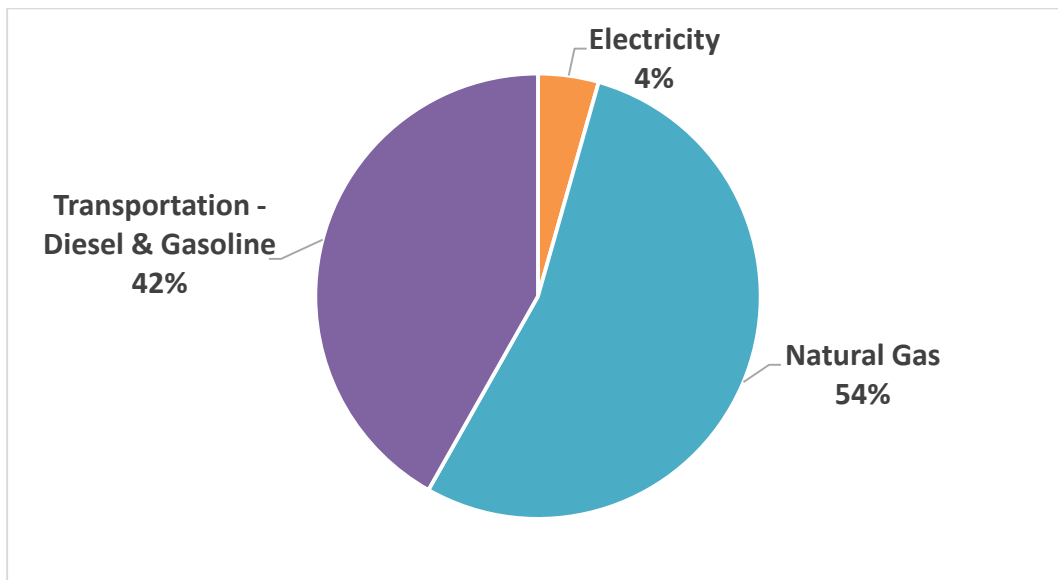
The Manager of Environmental Sustainability has been engaged throughout the project working in tandem with BurlingtonGreen. Other City staff have also been involved by providing information, one on one meetings and participating in advisory group meetings.

Funding for City led initiatives for the implementation of the strategy will depend on separate business cases for actions where necessary, particularly for the establishment of a community based Electric Mobility Hub. Staff are assessing potential synergies with the Better Homes Burlington program, which is pending budget approval for 2023. External funding sources will also be explored to support implementation of the strategy, possibly in partnership with community partners. Many of the actions will require staff time, partnerships and collaboration.

Climate Implications

Emissions from the transportation sector (based on fuel sales) represent over 40% of the community emissions in Burlington. Supporting electric mobility will help to reduce emissions from this sector.

2021 Community Emissions by Source as a Percentage



Engagement Matters:

The Burlington community, various stakeholders and City staff were engaged during the Strategy development phase to inform actions to advance electric mobility in the community and to ensure that these actions reflect the community's transportation needs and preferences.

Engagement opportunities included:

3 community surveys were posted on getinvolvedburlington.ca:

- Plug-in electric vehicles (included both battery electric vehicles and plug-in hybrid electric vehicles)
- Electric bikes
- Electric scooters

The surveys gathered information on the public's perspective and experiences on different aspects:

- Barriers and opportunities to higher electric mobility adoption
- Ownership challenges
- Charging needs and preferences
- The role of electric bikes and electric scooters
- The role of government and individuals in accelerating electric mobility adoption

One on one interviews were held with representatives from different City departments and the EV supply chain industry. Local stakeholders (staff and community) were invited to participate on an advisory committee; three meetings were hosted to solicit feedback and input at different stages of the strategy development.

A month long event was hosted in the spring by [Plug'n Drive](#) with their [MEET - Mobile Electric Vehicle Education Trailer](#) providing EV test drives, EV resources and an opportunity to talk to local EV ambassadors – sponsored by the City and Burlington Hydro.

Additionally, a social media campaign was launched to engage the community on the benefits of electric mobility, including a popular 'Share your EV Story' feature, showcasing local EV owners' experience and advice to future EV owners.

Further details can be found in the Community Engagement Report in Appendix B and a Community Engagement Summary in Appendix C..

Conclusion:

The recommended Electric Mobility Strategy is a key program area identified in the Climate Action Plan to achieve the target to become a net carbon neutral community by

2050. Partnerships and collaboration with community stakeholders and organizations, along with financial investment, will be key to achieving success.

Respectfully submitted,

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Appendices:

- A. Electric Mobility Strategy
- B. Electric Mobility Community Engagement Report
- C. Electric Mobility Community Engagement Summary

Report Approval:

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.