RURAL MUNICIPAL FLEET ELECTRIFICATION ROADMAP:

Colchester, Nova Scotia

Vision Statement

To support a practical, equitable, and phased transition toward transportation electrification in Colchester by improving fleet efficiency, expanding charging infrastructure, and strengthening community resilience. This strategy aims to reduce emissions, lower long-term operational costs, and ensure that electrified mobility solutions enhance service delivery while aligning with Nova Scotia's 2050 net zero goals.

Benefits Identified for the Community

Environmental

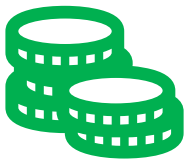
- Reduces greenhouse gas emissions from municipal operations, supporting community and provincial climate goals
- Improves local air quality by lowering tailpipe emissions, benefiting residents and staff
- Decreases noise pollution from municipal vehicles, improving comfort in residential and downtown areas.

Institutional & Regional

- Supports right sizing of the municipal fleet and more efficient use of resources.
- Improves fleet management through stronger data tracking and lifecycle planning.
- Helps maintain reliable service delivery by reducing downtime and simplifying maintenance.
- Enables collaboration with neighbouring municipalities on shared infrastructure and procurement.

Economic

- Lowers long term operating costs through reduced fuel consumption and fewer mechanical repairs
- Provides more predictable budgeting as electricity prices are generally more stable than gasoline and diesel
- Expands eligibility for external funding programs that prioritize low carbon municipal projects
- Creates opportunities for local trades and service providers to develop skills in EV charging and fleet maintenance.



Social & Community

- Demonstrates municipal leadership and signals commitment to sustainability
- Improves safety with smoother, quieter vehicles and reduced emissions exposure
- Helps build awareness and public interest in EVs through visible municipal use

Action Items

Short-Term Strategies (0-5 Years)

- Conduct an assessment of fleet composition, duty cycles, fuel use, and priority charging locations
- Complete feasibility and cost studies to evaluate total cost of ownership for early fleet transitions
- Install initial Level 2 chargers to build baseline charging capacity and support pilot vehicle deployments.
- Repurpose municipal or underused properties, such as brownfield sites, for charging or fleet facilities
- Pilot early fleet transitions by introducing one or two electric models in high-visibility or low-mileage roles, collecting data to inform larger procurement decisions.
- Provide EV training and information sessions for municipal staff
- Launch public awareness efforts to share information on EV incentives, operational benefits, and reliability
- Strengthen collaboration through the RESAlliance by coordinating procurement, sharing fleet data, and jointly pursuing funding opportunities.
- Work with Nova Scotia Power to evaluate grid capacity at priority sites and begin planning for any required upgrades to support future charging needs.

Long-Term Strategies (5-15 Years)

- Transition medium and heavy-duty municipal vehicles as models become available and financially feasible
- Develop a long-term fleet replacement schedule that prioritizes electrification and lifecycle cost efficiency
- Expand the municipal charging network across multiple sites to support broader fleet adoption
- Integrate renewable energy systems, such as solar generation, into municipal charging infrastructure
- Partner with neighbouring municipalities to explore shared charging hubs and regional fleet solutions
- Embed fleet electrification goals into municipal transportation, climate action, and asset management plans
- Expand workforce development opportunities by supporting ongoing training for local electricians, mechanics, planners, and fleet managers in EV technologies and infrastructure.
- Track key indicators such as emissions reductions, charger usage, operational savings, and fleet conversion rates
- Maintain transparent communication with council, staff, and residents by publishing regular updates and celebrating key milestones that reflect community progress

About the Project

This strategy was developed as part of the Community-Based Planning and Design for the Electrification of Transport Systems in Rural Municipalities project, led by Dalhousie Transportation Collaboratory (DalTRAC) and funded by the Low Carbon Communities (LCC) program through the Nova Scotia Department of Natural Resources and Renewables. The project engaged rural communities across the province to co-design local electrification strategies.