

How smaller municipalities can reduce transportation emissions

Over a quarter of New Brunswick's emissions come from the transportation sector. Personal vehicles – cars, SUVs and pickup trucks – generate most of those emissions. **Here are some alternatives for communities of all sizes to consider.**

1. ACTIVE TRANSPORTATION

What: walking, cycling and, in recent years, travelling by e-bike and e-scooter

ADVANTAGES

- With zero emissions, walking and cycling are the very best ways to reduce transportation GHGs
- Walking and cycling offer the bonus of improved health and fitness
- Electric bikes have expanded the appeal of cycling to a wider audience, including seniors
- E-bikes and e-scooters are emissions-free and super-efficient



DID YOU KNOW

- The Town of St. Andrews is expanding its municipal trail network to more than 10 KM!
- The City of Fredericton has an extensive trail network, much of which is on former railway lines

KEYS TO SUCCESS

“Build partnerships with stakeholder community groups to get their input and buy-in; include your community's unique features and highlights into your design; and have a good communication strategy to promote usage, safety and satisfaction!”

– Paul Nopper, Senior Administrator,
Town of St. Andrews

“Analyze expected usage patterns in advance; make sure safety is a top consideration; and add amenities like benches, trash bins and shaded areas to enhance everyone's experience.”

– Jillian Hudgins, Environmental
Strategist, City of Fredericton

2. FIXED ROUTE BUSES

What: conventional transit; buses that service established routes on a set schedule, with interconnection points where passengers can transfer between routes



ADVANTAGES / SECRETS TO SUCCESS IN SMALLER MUNICIPALITIES:

- Choose vehicles that are rightsized to the need
- Choose routes and schedules carefully for maximum uptake, and expand as needed
- Offer free or reduced fares for students, seniors, major employers or other user groups
- Enable fare purchase by app to attract younger riders
- Integrate the schedule into Google Maps to make it easier for riders to plan travel

DID YOU KNOW

- [Miramichi Transit](#) uses 24-seat minibuses to service its three routes linking Newcastle, Chatham and Douglastown. The minibuses are painted the colour of their routes – Blue, Green or Red – and run hourly from Monday to Friday, with reduced service on Saturdays. Discounts are offered to seniors and community college students, and high school students ride for free.
- The City of Kingston, Ontario brings transit buses to schools so students can learn about how to take the bus. The program has increased student ridership from 28,000 to over 6000,000 annually!

KEYS TO SUCCESS

“Get buy-in from your community; start small and scale up as needed; develop a solid communication and marketing strategy; and be patient – success will happen, but probably not overnight!”

– *Jason Babineau, Manager, Miramichi Transit*

3. TRANSIT-ON-DEMAND

What: a flexible service where passengers request rides in advance on an as-needed basis, much like taxis, and are then picked up at a neighbourhood stop at a designated time. Transit-on-demand vehicles service zones rather than set routes, and adjust their routes constantly in accordance with real-time user demand. Bookings are typically made by phone or through the use of a mobile app



ADVANTAGES / WHY TRANSIT-ON-DEMAND (TOD) CAN BE A GOOD FIT FOR SMALLER MUNICIPALITIES:

- ToD is usually operated by small, efficient minibuses
- Vehicles only go to where they know riders are waiting or want to go, saving time and operational costs
- ToD can start small and then be scaled up as needed
- ToD can work well in areas of low population density or irregular transit demand

DID YOU KNOW

- Besides being a good fit for smaller municipalities, transit-on-demand can be used to extend the reach of conventional transit in larger municipalities. In 2023, Saint John Transit launched its FLEX transit-on-demand service in two city neighbourhoods. Riders book by phone or app, and are then picked up at a neighbourhood stop at a designated time and taken to their destination or to a connection point with the city's regular transit service. The FLEX service is provided by efficient, 22-passenger electric buses that are able to navigate neighbourhood streets easily.
- The City of Dieppe operates a similar transit-on-demand service (www.dieppe.ca/en/vivre-ici/initiatives.aspx#On-demand-transit) that connects passengers from areas outside the reach of its three fixed route buses to transfer points on those routes. The service is free for users, included in the fixed route bus fare.

KEYS TO SUCCESS

“Design your zones carefully to ensure viability of the service; select the right sized equipment; and center the service around a major community hub or a connection point to a larger transit system”

– *Charles Freake, Manager, Saint John Transit*

WHERE IT'S WORKING

Transit PEI uses a hybrid system to offer public transit between communities across the Island for just \$2. Minibuses operate on four fixed routes, and passengers must book their travel in advance by phone or app to ensure the minibus comes to their stop.

4. CARSHARING OR SHARED MOBILITY

What: an arrangement where vehicles owned by a collective – whether a corporation, co-operative, municipality or partnership – are shared by multiple drivers. Vehicles are based in a central location, and are booked by users on an as-needed basis by phone or mobile app. Drivers receive a code to access the vehicle at their appointed time, and are expected to return the vehicle to its base in time for the next user to access it. Participants in a carshare typically pay a flat monthly membership fee that covers insurance, fuel and all maintenance, plus a fee based on usage.

ADVANTAGES / WHY CARSHARES CAN BE A GOOD FIT FOR SMALLER MUNICIPALITIES:

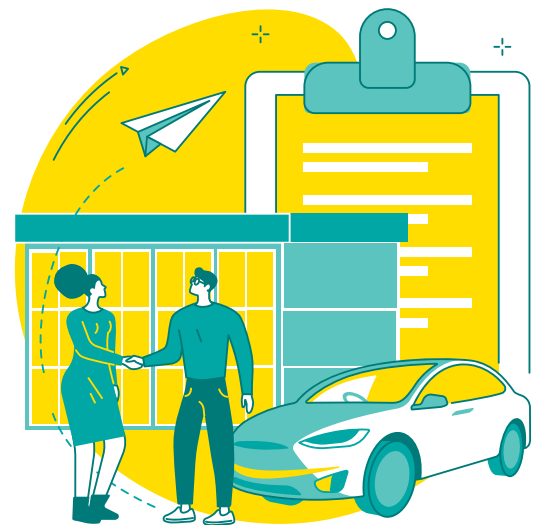
- The cost of carshare membership is usually much cheaper than the costs of vehicle ownership
- Carsharing is hassle-free because maintenance is taken care of by the collective, and all costs are included in the monthly and user fees
- Carshares are a great fit for people who only need a vehicle periodically for groceries, medical appointments or longer trips
- A carshare membership can be a money-saving alternative to owning a second vehicle
- Carshares can reduce the need for parking spaces, as one shared vehicle can replace several private vehicles
- Carshares can be a great way to introduce drivers to the benefits, savings and nuances of electric vehicles

WHERE IT'S WORKING

Project: Village Car Share is operated by Eastern Charlotte Waterways in the communities of St. Stephen, St. Andrews and Grand Manan. The carshare's three electric vehicles are based at charging stations in each community, and can be booked by members using an online platform called SAUVÉR. Membership costs about \$25 per month; usage sessions cost \$6.40 plus 12 cents per minute. A bonus: members have the opportunity to become familiar with electric vehicles!

DID YOU KNOW

Several Quebec communities use the SAUVÉR platform to share their electric fleet vehicles with citizens after business hours, when the vehicles would normally be parked anyway. Bonus benefits: citizens can become familiar with EVs, and there is virtually no capital cost to the program as it leverages existing assets.



KEYS TO SUCCESS

“Do your homework so you know there is sufficient demand; partner with community groups and non-profits to help spread the word and grow the service; and host public educational events to help build knowledge about the benefits of electric vehicles!”

– **Briana Cowie, Executive Director, Eastern Charlotte Waterways**

5. CARPOOLING

What: any formal or informal arrangement whereby people going in the same direction at the same time choose to travel together in the same vehicle

ADVANTAGES / WHY CARPOOLING CAN BE A GOOD FIT FOR SMALLER MUNICIPALITIES:

- Carpooling offers enormous potential for emission and traffic reduction
- Carpooling is an excellent fit for rural areas, where other forms of public transit are often not feasible
- Implementing carpooling can have little to no cost; it may be as simple as setting up a community Facebook page specifically for that purpose, and then developing a communication plan to promote it. Commercially available online platforms may be more suitable for larger municipalities.

WHERE IT'S WORKING

Bombardier, one of Montreal's largest employers, has been encouraging employee carpooling for more than 15 years. Strategies include providing preferred parking spaces for carpool vehicles and covering costs when a carpooling employee needs to return home early unexpectedly.



BEFORE DECIDING ON WHAT TRANSPORTATION STRATEGY(IES) TO PURSUE, IT'S HELPFUL FOR MUNICIPALITIES TO CONSIDER:

- What are the goals to be achieved – emission and traffic reduction only, or also social benefits like fitness and public mobility?
- Where is most traffic coming from; where is it going; and at what times?
- Are there any key hubs, intersections or destinations (IE hospitals, stores, schools, major employers) that could be integrated into the design of a transit system?
- Are there any infrastructure issues to consider (IE infrastructure currently at capacity limits; infrastructure nearing the end of serviceable life; new infrastructure that could be avoided if transit were offered)?
- Where are the highest population densities, and where is growth and expansion happening?
- Are there any underserved demographic groups (IE seniors, disabled, low income, immigrants/foreign workers) for whom public transit could be a lifeline? If so, where are they located and what are their travel patterns?
- What existing transportation options and services are already available (including in neighbouring communities), and how might they be integrated into a new system?
- What level of public interest and participation might be expected?
- What is the municipality's budgetary capacity, and what federal and provincial programs are available to help?

A FEW FINAL CONSIDERATIONS



According to [Natural Resources Canada](#), the average Canadian driver could improve their fuel efficiency by as much as 25% simply by adopting a few fuel-efficient driving techniques (such as accelerating and braking gently). Municipalities could consider offering training to staff and the public to help everyone save money and reduce emissions.



Many municipalities have adopted zero-idling policies to reduce emissions, with a side benefit of keeping emission reduction top-of-mind for citizens.



The greater the population density of an area, the more likely it is that any of the above options can be implemented successfully. Municipalities can help promote densification through effective planning and progressive by-laws.