

STEERING TOWARD SUSTAINABILITY: NEW GUIDANCE FOR CANADIAN TRANSIT SYSTEMS



As part of its Sustainability Policy, TransLink (left) promotes cycling as an important complement to transit in Metro Vancouver. The new transit facility in Ville de Sorel-Tracy, Quebec (top right) is designed for optimum energy efficiency. Calgary Transit (bottom right) uses wind power to run its CTrain, and is working to reduce vehicle idling across its fleet.

Sustainability makes good economic sense. By using resources carefully, improving energy efficiency and reducing waste, businesses around the world are becoming more competitive and improving profitability.

The transit industry is no different. Transit systems are using sustainability strategies to meet customer expectations, recruit and retain employees, and satisfy community demands for accountability, responsiveness and transparency. They also act as effective role models by using their deep community connections to motivate customers, suppliers and stakeholders to embrace sustainability in their own way. But more fundamentally, agile and forward-thinking transit systems can play a central role in helping communities shape innovative and integrated responses to their emerging challenges.

Public transit is key to meeting Canada's sustainability challenges. Motorized mobility is an essential element of social and economic health, but also consumes valuable resources and negatively affects our health, climate, flora and fauna. Transit systems have an important

role in meeting mobility needs while building a better balance among our environmental, societal and economic needs and constraints.

With funding from Transport Canada, CUTA has developed new guidance to help transit systems work toward sustainability within their organization and operations. *Sustainability Practices for Transit Systems* (available at www.cutaactu.ca) offers a framework of objectives and approaches based on international experience, and profiles the efforts of many Canadian transit systems while recognizing their varying sizes, priorities, capacities and resources.

Sustainability and the transit industry

The new sustainability guidelines support CUTA's other efforts to promote sustainability through local and global initiatives in education and outreach. Notably, in 2009 CUTA released *Transit Vision 2040: Setting a Course for the Future* (available at www.cutaactu.ca), a roadmap for transit's role in making Canadian communities more liveable, economically robust and environmentally healthy.

More recently, CUTA's Sustainability Indicators Initiative developed a framework for sustainability reporting by transit systems. The recommended reporting indicators will make it easier to identify key trends and draw comparisons among CUTA members. They include both required and voluntary indicators, to acknowledge differences in size and capacity among CUTA members and allow smaller systems to build their measurement programs over time. These sustainability reporting indicators have been incorporated into CUTA's new sustainability guidelines (see table beginning on opposite page).

The path toward sustainability

There are many good reasons for transit organizations to embrace sustainability. They might seek public recognition as champions or leaders, and the approval of their shareholders and customers. They may wish to attract and retain high-calibre staff, and improve workplace morale. They might want to better manage risk, and minimize their effects on the environment and their communities. They may be looking to capture efficiencies and improve profitability.

For any or all of these reasons, Canadian transit systems are working to make their operations more sustainable. Typically, they find that cost of progress includes upfront expenditures for new technologies, green building upgrades and other organizational changes. However, those initial costs do bring future financial returns and a host of other benefits – meaning that the true value of sustainability improvements can only be measured with full-cost, life-cycle accounting principles.

The process by which transit systems integrate sustainability principles into their business typically follows five steps:

- **Awareness** of key opportunities and challenges, and of the need to move toward sustainability.
- **Knowledge acquisition** to improve understanding of the organization's local and global impacts, and to identify alternatives to current practice.
- **Engagement** of staff and stakeholders to assess and begin reorienting employee mindsets, customer expectations and organizational perspectives.
- **Empowerment** of staff and stakeholders to translate sustainability principles into operational realities through new organizational structures, responsibilities, procedures and resources.
- **Implementation** of required actions.

This five-step process is neither linear nor finite. The strategic goal of sustainable development requires a cycle of continuous improvement (see figure, below) in which the results of performance measurement are used to shape future plans. Monitoring not only helps organizations understand whether actions are working, but also helps them make adjustments and remain accountable to stakeholders. Reporting on sustainability achievements can improve both public relations and staff satisfaction.

Transit sustainability initiatives elsewhere

International transit organizations recognize the industry's impact on sustainability, and are committed to improving outcomes for their members' communities, customers and employees.

UITP Sustainability Reporting Framework. The International Association of Public Transport (UITP) launched its Charter on Sustainable Development in 2003. Charter signatories are required to report on their environmental, social and economic performance, and their governance structures. In 2009 the UITP began a two-year pilot test of a sustainability reporting framework that charter signatories will use to monitor and measure their performance. CUTA was one of the original signatories to the UITP charter and encourages members to follow in its footsteps, with more expected to do so in the near future.

See www.uitp.org/sustainabledevelopment for more information.

APTA Sustainability Commitment. The American Public Transportation Association (APTA) is calling on its members to commit to a set of sustainability actions, follow a checklist of processes, and meet specific targets for key sustainability criteria. Signatories must meet minimum benchmarks, such as making sustainability a strategic objective, identifying an organizational champion, committing resources, and establishing staff outreach or training programs. They also must measure and communicate the impacts of their actions every year, using indicators such as water and energy consumption, air and water pollution, carbon emissions, waste generation and recycling rates.

See www.apta.com/sustainability for more information.



Delivering change

The experience of Canadian transit systems shows that success with sustainability plans is more likely if a strategic vision is paired with incremental actions and a realistic time frame. Smaller transit systems, in particular, need to balance their objectives with time and resource limitations. Several other success factors have also emerged:

- Making sustainability integral to the organization, rather than an add-on, by improving and expanding existing initiatives and processes.
- Ensuring sustainability is an organization-wide priority with executive support, and creating clear lines of responsibility for implementation, monitoring and reporting.
- Forming partnerships and sharing experiences with others to learn from successful projects and practices.

- Engaging staff and stakeholders to ensure focus and relevance, and to build support and enthusiasm.
- Keeping a realistic perspective and recognizing the need for both long-term commitment and short-term action.
- Measuring progress to ensure continuous improvement in priority areas, with regular and transparent reporting.

Canadian transit systems can use their public visibility, workforce size, customer base and purchasing power to generate awareness and promote sustainability practices among customers, suppliers, stakeholders and peer organizations. They can share results and best practices, serve as sustainability champions and role models, and work with others for long-term change. With CUTA's help, they will remain important leaders in the local, national and global movement towards sustainability.

Sustainability objectives, measures and indicators

The following information is based on CUTA's report *Sustainability Practices for Transit Systems*, available at www.cutaactu.ca. Note that the suggested measures and possible indicators below are not comprehensive. Some indicators are already reported by

CUTA members, some are mandatory or voluntary additions to CUTA member reports, while others are examples from international practice. Readers are directed to the full report for a more complete listing and additional details.

IMPROVING ENVIRONMENTAL PERFORMANCE		
Fossil fuel use and greenhouse gas emissions	Green design and sustainable construction	Water use and water quality
<p>Measures</p> <ul style="list-style-type: none"> • Driver training • Rigorous routine maintenance programs • Fuel-efficient vehicles and facilities • Renewable energy supplies <p>Indicators</p> <ul style="list-style-type: none"> • Energy consumption of revenue vehicles • GHG emissions from transit vehicles • Fuel or energy consumption by non-revenue vehicles • Fuel or energy consumption by transit facilities 	<p>Measures</p> <ul style="list-style-type: none"> • Green design for new facilities <p>Indicators</p> <ul style="list-style-type: none"> • Number and type of measures to reduce facility energy use, water use and resource consumption 	<p>Measures</p> <ul style="list-style-type: none"> • Water conservation for washing and cleanup • Treatment of drainage run-off from parking areas • Wastewater reclamation systems • Rainwater and snowmelt collection • Spill prevention procedures and employee training <p>Indicators</p> <ul style="list-style-type: none"> • Volume of potable water consumption and water pollutant discharge • Number and type of measures to reduce water consumption and improve water quality
<p>Air quality and noise emissions</p> <p>Measures</p> <ul style="list-style-type: none"> • Anti-idling policies • Retrofit of vehicles with filters and particulate traps • Lower sulphur fuel • Cleaner, quieter vehicles • Acoustic design for infrastructure <p>Indicators</p> <ul style="list-style-type: none"> • Criteria air contaminant (CAC) emissions from transit vehicles • Number and type of initiatives to reduce CAC emissions and noise 	<p>Resource use, waste and recycling</p> <p>Measures</p> <ul style="list-style-type: none"> • Reducing waste • Re-using and recycling equipment and products • Separation and recycling of litter • Biodegradable, compostable products with renewable or recycled content <p>Indicators</p> <ul style="list-style-type: none"> • Mass of materials consumed and recycled • Proportion of materials consumed from recycled sources • Proportion of recyclable material in new vehicles • Number and type of initiatives to reduce waste and promote re-use and recycling 	

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ADDRESSING SOCIETAL IMPACTS

ENSURING ECONOMIC SUSTAINABILITY

Transit-land use integration

Measures

- Transit-oriented development guidelines and partnerships with planning authorities and the development community
- Municipal policies to support transit and active modes
- Transportation demand management (TDM) measures

Indicators

- Transit corridor capture area
- Transit corridor attractiveness (population and employment)
- Number and types of initiatives to promote higher density development along major transit corridors

Community health and fitness

Measures

- Direct, legible and safe walking and cycling routes to transit stops
- Ability to take bicycles on transit vehicles
- Secure bike parking at transit stops and stations
- Showers, change rooms and lockers at transit destinations

Indicators

- Proportion of transit vehicles able to carry bicycles
- Bicycle parking capacity at transit stops and stations

Social inclusion and accessibility

Measures

- Driver training to improve service for those with disabilities
- Travel training programs for people with disabilities
- Barrier-free vehicles and infrastructure
- Travel information for people with sensory impairments and non-English/French speakers
- Announcement/display of information in-vehicle and at stops and stations
- Inductive loops for people with hearing impairments at customer contact points
- Tactile and audible signage systems
- Accessible systems for customer feedback

Indicators

- Proportion of fleet that is accessible
- Proportion of transit infrastructure that is disabled accessible
- Initiatives to improve accessibility for the disabled and hearing or visually impaired

Safety and security

Measures

- Driver training and drug/alcohol abuse programs
- Vehicle inspection and preventative maintenance
- Police powers for specially trained staff
- Emergency call facilities at stops and stations
- Video monitoring of vehicles, stops and stations
- Night-time “request stop” programs
- Improved design around stops and stations using Crime Prevention Through Environmental Design principles

Indicators

- Incidence of fatalities, injuries and property damage on transit
- Number of reported security incidents on-board transit vehicles or at transit facilities
- Number and type of initiatives to improve transit safety
- Number and type of initiatives to improve transit security

Customer and community satisfaction

Measures

- Accessible system for comments, queries and complaints
- Reliable response to comments, queries and complaints
- Systems to ensure recording and reporting of issues
- Public and stakeholder engagement for plans and projects

Indicators

- Customer satisfaction levels

Employee welfare

Measures

- Greater workforce diversity and job security
- Employee training
- Employee health and safety policies and measures
- Work-life balance and workplace flexibility

Indicators

- Number of union-affiliated employees

Economic vitality

Measures

- Employee numbers, skill levels and employment status
- Local suppliers and staff recruitment
- Transit planning to support neighbourhood regeneration
- Capturing property value uplift to generate transit funds

Indicators

- Proportion of suppliers that are local
- Proportion of spending on local suppliers

Affordability

Measures

- Affordable transit fares for lower income groups, the elderly, youth and students
- Offering discounted transit passes to those in need

Indicators

- Average fare
- Fares by category
- Availability of discounted fare products

Funding that influences travel choices

Measures

- Work with governments to achieve funding security
- Advocacy for municipal powers to generate transit funds through road user tolls and parking taxes

Indicators

- Proportion of transit operating funding from sources other than fares and property taxes

Sustainable procurement

Measures

- Sustainable procurement policy and staff training
- Purchasing preference for environmentally certified, recyclable, recycled/renewable-content products
- Use of life-cycle costing in purchasing decisions

Indicators

- Number and type of initiatives to align procurement practices with sustainability principles



The Canadian Urban Transit Association (CUTA) is the voice of Canada's public transit industry. For additional information including research reports, industry updates, news bulletins and more, please contact us or visit our website.

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