



# Driving sustainable transit

The Toronto Transit Commission leads the way, developing and implementing a green procurement policy

by Grant Waddell

**P**UBLIC TRANSIT SYSTEMS ARE LARGE CONSUMERS of materials, water, energy and manufactured goods and their purchasing decisions can influence operations in industries such as mining, manufacturing, building and construction and forestry. In 2008, the Toronto Transit Commission (TTC) became the first transit authority in Canada to implement a Green Procurement Policy (GPP). This policy introduced new and complex issues that had not previously been factors in the TTC's purchase decisions (i.e. origin/source of raw materials, manufacturing methods/efficiency, recycled content of material/packaging, method of delivery, etc.).

As Canada's largest public transit system and the third largest in North America, the TTC is uniquely poised to

positively influence public health by altering its procurement process. The GPP serves to better align the TTC's purchasing practices with the City of Toronto's objectives to improve their environmental performance, address climate change, improve local air quality and encourage sustainable development.

### Creating change from within

Implementation of the GPP is occurring in three phases over the span of two-and-a-half years. Activities in each phase build on the initiatives and progress made in the previous phase. The TTC is currently in its second phase, at the end of which green procurement will be effectively "hardwired" into every aspect of the TTC's purchasing activities.



1. Transport Canada. 2008. Government of Canada Makes Significant Investments in Toronto's Public Transit System. Retrieved Jan, 2010 from <http://www.tc.gc.ca/eng/mediaroom/releases-nat-2008-08-h178e-2256.htm>

## Addressing implementation challenges

Organizations integrating “triple bottom line” (environmental, social and economic) considerations into their core business practices, including procurement activities, often experience challenges and the TTC has been no exception. The sheer scope of their effort is further compounded by the size, diversity and complexity of the organization. The TTC has

hundreds of staff involved to varying degrees in the purchase of a wide variety of requirements (i.e. revenue/non-revenue vehicles, buildings and structures, thousands of stock/non-stock parts, etc.). The challenges encountered by the TTC are indeed formidable, but not insurmountable. Some of these challenges along with the TTC’s approach to addressing them are summarized below.

Challenges	TTC’s Response
<p><b>Lack of time, resources and knowledge</b> required for implementing sustainability objectives.</p>	<p><b>MANAGEMENT OVERSIGHT</b> A corporate steering committee led by the TTC’s chief general manager oversees implementation activities. A green procurement co-ordinator is responsible for policy development and implementation, and chairing a working committee of representatives from major purchasing departments.</p> <p><b>CONSULTING THE EXPERTS</b> The TTC has, and continues to, consult with various stakeholders in implementing the GPP including: the Canadian Centre for Pollution Prevention (a NGO), Five Winds International (management consultant specializing in sustainability implementation), Toronto Green Procurement Leadership Council and the City of Toronto.</p> <p><b>IDENTIFY KEY AREAS OF IMPROVEMENT</b> Tools to support the integration of green procurement in the TTC’s major purchasing decisions and activities (i.e. the largest contracts) are being developed and actively applied.</p>
<p><b>Determining what is a “green” product</b> due to limited availability of best practices and environmental performance data</p>	<p><b>TESTING GREENER OPTIONS</b> The TTC has evaluated the environmental and financial costs of several “green” products (i.e. bio-based oils, LED flashlights, reusable plastic pallets, etc.) via pilot projects to better inform purchasing decisions.</p> <p><b>TRACKING PROGRESS</b> The TTC is utilizing a total cost of ownership (TCO) tool to aid staff in understanding, identifying and quantifying all traditional and environmental costs incurred across the entire life cycle of a given product or system in comparison to the existing, conventional system.</p> <p>The TTC is also developing a green procurement tracking system to track and report on key metrics related to both the implementation of green procurement as well as, where possible, the associated reduction in impacts.</p>
<p><b>Effecting institutional change</b> is difficult, since it requires not only changes in how the organization operates but also adjustments in how people think about procurement.</p>	<p><b>ESTABLISHING STANDARDIZED PROCEDURES AND PROCESSES</b> The TTC developed 10 environmental standards on key product categories and materials that will be included in bid documents and communicated both internally and externally on their website. Green procurement guides and checklists were also created to support buyers.</p> <p><b>ENABLING EMPLOYEES</b> Over 200 TTC staff were trained on tools and techniques to facilitate the incorporation of environmental considerations into their purchasing decisions. All new supervisors and staff with procurement and specification responsibilities are also receiving green procurement training.</p>
<p><b>Engaging the supply chain</b> Organizations can experience difficulty achieving their environmental goals if the whole product chain, or system, is not involved. It is challenging to design adequate incentives (internally and externally) for receiving input and feedback on preliminary criteria, and ensuring that requirements are met and data is reliable.</p>	<p><b>COLLABORATION WITH VENDORS</b> The TTC is actively engaging its vendors to communicate its Green Procurement Policy, and to identify opportunities for collaborative work.</p> <p>The TTC met with three of its largest suppliers (i.e. Daimler Buses North America, Bombardier Inc. and Harper Power Products Inc.) to discuss potential innovative projects.</p> <p><b>SHARING THE MESSAGE</b> Several tools have been used in communicating the Green Procurement Policy and implementation activities. Detailed information and updates are provided on the TTC’s internal and external websites and two newsletters are circulated among TTC staff, vendors, other local transit authorities and Toronto City Council members.</p>

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“Integrating social, environmental and total cost of ownership considerations into the procurement processes and activities of any large organization is difficult. This needs to be recognized as a change management challenge that requires not only changes in how the organization operates – policies, management systems, contract language, but also adjustments in how people think about procurement – its importance, its scope, its ability to influence suppliers, reduce costs and lessen impacts outside the gates of the organization.” – Kevin Brady, Five Winds International

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### Sizing-up success

There are already examples of progress in institutionalizing green procurement at the TTC. Many of these early signs of progress include:

- the generation and sharing of ideas by staff on “greener” products or services that may lead to cost savings for the TTC;
- proactive support in the inclusion of other environmental specifications into new contract language by contract administrators; and
- shop-level supervisors are critically thinking and identifying solutions to reduce packaging and waste.

In addition, there are a few early measures of tangible success:


TTC pilot project assessed the replacement of conventional radar-type flashlights with ultra-efficient LED flashlights and determined that this change could eliminate approximately 7,400 kg of waste per year and result in annual cost savings of approximately \$545,000-\$745,000. The results were compelling enough to facilitate a change in policy.

The TTC recently signed a contract with Safety-Kleen Canada to recover and re-refine over 1.8 million litres of used lubricants from its operations and reuse them as engine oil in its fleet. This initiative is projected to reduce annual greenhouse gas emissions of TTC’s fleet by 3,900 tonnes – the equivalent of removing 239 passenger vehicles off the road each year.

In 2008, the Materials and Procurement department decreased its paper consumption by 20 percent and procured copy paper with a higher (100 percent) post consumer recycled content. It was estimated that these actions resulted in reduced greenhouse gas emissions equivalent to removing one passenger car off the road for a year, the preservation of approximately 64 trees, 154,000 litres of water and 2.3 tonnes of solid waste.

### The road ahead

Best practices determined by the TTC from extensive research and pilot projects on products and services related to public transportation can be replicated by other transit authorities worldwide. The life-cycle concepts, employee engagement exercises, contract execution methods and tracking system employed by the TTC can be also applied to other public authorities and private-sector organizations across Canada.

The TTC is seeking to share its experiences and benefit from any progress that other organizations may have made in implementing green purchases, via the Canadian Urban Transit Association (CUTA), as well as collaboration with other transit and government organizations. Ongoing communication with the industry on technological and other developments that enhance environmental considerations is also desired. This combined effort could assist the continued development of standardized environmental specifications for similar products to ensure consistent quality and reduce the cost of goods purchased through standardization across a number of organizations. 

For more information on the TTC’s Green Procurement Policy and Program please contact Grant Waddell TTC’s Green Procurement Coordinator at [grant.waddell@ttc.ca](mailto:grant.waddell@ttc.ca) or Jenn Clipsham project manager of the TTC’s green procurement work at [j.clipsham@fivewinds.com](mailto:j.clipsham@fivewinds.com). Five Winds International is one of the world’s most experienced sustainability management consulting firms and is supporting the TTC in the implementation of its green procurement policy and program.