

Appendix B of Report F-12-13

Green Procurement Initiatives

Automation of Services / Process Change / Electronic Options:

Significant work has been done corporately on process reviews, E-Government and customer service leading to the increase of automation of services, self serve options, and switching from manual to electronic formats. Many of these changes have drastically reduced or eliminated the need to buy paper (which answers one of the fundamental questions in Green Procurement - is there a need to buy the good and/or service that you are looking for?). Reducing the amount of paper that is purchased has positive benefits on the environment, as there are less raw materials used, and less pollution within the supply chain to bring the product to Burlington.

Listed below are some of the Green Procurement initiatives that are taking place and the associated benefits. Since this is the first report on Green Procurement, the information gathered will establish the baseline information. When the Green Procurement policy was introduced, there was a foundation to build upon. The initiatives listed below occurred before and after the introduction of the Green Procurement Policy:

- Electronic Fund Transfer (EFT) – This was implemented by Finance in 2012 and applies to employees as well as contractors. The automation of the payment through EFT reduces paper consumption, staff time, materials, and postage. Approximate savings is \$14,081.21 per year.
- Self serve automation of payment and delivery of bid documents via Biddingo – Phase I. This was implemented by Purchasing Services in December 2010 and resulted in a savings in staff time and paper consumption by 40,000 pages per year.
- Self serve automation of payment and delivery of bid documents – Phase II. In January 2012, the Engineering Department started using Biddingo with similar benefits, as listed above.
- Changed the process for tax bills by not including a return envelope with the tax bill. This works out to be an annual savings of \$1,687.50 per year.
- Reduction in the printing of Focus, the staff newsletter, which has resulted in a cost savings of \$2,000 per year.
- Corporately, staff use email and electronic links to respond to customer service requests (internal and external) instead of mail and photocopies. Staff also guide customers on how to use tools available online, such as accessing by-laws. This has resulted in faster and more efficient customer service and a reduction in the use of paper and cost of materials.
- Changed the process for public meeting notices, so that an envelope is no longer required, which resulted in 70,000 less envelopes being used per year, resulting in a \$1,500 savings per year.
- Provided a self serve online business licence renewals option in some categories

resulting in a more efficient process, better customer service, a cheaper option for the customer as customers no longer have to mail in payments or drive to City Hall and has positive Green Procurement aspects, such as less pollution and less use of paper.

- Improved business process in the Fire Department in regard to the printing requirements for standard operating guidelines and policy review/update from 3,000 pages to 75 pages per year.

Procurement Competitions Where Green Procurement Criteria Was Applied:

The Janitorial Services RFP that was conducted in 2011 allocated 10% of the points towards “progressiveness and demonstrated capability with regard to green cleaning programs”. The vendors did not resist this aspect of the bid and it is apparent that it is becoming normal business practice. However, it became clear that some companies are more advanced than others.

This green cleaning program supported the LEED Gold application for Burlington Performing Arts Centre (BPAC) (Green Building Certification).

New Contracts:

The new contract for multi function printers provide Energy Star certified units and the contract has had the following positive impacts:

- an annual savings of \$8,333 per year based on cost per copy
- the newer units are more energy efficient and use less electricity
- ensured that the majority of the units that were installed had been setup with double sided printing.

Energy Use:

Many energy conservation initiatives have been implemented by City staff (over the years), particularly extensive energy efficient lighting retrofits. This is just a snapshot of recent activity. An update report on the City’s energy management program is scheduled for first quarter 2013.

Lighting:

- 30 year old lighting system was replaced at the Transit garage with fluorescent lights and occupancy sensors.
- Motion sensor lighting installed in the Parking Enforcement office at a cost of \$1,034.52 for four occupancy sensors and consequently lights are only on when someone is in the office.
- Outdoor timers on exterior lights at the Parking Enforcement office at a cost of \$187.39 and consequently, lights are not left on by accident, which

extends the life of the lighting and reduces electricity costs.

- All lighting in Parking Enforcement office has been changed to CFL at cost of \$50.00 and this has reduced energy consumption by 75%

Other:

- Programmable thermostat was installed at the Parking Enforcement office at a cost of \$54.22 and this resulted in less use of electricity.
- The purchase of 16 solar powered pay n' display machines eliminate the need for electricity use.

Equipment:

- End of life HVAC equipment is replaced by energy efficient units where ever possible, such as recent replacements at Aldershot & Mainway.

Building Automation Systems:

- Software introduced into 27 City facilities to monitor and control major energy consuming equipment. The cost of this system was 1.12 million and the payback was 4 years for the City.
- Estimated annual avoidance of 149,000 cubic meters of natural gas, 355,000 kwh of electricity, 360 metric tonnes of greenhouse gas emissions, (which is the equivalent of taking 75 passenger vehicles off the road) and \$80,000 in energy costs.

New Buildings and Major Retrofits:

The newly built Fire Station No. 8 and Burlington Performing Arts Centre and the expansion to the Burlington Transit headquarters building were constructed with energy and water efficiency in mind as well as waste reduction. Some features include:

- A 10kW solar system and a solar wall at the fire station.
- A white roof to reduce the urban heat island effect at all sites.
- Low flow consumption fixtures and sensors at all sites and waterless urinal and dual flush toilets in the Burlington Transit building.
- Native and water efficient landscaping.
- Diversion of construction waste between 75 to 90% from all sites.
- A touchless vehicle washing station in the Burlington Transit building controlling the amount of water and soap used.

Green Spaces

Tree Planting:

In 2012, the City invested \$180,000 on tree planting. Benefits for the environment include moderating local climate by reducing the urban heat island effect caused by pavement and buildings in commercial areas, improving air quality, conserving water, harbouring wildlife, and reducing storm runoff.

Waste Reduction:

- Some departments have started purchasing rechargeable batteries, which is more cost effective.
- In-ground waste & recycling containers in City parks were installed in 2011 at a cost of \$338,800. This introduced recycling options to parks and the increased storage capacity resulting in fewer trips to empty garbage containers. The containers were made from recycled material and can be recycled at their end of life.
- Seniors Centre – Exterior Upgrades
 - Back patio bricks were replaced with a concrete slab for safety purposes.
 - The old bricks were sent to a recycling centre.
- 414 Locust St – Carpet Replacement
 - The new carpet is 100% recycled fiber and at the end of life, the carpet can be recycled.

Construction Material:

Reuse and recycling of asphalt and granular in our roads projects is a good sustainable practice and also saves the City money on material costs.

Computer Equipment:

- ITS Department maximizes the use of computer equipment by repairing and reusing components, where possible.
- Computer laptops and desktops that no longer meet corporate standards are reused by selling them to employees for a reasonable cost, where appropriate.
- End of life equipment is sold to a third party and last year, the City generated revenue of \$1000. In addition, the City received a certificate to assure us that our computer equipment is recycled and does not end up in the landfill.

All equipment is wiped clean to ensure that confidential information is not accidentally released.

Scrap Metal Recycling Bids:

- The City of Burlington has a corporate contract for scrap metal recycling, diverting waste from our landfills. The City received \$9,087.40 (excluding HST) for its scrap metal for 2012.

Wood Chips:

- Wood chips are produced from our tree pruning contract and used as mulch in parks.

Zero Waste Initiatives:

- The cost for all centralized waste stations, including the solar units was \$100,000 and have been implemented in most City facilities.
- The waste stations have a minimum of 50% recycled content.
- Waste from City Hall going to the landfill has been reduced at least by 50%.

Hidden Valley Pavilion:

- The tender specifications for the demolition required that the waste material was reused or recycled where feasible. (See Appendix C for additional details)
- The cost for the project was \$23,324 and 75-80% of the material was reused or recycled.
- Approximately 85 per cent of the furnishings in the pavilion were acquired by Habitat for Humanity and a used office furniture business for refurbishing.
- The distance to transfer fill to the site was minimized.
- Almost all debris material was removed and sorted for materials that could be reused or recycled.
- The metal roof was reused by a third party.
- Large timbers were retained for reuse.
- 100 per cent of the sub-grade granular was reused.
- 100 per cent of the asphalt and concrete was recycled.

Sustainable Transportation Practices:

Vehicles

- 10 demountable salt spreaders were purchased in 2010 at approximately \$70,000 per unit which improved the efficiencies in salt spreading, which has negative environmental effects.
- The City first used a hybrid vehicle in 2002. The City now has 21 hybrid passenger vehicles and one hybrid aerial truck.
- Biodiesel has been used in City off-road vehicles since 2003 and in licensed vehicles since 2004 between the months of May to September, the traditional smog season.
- In 2012, the City purchased a hybrid aerial truck and the City opted to specify that a demo unit was acceptable. This resulted in a cost avoidance of approximately \$50,000 and demonstrated an imaginative procurement method, which saved the City money.

Transit Inventory:

- The City is in the first year of a five year contract with a company that has a centralized parts warehouse and delivers parts for 12 transit agencies, with Burlington Transit being 1 of the 12. With this centralized approach, it should minimize the administrative work on City staff, as they have one central contact for all their inventory requirements. This should also minimize the

number of delivery trucks that come to Burlington, as only one delivery truck will be coming to Burlington 2-3 times a week, as opposed to daily deliveries from multiple vendors. At this time, it is too early to project savings, but there are efficiencies with this arrangement and the reduction of pollution.

Maintenance Programs:

Regular maintenance programs help prolong the life of our assets, which reduces our need to buy more frequently. This is very important, as less goods and services are being bought, which have a positive impact on the environment and the budget.

A good example of a maintenance program that we are currently using is *Asphalt Overlay and Pavement Rehabilitation*. This program rehabilitates our roadways and prolongs road life, thus reducing construction materials required. Recycled material used in paving reduces the amount of virgin aggregate used.

Additionally the material that is removed from the roads (milling) is recycled.

Paper , Printing & Envelopes:

- The printing of City Talk, the paper that was used was FSC certified and the printer was FSC certified.
- Paper contract – 30% recycled stock which is the current industry standard.
- Some staff use 100% recycled stock for environmentally related events.
- Set standard design sizes for Creative Services help maximize sheet usage and reduce waste.
- All printing that is sent offsite is produced on FSC stock and approximately 70% of contract print jobs are FSC certified.
- All printer toners are recycled.
- All City paper currently used is SFI certified.
- All City envelopes are FSC certified.