

Recycling Council of Alberta  
Green Procurement Research

**Report**

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**Submitted by:**



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## 1.0 Introduction

Green procurement involves changing purchasing behaviors to favor more environmentally sound products and services (CSA, 1995).

According to a report entitled “Green Procurement” by the consultancy group *Five Winds International* implementing green procurement initiatives can involve four main approaches within an organization including: procuring environmentally labeled products or services; developing in-house green procurement criteria; third party evaluations of products and services; and supply chain initiatives which include all of the above methods and whose main goal is to “green” the supply chain (*Five Winds International, 2004*).

A general overview of the types of products and services which could be included in a green procurement program are included in Table 1.

**Table 1 Examples of Green Products for Different Working Environments**

Work Environment	Product Category
Construction	<ul style="list-style-type: none"> <li>▪ Green design</li> <li>▪ Green building materials</li> </ul>
Building Management	<ul style="list-style-type: none"> <li>▪ Green power</li> <li>▪ Energy efficient lighting</li> <li>▪ Biodegradable cleaners</li> <li>▪ Recycled paper towels</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>▪ Recycled plastic film</li> <li>▪ Compost</li> </ul>
Factory	<ul style="list-style-type: none"> <li>▪ Green fuels or power</li> <li>▪ Green lubricants</li> <li>▪ Green chemicals</li> <li>▪ Recycled raw products</li> </ul>
Retail	<ul style="list-style-type: none"> <li>▪ Recycled content bags</li> <li>▪ Recycled containers (food and non-food)</li> </ul>
Office/ School	<ul style="list-style-type: none"> <li>• Office Supplies               <ul style="list-style-type: none"> <li>○ Paper/envelopes</li> <li>○ Inkjet cartridge/toner cartridge</li> <li>○ Double sided photocopier</li> </ul> </li> <li>▪ Furniture</li> </ul>

There are a number of benefits and obstacles to implementing a green procurement policy and these are summarized in Table 2.

**Table 2 Benefits and Obstacles to Green Procurement**

<b>Benefits</b>	<b>Obstacles</b>
Ethical environmental responsibility (CSA, 1995)	Cost (IISD, 2006)
Easier compliance with environmental regulations, and professional standards (Five Winds International, 2004).	Lack of commitment from management and corporation (IISD, 2006)
Compliance with Industry guiding principles and codes of practice (CSA, 1995).	Lack of knowledge and education (IISD, 2006)
Improved image (Five Winds International, 2004).	Unclear criteria from purchaser and specifications (IISD, 2006)
Improved employee health (Five Winds International, 2004).	Unclear specifications from vendor (IISD, 2006)
Adhering to customer and consumer preferences (CSA, 1995)	Overcoming purchasing habits; Decentralized purchasing (IISD, 2006)
Conserving energy, water, fuel and other resources (Five Winds International, 2004).	Availability of green products and services (IISD, 2006)
Cost avoidance through the minimization of waste management fees, hazardous management spending (Five Winds International, 2004).	Inaccurate perceptions (CSA, 1995)

**The purpose of this report is to provide a situation analysis on green procurement in Alberta and Canada as well as developing a road-map for those considering setting up their own program.**

This report includes the following information:

- Research of green procurement programs including innovative examples of successful green procurement
- Developing and implementing a green procurement policy
- Resources to assist in developing a green procurement policy.
- Locating green products

Information was gathered through a variety of means including internet research and a survey. The gathered information is summarized in this report. This report functions as a starting point and the reader is encouraged to undertake further research. An extensive reference section, organized by report section, can be found in Section 7.

## 2.0 Research of Green Procurement Programs

Research into green procurement programs was undertaken via internet research and a telephone/email survey. This included obtaining definitions, policy statements and information about the workings of various green procurement programs.

### 2.1 Definitions of Green Procurement

Table 3 presents various examples “Green Procurement” definitions that can be used within a policy. A generic definition could read:

“The purchase of goods and services that have a lower negative impact on the environment and human health as compared to competing and currently used products.”

### 2.2 Overview of Green Procurement Policy Statements

Table 4 presents various examples “Green Procurement” policy statements. A generic policy statement could read:

“The municipality of **xxxx** commits to the preferred purchasing of green goods and services, where the environmental benefit is clear and measurable and where the cost, although possibly higher than convention goods and services, is reasonable”.

## 2.3 Alberta and Canadian Green Procurement Policies

### 2.3.1 Government of Alberta

A Pollution Prevention & Resource Conservation Policy is being developed for the Government of Alberta (GOA) that will include measures to ensure pollution prevention (reduction of emissions, effluents, and solid waste), conservation of resources, and green procurement (*Alberta Environment, 2006*). With over \$2.5 billion spent by the GOA on supplies and services (2003), there is a great potential to improve the government’s environmental impact with these measures.

Other strides that Ministries within the Government of Alberta have taken to improve green procurement include:

- Adoption of LEED Silver as a green standard for the construction of new buildings (Ministry of Infrastructure and Transportation. Established in 2006). )
- Adoption of BOMA Go Green as a standard to green the operations of government owned buildings. Five buildings are already certified. The overall goal is to have 79 buildings certified by 2009, which equates to 100% of government buildings with public access. (Ministry of Infrastructure and Transportation. Established in 2006.)
- Purchase of 90% green power for government owned buildings (coming from renewable and alternative sources –i.e. wind power from Pincher Creek and biomass from Grande Prairie). (Ministry of Infrastructure and Transportation. Ongoing since Jan 1, 2005)
- Development of an EcoLogo Certified office area in the south side, main floor of Oxbridge Place, Edmonton, Alberta (Ministry of Environment. Official designation December 18, 2001).
- Development of green government-wide standing offers for the purchase of (Ministry of Service Alberta):
  - 30% recycled content paper (on-going since 1991)
  - recycled toner cartridges in addition to new cartridges.

- recycled content garbage bags
- 10% recycled content in paper towel.



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**Table 3 Examples of Green Procurement Definitions**

<b>Organization</b>	<b>Definition of Green Procurement</b>
<b>CANADIAN FEDERAL GOVERNMENT</b>	
Public Works and Government Services Canada (Policy on Green Procurement)	<i>“Environmentally preferable goods and services are those that have a lesser or reduced impact on the environment over the life cycle of the good or service, when compared with competing goods or services serving the same purpose. Environmental performance considerations include, among other things: the reduction of greenhouse gas emissions and air contaminants; improved energy and water efficiency; reduced waste and support reuse and recycling; the use of renewable resources; reduced hazardous waste; and reduced toxic and hazardous substances. “</i>
<b>ALBERTA ENVIRONMENT</b>	
Alberta Environment	<i>Environmentally preferred products and services means those products and services that specifically minimize negative impacts on human health and the environment. Environmentally preferred products and services are identified as those that are certified by the Government of Canada’s Environmental Choice Program (“Eco-Logo”), Energy Star, and Green Leaf Eco-Rating Program for Hotels programs, or other generally accepted “green rating” programs.</i>
<b>PROVINCES, CITIES AND TOWNS</b>	
Government of Manitoba	<i>Environmentally Preferable Products</i>  <i>Means goods and materials that have a less adverse impact on human health and the environment when compared with competing goods and materials. This comparison shall consider raw materials acquisition, production, manufacturing, packaging, distribution, re-use, operation, maintenance, and waste management of the good or material.”</i>
City of Halifax	<i>“Guiding Principles (h) to Procure necessary goods and services with due regard to the preservation of the natural environment and to encourage suppliers to supply goods with recycled materials where practical.”</i>
City of Richmond	<i>“that are more responsible to the environment in the way they are made, used, transported, stored and packaged and disposed of”.</i>
City of Spruce Grove	<i>“<u>Environmental Sustainability</u> The City of Spruce Grove will ensure that the short and long term environmental costs are factored into all purchasing decisions. Completing a life cycle analysis will outline the short and long term costs of a product or service. A comprehensive examination of a product’s environmental and economic effects throughout its lifetime include: new material extraction, transportation, manufacturing, use, and disposal.</i>
City of Toronto	<i>“That in order to increase the development and awareness of environmentally sound purchasing, acquisitions of goods and services will ensure that wherever possible specifications are amended to provide for the expanded use of environmentally preferred products such as: durable products, reusable products, energy efficient products, low pollution products, products (including those used in services) that contain the maximum level of post-consumer waste and/or recyclable content, and products that provide minimal impact to the environment.</i>  <i>An environmentally preferred product is one that is less harmful to</i>

**Table 3 Examples of Green Procurement Definitions**

Organization	Definition of Green Procurement
	<p><i>the environment than the next best alternative having characteristics including, but not limited to the following:</i></p> <ol style="list-style-type: none"> <li>1. <i>Reduce waste and make efficient use of resources: an Environmentally Preferred Product (EPP) would be a product that is more energy, fuel, or water efficient, or that uses less paper, ink, or other resources. For example, energy efficient lighting, and photocopiers capable of double-sided photocopying.</i></li> <li>2. <i>Are reusable or contain reusable parts: these are products such as rechargeable batteries, reusable building partitions, and laser printers with refillable toner cartridges.</i></li> <li>3. <i>Are recyclable: a product will be considered to be an EPP if local facilities exist capable of recycling the product at the end of its useful life.</i></li> <li>4. <i>Contain recycled materials: an EPP contains post-consumer recycled content. An example is paper products made from recycled post-consumer fibre.</i></li> <li>5. <i>Produce fewer polluting by-products and/or safety hazards during manufacture, use or disposal: an EPP product would be a non-hazardous product that replaces a hazardous product.</i></li> <li>6. <i>Have a long service-life and/or can be economically and effectively repaired or upgraded."</i></li> </ol>
Town of Banff	<p><i>"Green Procurement means purchasing products or services, which minimize, or provide favourable environmental impacts. Green Procurement involves considering the costs and environmental consequences of a product in all stages of its life cycle."</i></p>
<b>UNITED STATES</b>	
Alameda County, California	<p><i>"Products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable."</i></p>
Boulder, Colorado	<p><i>" Material or product which is durable, repairable, reusable, or recyclable; has a minimum of packaging, toxic content or chemical hazard potential; is resource or energy efficient in any or all phases of its manufacture, use and disposal; or in its use or disposal minimizes or eliminates the City's potential for liability"</i></p>
Massachusetts	<p><i>"Commodities or services that are less detrimental to the environment and human health than competing Commodities or Services serving the same purpose. Includes Commodities or Services that minimize waste, use recycled materials, conserve energy or water, or reduce the consumption or disposal of toxic materials."</i></p>



**Table 4. Examples of Green Procurement Policy Statements**

Organization	Green Procurement Policy Statements
<b>RECYCLING COUNCIL OF ALBERTA (RCA)</b>	
RCA	<p><i>"The Recycling Council of Alberta (RCA) recognizes the importance of ensuring that the principles of sustainable development and environmental sensitivity form a key component of all procurement decisions and as such has established and implemented the following procurement policy:</i></p> <p><i>The RCA will seek out and give priority to member based suppliers of office and other supplies as required which:</i></p> <ul style="list-style-type: none"> <li><i>- firstly, achieve a reduction in the product or materials usage or in the waste generated;</i></li> <li><i>- secondly, allow for re-use of the original product or material; and,</i></li> <li><i>- thirdly, contain as much post-consumer recycled materials as possible</i></li> </ul> <p><i>providing that the products meet the Recycling Council's needs for performance, availability and price."</i></p>
<b>ALBERTA ENVIRONMENT</b>	
Alberta Environment	<p><i>"The Ministry of Alberta Environment commits to the procurement of environmentally preferred products and services, to the greatest extent practical. That is, where environmentally preferred products and services are available at a reasonable cost, and available within the options under current Ministry or Government of Alberta standing offers."</i></p>
<b>TERRITORIES, CITIES, TOWNS</b>	
Government of the North West Territories	<p><i>"General</i></p> <ul style="list-style-type: none"> <li><i>• The Government of the Northwest Territories (GNWT) will give preference where economically feasible, to environmentally responsible products and services that are compatible with an individual department's requirements.</i></li> <li><i>• Purchasers should consider use of product and services on a trial basis until performance and technical requirement have been proven.</i></li> </ul> <p><i>Contracting</i></p> <ul style="list-style-type: none"> <li><i>• The GNWT will ensure environmentally responsible products and services are specified, whenever possible, in maintenance and construction projects.</i></li> </ul> <p><i>Applicability</i></p> <ul style="list-style-type: none"> <li><i>• This guide applies to all Territorial Government departments, agencies and boards.</i></li> </ul> <p><i>The use of environmentally responsible products and services will be promoted throughout the Government."</i></p>

**Table 4. Examples of Green Procurement Policy Statements**

<b>Organization</b>	<b>Green Procurement Policy Statements</b>
City of Spruce Grove	<p><i>"A policy to ensure that the goods and services necessary for the provision of municipal services are obtained in an effective, expedient, and environmentally friendly manner at the best overall value."</i></p>
Town of Banff	<p><i>4.0 Responsibilities</i></p> <ul style="list-style-type: none"> <li><i>a) Considering the environment in all purchasing decisions and selecting environmentally beneficial Goods and Services where the additional cost is not prohibitive.</i></li> <li><i>b) Forwarding a copy of the Contractor's Environmental Responsibilities checklist and form to the Environmental Manager.</i></li> </ul> <p><i>10. Procurement Preferences</i></p> <p><i>The Town will consider Green Procurement when making purchasing decisions when Goods and Services are available at competitive prices and the environmental benefits provided do not affect the intended end use.</i></p>
<b>PRIVATE SECTOR</b>	
Hewlett Packard (HP)	<p><i>"Environmentally, HP is committed to providing products and services that are environmentally sound throughout their life cycles, and to conducting our operations in an environmentally responsible way. "</i></p>
Home Depot Wood Purchasing Policy	<ol style="list-style-type: none"> <li><i>1. The Home Depot will give preference to the purchase of wood and wood products originating from certified, well managed forests whenever feasible.</i></li> <li><i>2. The Home Depot will eliminate the purchase of wood and wood products from endangered regions around the world.</i></li> <li><i>3. The Home Depot will practice and promote the efficient and responsible use of wood and wood products.</i></li> <li><i>4. The Home Depot will promote and support the development and use of alternative environmental products.</i></li> <li><i>5. The Home Depot expects its vendors and their suppliers of wood and wood products to maintain compliance with laws and regulations pertaining to their operations and the products they manufacture.</i></li> </ol>

### 2.3.2 Alberta Environment

Alberta Environment has a green procurement policy that directs department purchasers to buy green products from existing Government of Alberta standing offers. Alberta Environment has also developed green procurement guidelines for producing internal and external publications and for procuring major electronic equipment and infrastructure.

### 2.3.3 Federal Government

A report issued by the Auditor General in 2005 indicated that improvements with respect to the Federal Government's green procurement are required. The Federal Government is the largest purchaser of goods and services and therefore by purchasing green, significant benefits may be seen (OAG, 2005).

Public Works and Government Services Canada (PWGSC) has the greatest procurement responsibilities within the government. On April 1, 2006, the Treasury Board Policy on Green Procurement was put into effect. This Policy and its implementation, jointly managed by PWGSC, Natural Resources Canada and Environment Canada, applies to the vast majority of departments.

As outlined in the policy the expected outcomes include (PWGSC, 2006):

- Reduce greenhouse gas emissions and air contaminants;
- Improve energy and water efficiency;
- Reduce ozone depleting substances;
- Reduce waste and supporting reuse and recycling;
- Reduce hazardous waste;
- Reduce toxic and hazardous chemicals and substances.
- Leverage the purchasing power of the federal government to achieve economies of scale in the acquisition of environmentally preferable goods and services, thereby reducing the cost for government and strengthening greener markets and industries;
- Result in more environmentally responsible planning, acquisition, use and disposal practices in the federal government; and
- Support a healthier working environment for employees and for citizens in general through the purchase of environmentally preferable goods and services.

A question and answer page on the PWGSC website also provides some information on the government's green procurement policy. The website address is located in the reference section, Section 7.

### 2.3.4 Alberta and Canadian Municipalities Survey

To get a sense of the status of green procurement programs and their implementation within Alberta and Canada the project team contacted all major Alberta municipalities and other Canadian municipalities that were thought to have or be developing a green procurement program. To facilitate obtaining Alberta-specific information the RCA sent out an "email alert" alerting members of this study. This was supported with an internet search. A total of 23 Alberta and Canadian Municipalities were contacted.

In Alberta the following municipalities were contacted, Cities of: Airdrie, Calgary, Camrose, Edmonton, Grande Prairie, Lethbridge, Medicine Hat, Red Deer, Spruce Grove, and St. Albert. Towns of: Banff, Canmore, Cochrane, Drumheller, Hinton, Jasper, and the Regional Municipality of Wood Buffalo

The following Canadian municipalities were contacted: Cities of: Halifax, Ottawa, Richmond, Toronto, Vancouver, and Windsor.

A standardized list of questions was developed for municipalities. Questions and information from the municipalities that responded are summarized in Tables A1 and A2 in Appendix 1. Not all municipalities responded to the survey. There was not as much information available as anticipated.

In general the following information was learned:

- Most responding Alberta Municipalities contacted have informal green procurement policies or are or will be developing them.
- There were generally no formalized tracking mechanisms to gauge the success of implemented green procurement policies.
- Challenges identified include:
  - Difficulty on imposing environmental values such as recycling to other countries that produce their products, but do not have strong environmental policies
  - Difficulties associated with decentralized purchasing,
  - Finding legitimate green vendors and vendors knowledgeable in the environmental issues surrounding their products and services
  - Becoming knowledgeable on available green products and services
  - Balancing the potential higher costs of green products and services
  - Resistance to change.

Examples of green tenders are included in Appendix 2. Municipal contact information is included in Appendix 3.

### **2.3.5 Local Private Sector Green Procurement Survey**

A general search of Private companies was conducted. This search was conducted by contacting and surveying most of the companies however some of the information was generated through a literature review.

The research completed has resulted in some information about private companies with local operations practicing green procurement. Section 2.4 “Innovative Examples of Successful Green Procurement” describes the green procurement policies of companies with local operations such as Mountain Equipment Co-op, IKEA and Home Depot.

## **2.4 Innovative Examples of Successful Green Procurement**

The following section provides some examples of initiatives that the public and private sector have taken to promote green procurement. References for each are found in Section 7. Contact information where available is found in Appendix 3.

### **2.4.1 Mountain Equipment Co-op (MEC)**

#### Green Products

In 2006-2007 MEC will develop a strategy to reduce the negative impacts of their products. To date, they have created a Materials Development and Sourcing Manager position whose responsibilities include: researching, identifying and designing materials with reduced negative environmental impact (MEC, 2005). Also in 2005, they established a baseline

establishing current quantities of organic cotton and recycled polyester in their products. This baseline is a good first step to track future product improvements (MEC, 2005).

### Green Buildings

In 1997, consistent with MEC's commitment to "respect and protect the natural environment" MEC's Board approved building buildings that include "environmental and social considerations" in their design. The buildings incorporate features such as: using technologies to reduce energy, Ozone Depleting Substances (ODS) free heating and cooling systems, minimize interior finishings to avoid unnecessary use of materials (*Five Winds International, 2004*).

At the conceptual development stage MEC brings together all the expertise from engineers to landscape architects, to HVAC system experts. This process is known as the Integrated Design Process (IDP). The IDP has resulted in some innovative design ideas. For instance the building in Montreal has a rain water collection system where an underground cistern is used to supply toilets, and provide irrigation for landscaping. This in turn reduces the demand on fresh water. The IDP process has also resulted in MEC's Ottawa and Winnipeg stores to be the first retail buildings to comply with the Natural Resources Canada C-2000 Green Building Standard (*Five Winds International, 2004*).

MEC measures the benefits of green buildings in comparison to traditional buildings by looking at a number of parameters including energy efficiency, landfill diversion and CO<sub>2</sub> emissions (*Five Winds International, 2004*)

Benefits from the green building approach include a) lower operating costs (i.e. Montreal store saves \$30,000 to \$40,000 per year due to energy efficiency), b) enhanced public image and reputation, c) employees are proud of where they work, d) Improved shopping environment, and e) Cities are accepting of MEC stores (*Five Winds International, 2004*)

Challenges include: a) higher cost of buildings (up to 50% more than conventional buildings), b) limitations of technology, c) limited by what is acceptable by employees and customers (for example customers expect a certain level of lighting in a retail store) (*Five Winds International, 2004*).

Factors identified by MEC as contributing to the success of the green building program include (*Five Winds International, 2004*):

- Employees and Managers had consistent values with MEC's social and environmental values therefore there was little behavioral change required.
- Support from MEC's Board.
- Internal Champion promoting and facilitating the program.
- Financial assistance from C-2000 program.
- MEC shared knowledge and expertise with various local organization (local to where the building was built) which furthered their success.

### **2.4.2 Hewlett Packard (HP)**

HP strives to combine business with Global Citizenship strategies. Global citizenship focuses on three areas. These are: environmental sustainability, privacy and social investment. Each area is promoted through its own set of objectives and programs (*HP, 2006*).

There are several ways that HP promotes its commitment to the environment. These include (HP,2006):

- 1) HP designs products to be environmentally sound throughout their lifecycle.
- 2) HP offers recycling programs/options for its customers.
- 3) Packaging is designed to minimize environmental impacts.

HP eliminates materials of concern from their products by working with the designers and suppliers through their General Specification for the Environment (GSE). Over the years, HP has also reduced the amount of materials used in their products. For instance products have shifted to notebooks rather than PCs which typically uses less material (about 80% less).

In 2005 HP developed a database for environmental information on their products. This is called the Product Environmental Tracking database.

HP controls the products it purchases through its Supply Chain Social and Environmental Responsibility (SER) program. With \$53 billion being spent on supplies in 2005, HP can have a significant influence on greening the supply chain.

Successes include, HP's hardware recycling program. HP has been recycling computer hardware since 1987 (HP, 2006). Since then, HP's recycling program has recycled 750 million pounds of computing hardware and printing supplies (HP, 2006). *And HP is well on its way towards its goal of 1 billion lbs by 2007!*

The HP Environmental Health and Safety Policy (see Table 3 for definition) is managed through an Environmental Health and safety management system with internal audits, external audits and employee awareness and training.

Challenges include: measuring performance (i.e. defining what it means to recycle), demonstrating business value (many green products are more expensive), and tracking and becoming informed on emerging legislation related to global citizenship issues (HP, 2006).

### 2.4.3 IKEA

IKEA defines one of its goals as integrating environmental and social considerations in its daily business.

In terms of the environment, IKEA looks to include environmental considerations in the products it makes and the supplies it purchases.

Impacts on the environment and health of the user are considered in the products IKEA makes and includes: producing furnishings from recycled products, such as combining recyclable polypropylene and wood fibres from a sawmill to make chairs. IKEA uses smart packaging to optimize the amount of products that can be transported thus minimizing emissions. IKEA innovatively uses PET plastic (plastic found in drink containers), pasteboard, milk cartons to make furniture. Other initiatives implemented have resulted in the following as of 2005: the use of nickel free stainless steel was increased in products, 80% of children's products made without solvent based lacquers, Lyocell (a cellulocis fibre made from trees) is used in increasing numbers in quilts and pillows.

IKEA influences the supply chain by requiring suppliers to follow a code of conduct known as the IKEA Way on Purchasing Home Furnishing Products IWAY. This code of conduct was

established in 2000 where suppliers are given a number of social and environmental requirements. For instance suppliers must: work to reduce waste and emissions to air, ground and water, handle chemicals in an environmentally safe manner, use wood from known areas and from sources that are responsibly managed. IKEA manages supplier compliance through audits, although one of the challenges is to manage sub-contractors. Currently only suppliers are audited.

In order to build long term business relationships, IKEA works with its suppliers to help them achieve compliance in instances of non compliance. If however the supplier repeatedly does not comply and has no interest in compliance then IKEA terminates its business relationship with that supplier.

### 2.4.3 InterfaceFLOR Commercial

InterfaceFlor Commercial is an international flooring company practicing green procurement since 1998. InterfaceFlor conducts life cycle analysis on supplies, purchases supplies that highly perform, uses reduced amount of material, and buys supplies that are environmentally responsible (*Five Winds International, 2002*).

The Purchasing Policy has been designed to promote choosing products that are greener in the manufacturing, use and disposal stages (through their life cycle), and to encourage the market to produce products that are sustainable, have supporting data for evaluation and have credible third party certification.

InterfaceFlor works with suppliers to come up with innovative solutions. For example, the InterfaceFlor Technology Design Group worked with suppliers to remove smoke and flame retarding substances listed on the National Pollutant Release Inventory (NPRI) in their flooring systems. The suppliers came up with a new resin that used less energy, improved performance and addressed the flame retardant issue (*Five Winds International, 2002*).

In another example, InterfaceFlor updated its HVAC system by working its supplier to come up with an HVAC system using CFC-free equipment when no such technology existed.

One main challenge encountered by InterfaceFlor is that there is a lack in data on the environmental performance of the supplies it purchases. Another challenge faced with the manufacturing operation, is acquiring quality raw materials that reduce waste, due to limited choices.

Financial, benefits include cost savings from reducing the use of NPRI substances (estimated at \$1,326,000 per year). InterfaceFlor obtained positive press during a CNN, CBC, the Discovery Channel press. A cost savings in advertising was realized (as it costs \$100,000 for 30 seconds of advertising time) (*Five Winds International, 2002*).

Strategically, InterfaceFLOR Commercial, Canada has gained considerable benefit through its sustainability program, of which purchasing is one aspect. They have enjoyed double digit growth in sales, their sustainability program is designed to improve financial, business, environmental and social impacts simultaneously.

#### 2.4.5 Home Depot

The home depot has taken the following environmental initiatives:

**Wood Purchasing Policy** began in 1999 with a two year process of tracing the origin of wood products. Through this research, the Home depot knows the origin of each and every wood product on their shelves (*Home Depot, 2005*). The wood purchasing policy (see Section 2.2) has resulted in the following (*Home Depot, 2005*):

- reducing imports from Indonesia by 70%,
- purchase one tenth of one percent from around the Brazilian Amazon Basin,
- increasing the sale of wood products certified by the Forest Stewardship Council from \$16 million in 1999 to \$350 million presently

**Energy Efficiency** specifications were examined and introduced in 2003. Specifications were developed to reduce energy costs, and minimize greenhouse gases. An average of 34% has been achieved since 2003. Changes made in buildings include (*Home Depot, 2005*):

- Reflective roof membranes
- Rooflines that are 4 feet lower than the previous design
- T-5 lighting
- Entrance vestibule

The Home Depot has also partnered with the Environmental Protection Agency (EPA) and the Department of Energy (DOE) to promote ENERGY STAR products. The Home Depot provides education to its customers on ENERGY STAR and the Home Depot website allows customers to purchase ENERGY STAR products at [www.homedepot.com/energy](http://www.homedepot.com/energy). In 2004 there has been an increase of 35% in ENERGY STAR products.

**SmartWay<sup>SM</sup> Transport Partnership** is a voluntary program between the U.S EPA and the freight industry and its goal is to increase energy efficiency and minimize greenhouse gas pollution. The Home Depot's has played a leadership role in the development of the SmartWay program and has now included an environmental clause in transportation related contracts and RFPs. As a result by 2004, 75% of transport was spent on SmartWay certified partners (*Home Depot, 2004*).

#### 2.4.6 US EPA Environmentally Preferable Purchasing

Since 1998, in the United States, all federal procurement officials are required to give preference to environmentally preferable products and services by the Executive Order 13101 and the Federal Acquisition Regulation (FAR). The Environmentally Preferable Purchasing (EPP) is a federal-wide program that encourages and assists Executive agencies in the purchasing of environmentally preferable products and services (*US EPA, 2006*).

The impacts of this program can be widespread as the US Federal government is the single largest consumer in the United States and spends over \$200 billion annually (*US EPA, 2006*).

The EPP Program provides information on environmentally preferred products to federal government purchasers however this information can also be used by others.

This program is innovative because it provides a tool for purchasers to find green products and services. This tool is called the *Database of Environmental Information for Products and*



*Services.* The database contains general product categories with vendor lists which provide green products (under each product category). The program certifying the green product (i.e. EcoLogo etc.) is also listed.

The US EPA has also developed a new document called "*Promoting Green Purchasing: Tools and Resources to Quantify the Benefits of Environmentally Preferable Purchasing.*" This document summarizes tools which help quantify the benefits of purchasing green.

### **3.0 Development and Implementation of a Green Procurement Policy**

#### **3.1 Introduction**

For those wanting to develop a green procurement program there are a few key steps that should be followed. As with any initiative careful planning that sets realistic and measurable goals is very important. Successful green procurement policies should include all or at least some of the following characteristics:

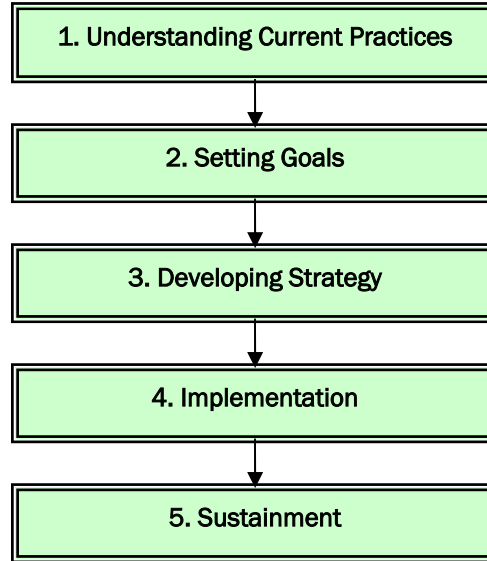
- Develop a policy statement with specific program goals (*NAGPI, 2004*).
- Obtain “buy in” from upper management. This can assist with issues associated with decentralized purchasing.
- Put someone in charge and accountable to facilitate, monitor, report success and lesson’s learned (*Government Procurement, 2005*).
- Develop short term and long term goals (*NAGPI, 2004*).
- Develop measurable goals (*NAGPI,2004*)
- Start with achievable easy goals (*Government Procurement, 2005*).
- Incorporate lifecycle approach (planning, acquisition, maintenance and operations, and disposal) (*NAGPI, 2004I*)
- Look for items that save money (*Government Procurement, 2005*).
- Monitor performance (*NAGPI, 2004*)

#### **3.2 Steps to Develop a Green Procurement Policy**

The following section gives an overview of the steps involved in developing and implementing a green procurement policy as outlined by the Canadian Standards Association (CSA) document *Environmentally Responsible Procurement "Green Procurement" -CSA Z766-95* (CSA,1995). Another useful document outlining the green purchasing policy components has been developed by the North American Green Purchasing Initiative and is discussed in Section 4.0.

The following flow chart and some of the following information has been adapted from the CSA Z766-95 Standard.

### Green Procurement Developmental Steps



#### **3.2.1. Understanding Current Practices**

In order to ensure the green procurement policy fits with the overall structure of the organization it is important to gain an understanding of the organization's current practices. Current practices should be evaluated with respect to: a) internal and external forces which impact purchasing practices, b) organization's eagerness to overcome purchasing challenges, c) the status of the organization with respect to regulatory requirements and public perceptions, d) customer and shareholder concerns, e) level of employee compliance and initiatives. Checklists are provided in the CSA, 1995 standard which may assist in understanding the current practices.

#### **3.2.2. Setting Goals**

The CSA, 1995 standard identifies three main steps in setting goals. These are:

- Setting broad policy objectives
- Setting priorities
- Establishing specific targets

Prior to setting goals the following should be considered: a) identify corporate goals to be gained, b) identify rationale for setting priorities, c) develop a method to incorporate green purchasing initiatives within general procurement practices, d) identify a benchmark for assessing progress.

When setting priorities the following should be considered: a) identify environmental improvements and economic benefits, b) identify and measure associated costs, c) assess importance of improvements, d) assess changes required to incorporate green procurement goals.

In establishing specific targets it is important to clearly identify the targets and to assign individuals with the specific tasks and to make them accountable.

### **3.3.3. Developing Strategy**

When developing a policy it is beneficial to begin with “short term” operational changes which are easily implemented and bring about positive and measurable change in a short period of time. For example switching to the use of recycled office paper is one change which does not require a large amount of effort from staff or management.

Short term changes should lead to longer term initiatives which culturally change purchasing habits. The CSA Standard indicates that longer term changes can occur through a) obtaining senior management support, b) formalizing the green procurement policy by making it written, c) exchanging ideas with stakeholders, d) provide green procurement policy to suppliers, e) ensure suppliers’ products and services conform to the green procurement policy by conducting periodic audits.

An integral part of developing a strategy is developing criteria to be used in choosing “green” products and services. Criteria can be based on a number of factors or combination of factors. Cost and life cycle assessment are two main factors in green purchasing decisions and are further described in the section below on implementation.

### **3.3.4. Implementation**

In order to successfully implement a green procurement policy the organization must have an effective communication plan, must assign tasks and accountability to those responsible for the green procurement policy and must strive to obtain acceptance by all stakeholders.

There are a number of obstacles to developing a green procurement program identified in Table 1. Most can be overcome through corporate buy-in and education and communication. There are three key obstacles which warrant further discussion:

#### ***Decentralized Purchasing***

One of the obstacles associated with green procurement is embedding green purchasing into an organization when purchasing decisions are decentralized. This is a challenge that may be overcome by creating an organizational culture that prioritizes the environment. This can be achieved by a) having buy-in on green procurement from upper management b) making purchasers accountable by implementing a tracking system, c) educating purchasers, d) making the procurement of green products easy by developing in-house databases and e) having dedicated personnel researching and becoming informed on green products (employee that can assist purchasers purchase green).

#### ***Identifying Legitimate Green Products***

It is not always easy to find legitimate green products. Mechanisms must be incorporated into the strategy to assist purchasers in finding good quality products. This can be achieved by using certified products (More information on locating products is found in Section 5); developing in-house expertise on green products and services; and regular audits of vendor operations.

#### ***Balancing Environmental Considerations against Cost and Use***

In order to measure environmental considerations against cost and use, manufacturers of products, will have to clearly describe the environmental benefit of using a green product or service (during use, end of life and or in the supply chain). This environmental benefit will

have to have been measured and assessed through a life cycle assessment. The purchaser will have to weigh this environmental benefit with the cost of the product.

In order to effectively measure environmental benefits, the purchaser must define “what they are measuring”. For instance, if they are purchasing electronic items which can be recycled, then a measurement assessing end of life environmental impacts may include the measurement of tonnes of used product diverted from landfill. The tonnes diverted may also be compared to baseline values established at the beginning of the green procurement program to show progress.

In some cases green products may have a higher cost. The purchaser will have to decide what premium they are willing to pay for this environmental benefit. Weighing environmental considerations against cost and use, can be defined in the purchasing policy itself. The different strategies used to address the issue of higher cost green items as outlined in the *North American Green Purchasing Initiative, Environmental Purchasing Policies 101* include (CEC, 2005)

- Refusing to pay extra.

In some cases purchasing policies focus solely on cost.

A policy based solely on cost may include the following wording:

*“Preference for Ecologo certified products....as long as the price does not exceed the price of a similar non-certified product.”*

- Providing some price flexibility

Some policies acknowledge that green products may have higher prices and therefore allow some flexibility in the price. Example of language that can be used within a policy providing price flexibility is as follows:

*“Preference shall be given to the purchase of environmentally preferable goods and materials whenever they perform satisfactorily and are available at a reasonable price”*  
(CEC, 2005)

It should be noted that as more green products are purchased and markets develop for green products then the price of these items will eventually drop.

- Establishing price preferences

A purchasing policy establishing price preferences provides permission to the purchasers to pay up to a xx% premium for green products or services. The concern of adopting such a policy is that manufacturers of green products may not have an incentive to make their products more affordable.

An example of wording that may be used within a policy establishing prices preferences is found below (CEC, 2005):

*“The xx agency, shall establish a price-preference of up to 10% for recycled paper products.”*

- Requiring life cycle cost evaluations

Balancing the cost should include not only the cost of the product but the cost of disposing packaging, special handling, storage, disposal of hazardous materials. Life cycle assessment measures emissions and waste produced through the life cycle of the product which includes production of raw materials, manufacturing, marketing, use and disposal. The Canadian Standards Association has developed the CSA Z760 guidelines for making life cycle assessments.

For example Manitoba's green procurement policy includes wording which accounts for life cycle cost evaluations (CEC, 2005):

*“Consideration of full cost accounting to ensure that no costs associated with the purchase decision or action, including externalized costs, are left unaccounted for”*

- Adopting “best value” purchasing principles

Purchasers may adopt a policy where the best value is more preferable than the lowest bid. The “best value” can incorporate environmental attributes in addition to performance criteria. In Oregon the statute allowing best value purchasing has the following language (CEC, 2005):

*“Competition exists not only in prices, but in the technical competence of suppliers, in their ability to make timely deliveries, and in the quality and performance of their products and services and that a balance must exist. Purchasers include environmental performance as one of the important indicators of a product or service's overall durability”.*

### 3.3.5 Sustainment

Sustaining and continually improving the green procurement policy can only be achieved by monitoring, by conducting reviews and audits of the current system (including reviewing the suppliers), having a structured review of technical information and celebrating success.

## 4.0 Resources to Assist in Developing Green Procurement Policies

### The North American Green Purchasing Initiative (NAGPI)

The Commission for Environmental Cooperation (CEC) is an international organization created by Canada, Mexico and the United States. Under the CEC the North American Green Purchasing Initiative (NAGPI) exists to foster green procurement.

The NAGPI has a set of excellent resources for those contemplating developing and maintaining a successful green procurement policy. Among the information is a compiled listing of existing ongoing green purchasing initiatives. The NAGPI has also developed a document entitled *“Environmental Purchasing Policies 101, an Overview of Current Environmental Preferable Purchasing Policies”*. This document provides information on the key components of a green procurement policy as well as it provides a sample green purchasing policy. The NAGPI has also developed a tool to assess purchasing initiatives, called the Eco-S.A.T., which allows purchasers to identify opportunities for improvement.

The web links for NAGPI and the various resources are included in Section 7.

### **Sustainability Purchasing Network**

The mandate of The Sustainability Purchasing Network is to provide support to organizations in their efforts to develop and improve their sustainability purchasing practices in British Columbia. Sustainability here is defined as a) best value for money, b) environmental aspects over life cycle of products, and c) social aspects.

The web/email links for the Sustainability Purchasing Network are included in Section 7.

## **5.0 Locating Green Products**

### **5.1 How to Buy Green Products**

A successful “green procurement policy” relies in part on smartly buying green products. There are some simple guidelines to follow when buying green products including:

- *Do not buy products that are too costly or do not work (Government Procurement, 2005)*
- *Start small by buying a handful of products that will make the most impact on the organization (Summit, 2006).*
- *Test products before recommending them and buy test batches (Summit, 2006).*
- *Get educated on the products and educate the users (Summit, 2006).*
- *Listen to the user. There may be a good reason not to use an environmentally preferred product or there may be another “green” product that could work (Government Procurement, 2005).*
- Create and update databases of green product information (so that the information is not lost)

Green products may or may not be certified. Although it is certainly easier for the consumer to choose environmentally certified products, non certified products can be just as good as certified products. Reasons suppliers do not certify products include:

- a) Cost for certification
- b) May require human resources that are unavailable
- c) Eco certification may not necessarily sell the product.

In order to purchase green products (certified and non- certified) the consumer needs to ask questions and become informed about the product in order to ensure the product meets their green procurement policy.

A number of resources may be used to provide guidance on purchasing green products and services. Some resources provide the tools for making informed decisions. Other resources provide listings of green products and services. In cases where products are not certified, the purchaser is responsible to find out more information about the product to ensure it meets their green procurement policy.

Depending on the product, the questions and level of detail will vary. A sample of some questions the purchaser may ask include:

- a) What standard was used to verify the product claims (*Summit, 2006*)?
- b) What materials are used to make your product (are they recycled)?
- c) Are there available Material Safety Data Sheets (MSDS) sheets?
- d) Do you test your product against human health and environmental standards (*Summit, 2006*)?
- e) Has a third party evaluated your product (*Summit, 2006*)?
- f) What process is used to make your product?
- g) Case studies?

A greater understanding of the product, how it is made, use, and disposal is required in order to develop more specific questions.

There is not one comprehensive database to assist purchasers find all available green products and services which can be purchased in Alberta. However there are several resources on green procurement some of which include databases on select products and services. There is also considerable information on certified “eco-labeled” green products and services.

This section provides some guidelines, resources on buying green products. It also provides information on some of the eco labeled products.

## **5.2 Resources for Purchasing Green Products**

This section provides information on some of the general resources that may be used by purchasers to find certified and uncertified green products and services.

The web links for each organization are included in Section 7.

### **NORTH AMERICAN**

#### **EcoBuyer**

EcoBuyer is a resource providing links to green products and services. The three main links provided are: Audubon Green Leaf™ Eco-Rating Hotels, EcoLogo Certified Products, OMOA Clean Marine Green Leaf TM Eco-Rating Program.

#### **G.I.P.P.E.R Guide to Environmental Purchasing Third Edition, 2001**

The GIPPER (Governments Incorporating Procurement Policies to Eliminate Refuse) Guide to Environmental Purchasing is a document which provides guidelines in choosing certain products and services. The committee producing the Guide is made up of Federal, Provincial, Municipal and others who are involved in waste management and purchasing.

The guide provides environmental criteria and considerations for products. Specifically, it includes criteria and considerations for all products, durable products, consumable supplies, criteria for packaging and guidelines for developing environmental specifications.

The guide also provides environmental Guidelines for the following products: cleaning products, compost, construction and demolition materials, energy efficient lighting products, lubricants, office equipment, paint, paper, plastics, rubber, packaging.

### Pacific Northwest Pollution Prevention Resource Centre.

The Pacific Northwest Pollution Prevention Resource Center (PPRC) is a non-profit organization that provides pollution prevention information.

The PPRC provides general information on green procurement and has compiled information on products and services that can assist purchasers find information on green products and find vendors selling green products. The areas covered include: automotive, building, cleaning, energy, floor coverings, furniture, office supplies, paper & paper products, plastics, shipping and receiving, and multiple products.

### Recycling Council of Alberta (RCA)

The RCA's mission is to promote and facilitate waste reduction, recycling, and resource conservation in the Province of Alberta.

Recycling Council of Alberta's Enviro Business Guide provides information and an on-line listing of companies.

### Calgary Materials Exchange:

The Calgary Materials Exchange provides contact information and facilitates participating Calgary industrial, commercial and institutional companies who have products to exchange.

## INTERNATIONAL

### Japan Green Purchasing Network

The Japan Green Purchasing Network (GPN) was established in 1996 provides resources and promotes green purchasing in Japan.

The Japan Green Purchasing Network (GPN) has come up with "***Purchasing Guidelines***" for a number of products (which may be used by anyone) which include: printing/copying papers, copiers, printers and facsimile machines, toilet paper, tissue paper, personal computers, refrigerators, stationary and office supplies, washing machines, lighting apparatus/lamps, motorcars, air conditioners, office furniture, TV's uniforms and work wear, offset printing services.





### **5.3 Resources for Purchasing Certified Green Products**

This section provides information on the various types of **certified** green products and services. These provide information on products that have been tested, generally by a third party.




Environmentally Labeled products are products having a distinct symbol which means they have been certified as being either energy efficient, use recycled materials, or minimize the use of hazardous substances (CSA, 1995). Table 5 lists some examples of environmental labels which can be used to help purchase green goods and services.



Table 5 Environmentally Labeled Products

Environmental Label	General Information	Available Green Products
<b>Canadian Labels</b>		
<p><b>EcoLogo<sup>®</sup> / Environmental Choice<sup>®</sup> Program</b></p>  <p><a href="http://www.environmentalchoice.com">www.environmentalchoice.com</a></p>	<p>The Environmental Choice<sup>®</sup> Program (ECP) is an eco-labeling program that was begun by the Government of Canada in 1988.</p> <p>This program uses a lifecycle review to evaluate environmental impacts of products and services. Products are certified by a third party and compared to ECP criteria. The EcoLogo<sup>®</sup> label is used to certify environmentally sound products under this program. TerraChoice Environmental Marketing manages the ECP. Presently there are over 3,000 products and services which have attained certification with the program.</p>	<p>The website contains a wide array of products and companies.</p> <p>Example of an EcoLogo certified product is Suncor's Ethanol Blended gasoline (Suncor, 2005)</p>
<p><b>EnerGuide</b></p>  <p><a href="http://oee.nrcan.gc.ca/energuide/index.cfm">http://oee.nrcan.gc.ca/energuide/index.cfm</a></p>	<p>In Canada, an EnerGuide label is required on major electrical household appliances and room air conditioners. The EnerGuide label identifies energy consumption.</p>	<p>Appliances</p>
<p><b>EPEAT</b></p>  <p><a href="http://www.epeat.net/">http://www.epeat.net/</a></p>	<p>The Electronic Product Environmental Assessment Tool is endorsed by the Electronic Product Stewardship Canada member companies and is tool which can help purchasers evaluate the environmental attributes of electronic products.</p> <p>There are three certification levels: Bronze, Silver and Gold.</p>	<p>Electronic Products (desktop computers, notebooks and monitors). The purchaser can search the EPEAT website by product and or by criteria (bronze, silver, or gold) to find the most suitable product.</p>
<p><b>Forest Stewardship Council of Canada:</b></p>  <p><a href="http://www.fsccanada.org">www.fsccanada.org</a></p>	<p>Products which have the FSC logo are certified to have come from a certified forest.</p>	<p>Products derived from forests (i.e. wood, paper).</p> <p>Certified companies and products may be found on the FSC website (includes distributors and retailers, manufacturers and suppliers).</p>
<p><b>Hotel Association of Canada Accommodation Rating Program</b></p> <p><a href="http://www.hacgreenhotels.com">www.hacgreenhotels.com</a></p>	<p>The Hotel Association of Canada has developed an eco Hotel rating system where hotels are rated as one to five green keys based on their environmental performance. Five green keys implies the hotel has the highest standard of environmental and social responsibility.</p>	<p>The website contains a map with a listing of hotels and their ratings.</p>

**Table 5 Environmentally Labeled Products**

Environmental Label	General Information	Available Green Products
<p style="text-align: center;"><b>Power Smart</b></p>  <p style="text-align: center;"><a href="http://www.bchydro.com/powersmart/">http://www.bchydro.com/powersmart/</a></p>	<p>Power Smart Seal is used on products that consume electricity and the Power Smart Saves Seal is used on non-electrical products that help save energy.</p> <p>BC Hydro administers this program and products must meet BC Hydro's standards before becoming certified.</p>	<p>Electrical products and non electrical products that help save energy.</p>
<p style="text-align: center;"><b>US Label</b></p> <p style="text-align: center;"><b>Green Seal®</b></p>  <p style="text-align: center;"><a href="http://www.greenseal.org/index.cfm">www.greenseal.org/index.cfm</a></p>	<p>This is a US labeling initiative which certifies products that meet criteria for low life cycle impact.</p>	<p>The website contains a listing of product categories. Within each category is the manufacturer's name and product name. Products include: hand cleaners, electric chillers, cleaners, fleet vehicle maintenance, floor care products, lodging properties, paints &amp; coatings, paper &amp; newsprint, windows and doors. Links exist which directly take you to the manufacturer's website.</p>
<p style="text-align: center;"><b>European Label</b></p> <p style="text-align: center;"><b>Blue Angel</b></p>  <p style="text-align: center;"><a href="http://www.blauer-engel.de">www.blauer-engel.de</a></p>	<p>A German Initiative where consumers can identify products which are energy efficient, use recycled or recyclable materials, minimize the use of hazardous substances or reduce pollution. There are roughly 3,800 products and services in Germany and abroad which are entitled to use the Blue Angel symbol.</p>	<p>The website contains an alphabetical listing of a number of product categories (i.e. batteries, printers, paper etc.). For a full listing see: <a href="http://www.blauer-engel.de/englisch/navigation/body_blauer_engel.htm">http://www.blauer-engel.de/englisch/navigation/body_blauer_engel.htm</a> Once a green category is chosen a listing of products with the Blue Angel label is listed. For example under the category of printers the HP Color LaserJet 2600n is identified (which is one of 69 different printers with the Blue Angel label).</p>

## 6.0 Conclusions

Green procurement programs involve the purchase of goods and services that have a lower negative impact on the environment and human health as compared to competing and currently used products.

Research has shown that some municipalities and private sector organizations have instituted green procurement programs. Although their number seems to be growing this practice is not yet wide spread.

The development of a green procurement program requires significant planning. Goals need to be defined, realistic and measurable. This goal needs to be reflected in a policy statement and green procurement strategy. The green procurement strategy needs to define the areas in which green products and services will be used as well as a clear set of protocols to achieve same. Through appropriate senior executive and staff buy-in as well as careful research and diligence a green procurement program can be a success.

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<http://www.epa.gov/opptintr/epp/pubs/about/about.htm>  
(Referenced as US EPA, 2006)

US EPA, Promoting Green Purchasing: Tools and Resources to Quantify the Benefits of Environmentally Preferable Purchasing, 2006  
[http://www.epa.gov/epp/tools/epp\\_metrics.pdf](http://www.epa.gov/epp/tools/epp_metrics.pdf)

## Section 3 Development and Implementation of a Green Procurement Policy

### Introduction

Government Procurement, The Journal of the Purchasing Professional, Leading by Example. Green Purchasing in King County, WA, 2005  
[www.govpro.com/Newsletters/Images/1005King.pdf](http://www.govpro.com/Newsletters/Images/1005King.pdf)  
(Referenced as Government Procurement, 2005)

North American Green Purchasing Initiative (NAGPI), Eco-S.A.T. A Green Purchasing Self Assessment Tool, Draft 2004  
[www.cec.org/files/PDF/ECONOMY/Eco-SAT-draft-Winter2003-2004\\_EN.pdf](http://www.cec.org/files/PDF/ECONOMY/Eco-SAT-draft-Winter2003-2004_EN.pdf)  
(Referenced as NAGPI, 2004)

### Steps to Develop a Green Procurement Policy

Canadian Standards Association CSA, Canadian Standard for Environmentally Responsible Procurement (CSA Z766-95) 1995  
<http://www.csa-intl.org/onlinestore/GetCatalogItemDetails.asp?mat=2004919&scopescroll=false&parent=472>  
(Referenced as CSA, 2005)

Commission for Environmental Cooperation, North American Green Purchasing Initiative, Environmental Purchasing Policies 101, an Overview of Current Environmental Preferable Purchasing Policies, 2004  
<http://www.cec.org/files/pdf//NAGPI%20Policy%20Paper2e.pdf>  
(Referenced as CEC, 2004)

## Section 4 Resources to Assist in Developing Green Procurement Policies

### Listing of Resources

Commission for Environmental Cooperation (CEC)  
North American Green Purchasing Initiative, Environmental Purchasing Policies 101, an Overview of Current Environmental Preferable Purchasing Policies, March 25 2004  
<http://www.cec.org/files/pdf//NAGPI%20Policy%20Paper2e.pdf>

Existing Green Procurement Initiatives  
[http://www.cec.org/files/pdf/ECONOMY/Green-Procurement\\_Initiatives\\_en.pdf](http://www.cec.org/files/pdf/ECONOMY/Green-Procurement_Initiatives_en.pdf)

North American Green Purchasing Initiative (NAGPI), Eco-S.A.T, a green purchasing self assessment tool, Draft 2004  
<http://www.cec.org/eco-sat/english/guide/section01/index.html>

North American Green Purchasing Initiative (NAGPI) (Related documents)  
[http://www.cec.org/programs\\_projects/trade\\_envIRON\\_econ/nagpi/docs.cfm?varlan=english](http://www.cec.org/programs_projects/trade_envIRON_econ/nagpi/docs.cfm?varlan=english)

Sustainability Purchasing Network  
[www.buysmartbc.com](http://www.buysmartbc.com)  
[spn@fraserbasin.bc.ca](mailto:spn@fraserbasin.bc.ca)

## Section 5 Locating Green Products

### How to Buy Green Products

Government Procurement, The Journal of the Purchasing Professional, Leading by Example, Green Purchasing in King County, WA, 2005  
[www.govpro.com/Newsletters/Images/1005King.pdf](http://www.govpro.com/Newsletters/Images/1005King.pdf)  
(Referenced as Government Procurement, 2005)

Summit Steps you can take to "Green" your procurement, the Chat room, hosted by David Newman (Summit, Canada's Magazine on Public Sector Purchasing), June 2006  
[http://www.summitconnects.com/Articles\\_Columns/PDF\\_Documents/200606\\_08.pdf](http://www.summitconnects.com/Articles_Columns/PDF_Documents/200606_08.pdf)  
(Referenced as Summit, 2006)

### Resources for Purchasing Green Products

EcoBuyer  
[www.ecobuyer.net](http://www.ecobuyer.net)

G.I.P.P.E.R Guide to Environmental Purchasing Third Edition, 2003  
<http://www.pmac.ca/PDF/gipper.pdf>

Pacific Northwest Pollution Prevention Resource Centre.  
[http://www.pprc.org/pubs/epp/epp\\_report.cfm#build](http://www.pprc.org/pubs/epp/epp_report.cfm#build)

Recycling Council of Alberta (RCA)  
[www.recycle.ab.ca](http://www.recycle.ab.ca)

Calgary Materials Exchange  
[www.cmex.ca](http://www.cmex.ca)

Japan Green Purchasing Network, "*Purchasing Guidelines*"  
<http://www.gpn.jp/English/guideline.html>

## Resources for Purchasing Certified Green Products

Canadian Standards Association CSA, Canadian Standard for Environmentally Responsible Procurement (CSA Z766-95) 1995  
<http://www.csa-intl.org/onlinestore/GetCatalogItemDetails.asp?mat=2004919&scopescroll=false&parent=472>  
(Referenced as CSA, 2005)

Suncor Energy, *2005 Report on Sustainability, Our Journey Towards Sustainable Development, Stepping forward through Innovation and Technology*, 2005  
(Referenced as Suncor, 2005)

EcoLogo<sup>M</sup> / Environmental Choice<sup>M</sup> Program  
[www.environmentalchoice.com](http://www.environmentalchoice.com)

EnerGuide  
<http://oeenrncan.gc.ca/energuide/index.cfm>

EPEAT  
<http://www.epeat.net/>

Forest Stewardship Council of Canada  
[www.fscscanada.org](http://www.fscscanada.org)

Hotel Association of Canada Accommodation Rating Program  
[www.hacgreenhotels.com](http://www.hacgreenhotels.com)

Power Smart  
<http://www.bchydro.com/powersmart/>

Green Seal®  
[www.greenseal.org/index.cfm](http://www.greenseal.org/index.cfm)

Blue Angel  
[www.blauer-engel.de](http://www.blauer-engel.de)

## APPENDIX 1

City of Spruce Grove, *Greening City Hall: Implementing a Municipal Green Procurement Policy*.  
Presentation to Recycling Council of Alberta Conference, Starve a Landfill...Feed the Future, October 12, 2005  
<http://www.recycle.ab.ca/2005Proceedings/JayneHolmes.pdf>

*Environmentally Responsible Procurement Policy, City of Toronto*  
<http://www.toronto.ca/tenders/environment.htm>



**Appendix 1**  
**Survey Summary of Alberta and Canadian Municipalities**

Table A1 Green Procurement Summary - Alberta Municipalities

<ul style="list-style-type: none"> <li>Municipality</li> <li>Contact</li> </ul>	<ul style="list-style-type: none"> <li>Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>Cost savings?</li> <li>Is the policy successful?</li> <li>Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>Number of years "Green Procurement Policy" has been implemented</li> <li>Method to identify Green Products</li> <li>Method to monitor program</li> <li>Method to assess success of program</li> <li>Challenges</li> </ul>
<b>CITIES</b>				
<b>City of Airdrie</b>	The City of Airdrie does not have a formal green procurement policy. Informally the City has some green procurement guidelines including consideration for purchasing recycled content paper.			
<b>City of Calgary</b>	<ul style="list-style-type: none"> <li>The Sustainable Environmental and Ethical Procurement policy (SEEP) will be going to Council for approval this year.</li> <li>Currently using an informal green procurement policy.</li> </ul>	<ul style="list-style-type: none"> <li>Include qualitative and quantitative criteria.</li> <li>For contractors – a) if a construction contractor, then have general requirements for them, standard general conditions, environmental package, training etc, waste management recycling conditions. b) for smaller projects, i.e. cleaning mats contract, then ask questions such as "what is their process, do they have an environmental management system etc. "</li> </ul>	<ul style="list-style-type: none"> <li>If green procurement is tracked then information shows up in an annual report however not tracked in all cases.</li> <li>There is no formal tracking system but will be developing a tracking system with the SEEP.</li> </ul>	<ul style="list-style-type: none"> <li>Informal policy has been used in the last three years.</li> <li>Currently have a green procurement database which is accessible to City of Calgary employees.</li> <li><u>Challenges</u>- may be difficult to enforce our environmental values on Countries that make products we buy that do not have strong environmental policies.</li> </ul>
<b>City of Edmonton</b>	The City of Edmonton is developing an Environmental Management System modeled after the ISO 14000 of which Green Procurement will be incorporated.			
<b>City of Grande Prairie</b>	<ul style="list-style-type: none"> <li>No formal policy</li> <li>In quotes and tenders have references to green procurement.</li> <li>Example is the LEEDS Silver RCMP building.</li> </ul>	<ul style="list-style-type: none"> <li>No formalized criteria. When buying paper purchase recycled paper.</li> </ul>	<ul style="list-style-type: none"> <li>Do not track.</li> </ul>	<ul style="list-style-type: none"> <li>One of the challenges is that their purchasing is decentralized and therefore it would difficult to manage the implementation of a "green procurement" policy.</li> </ul>

Table A1 Green Procurement Summary - Alberta Municipalities

<ul style="list-style-type: none"> <li>Municipality</li> <li>Contact</li> </ul>	<ul style="list-style-type: none"> <li>Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>Cost savings?</li> <li>Is the policy successful?</li> <li>Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>Number of years "Green Procurement Policy" has been implemented</li> <li>Method to identify Green Products</li> <li>Method to monitor program</li> <li>Method to assess success of program</li> <li>Challenges</li> </ul>
<b>City of Lethbridge</b>	The City of Lethbridge does not have a formal green procurement policy. They have some "green initiatives" i.e. working with a private developer to develop a "green subdivision" which includes geo thermal homes etc.			
<b>City of Medicine Hat</b>	The City of Medicine Hat does not have a formal green procurement policy.			
<b>City of Red Deer</b>	The City of Red Deer does not have a formal green procurement policy. A green procurement policy has been identified as a long term goal (within the next 5 years) in the City of Red Deer developing environmental management plan.			
<b>City of Spruce Grove</b>	City of Spruce Grove has a green purchasing policy. An excerpt of the green procurement definition and policy are found in Tables 3 and 4.	<u>General Criteria:</u> <ul style="list-style-type: none"> <li>Reusable, recycled or recyclable</li> <li>Energy efficient</li> <li>Non toxic, biodegradable</li> <li>Locally produced</li> </ul> <u>Packaging Criteria:</u> <ul style="list-style-type: none"> <li>Minimal or no packaging</li> <li>Buy bulk when available and suitable</li> <li>Refillable, recyclable, reusable or returnable</li> <li>Ongoing, proactive dialogue with suppliers.</li> </ul>	<ul style="list-style-type: none"> <li>Policy is not formally tracked.</li> <li>The policy is successful. For example, Corporate Services has switched all departments to recycled paper and use of environmentally friendly cleaning products is part of the janitorial contract.</li> <li>Environmental sustainability is one of six purchasing factors, along with cost. A general rule is 10% more for green products is acceptable.</li> </ul>	<ul style="list-style-type: none"> <li>The policy has been in place for one year.</li> <li>Products are selected by choosing Environmental Choice logo and Energy Star. Staff look up options on the Environmental Choice website. Also vendors are required to identify green options.</li> </ul> In order to achieve success in implementation include the following: <ul style="list-style-type: none"> <li>Staff buy-in</li> <li>Office Champions</li> </ul> Challenges include resistance to change.
<b>TOWNS</b>				
<b>Town of Banff</b>	The Town of Banff Purchasing Policy states that the Town is to consider green procurement when the goods and services are at competitive prices and the environmental benefits do not affect the use.	<ul style="list-style-type: none"> <li>Goods and services are at competitive prices.</li> <li>Environmental benefits do not affect the use.</li> </ul>	Information not obtained.	Information not obtained.

**Table A1 Green Procurement Summary - Alberta Municipalities**

<ul style="list-style-type: none"> <li>• Municipality</li> <li>• Contact</li> </ul>	<ul style="list-style-type: none"> <li>• Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>• Cost savings?</li> <li>• Is the policy successful?</li> <li>• Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>• Number of years “Green Procurement Policy” has been implemented</li> <li>• Method to identify Green Products</li> <li>• Method to monitor program</li> <li>• Method to assess success of program</li> <li>• Challenges</li> </ul>
<b>Town of Canmore</b>	The Town of Canmore does not have a formal green procurement policy. It is anticipated that by the end of the year there should be a policy.	Currently the Town of Canmore buys bio diesel, they buy wind power from ENMAX.	Not applicable	One of the issues is finding legitimate green vendors
<b>Town of Cochrane</b>	The upcoming Corporate Responsibility Plan will include recommendations for green procurement.			
<b>Town of Hinton</b>	The Town of Hinton does not have a formal green procurement policy. In the future green procurement will be implemented along with an established Environmental Management System. Presently, there is a policy on sustainable buildings.			
<b>Town of Jasper</b>	Municipal Council and employees of the Municipality of Jasper will demonstrate leadership in environmental stewardship by implementing alternatives and practices and by purchasing environmental responsible goods whenever practical.	<ul style="list-style-type: none"> <li>• Products are reusable, recycled and /or are recyclable</li> <li>• Product is made from highest available recycled material or post consumer content.</li> <li>• Product is durable and has a long life expectancy.</li> <li>• Product is energy efficient, rechargeable, uses renewable fuels or reduces water use.</li> <li>• Product is less toxic or non toxic, and is biodegradable</li> <li>• Product produced locally (reduce shipping and packaging requirements).</li> <li>• Packaging; minimal or no packaging preferred, purchase bulk when available, acquire packaging that is refillable, recyclable, reusable or returnable;</li> <li>• The product has been approved under the Environmental Choice program or has Energy Start Certification.</li> </ul>	<ul style="list-style-type: none"> <li>• Auditing will be used to assess the success of the program.</li> </ul>	<ul style="list-style-type: none"> <li>• There is no purchaser for the Municipality of Jasper</li> <li>• Managers and all staff are expected to follow the policy</li> <li>• Challenges include balancing cost with purchasing green.</li> </ul>

Table A1 Green Procurement Summary - Alberta Municipalities

<ul style="list-style-type: none"> <li>• Municipality</li> <li>• Contact</li> </ul>	<ul style="list-style-type: none"> <li>• Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>• Cost savings?</li> <li>• Is the policy successful?</li> <li>• Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>• Number of years “Green Procurement Policy” has been implemented</li> <li>• Method to identify Green Products</li> <li>• Method to monitor program</li> <li>• Method to assess success of program</li> <li>• Challenges</li> </ul>
<b>REGIONAL MUNICIPALITIES/COUNTIES</b>				
<b>Strathcona County</b>	There are environmental considerations incorporated into the purchasing manual.  Aspects of policy under review.	<ul style="list-style-type: none"> <li>•The following is a sample of the considerations included in the purchasing manual:</li> <li>•Are product/material quantities, size necessary?</li> <li>•Is there suitable alternative less harmful to the environment?</li> <li>•Does the product contain any banned or restricted substance?</li> <li>•Does the product require special disposal considerations?</li> <li>•Is the product energy efficient?</li> <li>•Are maintenance components environmentally damaging?</li> <li>•Are recycled materials used for replacement parts?</li> <li>•Are replacement parts recyclable?</li> <li>•Are supplies designed to reduce consumption?</li> <li>•Are supplies designed to minimize waste?</li> <li>•Are supplies non toxic?</li> <li>•Are recycled materials used to produce the supplies?</li> <li>•Are supplies reusable?</li> </ul>	Tracking is under review.	<ul style="list-style-type: none"> <li>• Policy has been in place since 1993.</li> <li>• Method to identify green products is under review.</li> <li>• It would help to network with other organizations that have existing programs.</li> </ul>

Table A2 Green Procurement Summary - Canadian Municipalities

<ul style="list-style-type: none"> <li>Municipality</li> <li>Contact</li> </ul>	<ul style="list-style-type: none"> <li>Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>Cost savings?</li> <li>Is the policy successful?</li> <li>Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>Number of years "Green Procurement Policy" has been implemented</li> <li>Method to identify Green Products</li> <li>Method to monitor program</li> <li>Method to assess success of program</li> <li>Challenges</li> </ul>
<b>Halifax Regional Municipality</b>	There is no formal detailed green procurement policy. The green procurement policy is at its preliminary stages with references to purchasing green products and services in the " <a href="#"><i>Halifax Regional Municipality Administrative Order Number 35 Procurement Policy</i></a> ".  Definition of green procurement found in Table 3.			
<b>City of Ottawa</b>	As part of the City of Ottawa's Corporate Environmental Action Plan 2004-2008 they are to develop a Green Procurement Policy.			
<b>City of Richmond</b>	Definition is found in Table 3.	<ul style="list-style-type: none"> <li>Criteria are defined in an "evaluation sheet" (checklist) which is provided to suppliers. The suppliers fill out the environmental information on the evaluation sheet.</li> <li>For buildings follow LEED certification criteria (certain sized buildings apply for certification however).</li> <li>There is also a guide book (identifies some of the common products that the municipality would use, share with all municipalities, needs to be updated)</li> </ul>	There is no formal tracking of the green procurement policy.	<ul style="list-style-type: none"> <li>Policy has been in place since 1990.</li> <li>Biggest challenge is with the suppliers. They are often small companies who are not aware of the environmental issues regarding their products (i.e. carpet cleaners). They typically do not have enough information to sufficiently fill out the checklists provided by the municipality.</li> <li>Another challenge is for the municipality to become information on green products and services. It is difficult to become informed on all products and services.</li> <li>Purchasing is decentralized and there is no one individual in charge of the green procurement policy. The decision to buy green products is left to each department.</li> </ul>
<b>City of Toronto</b>	Definition of green procurement found in Table 3.	(adapted from the City of Toronto Green Procurement Policy) <ul style="list-style-type: none"> <li>Reduce waste and make efficient use of resources: an</li> </ul>	Policy is not formally tracked.	<ul style="list-style-type: none"> <li>Policy has been in place since about 1989.</li> <li>Gipper guide is used in choosing green products</li> </ul>

Table A2 Green Procurement Summary - Canadian Municipalities

<ul style="list-style-type: none"> <li>Municipality</li> <li>Contact</li> </ul>	<ul style="list-style-type: none"> <li>Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>Cost savings?</li> <li>Is the policy successful?</li> <li>Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>Number of years “Green Procurement Policy” has been implemented</li> <li>Method to identify Green Products</li> <li>Method to monitor program</li> <li>Method to assess success of program</li> <li>Challenges</li> </ul>
		<p><i>Environmentally Preferred Product (EPP) would be a product that is more energy, fuel, or water efficient, or that uses less paper, ink, or other resources. For example, energy efficient lighting, and photocopiers capable of double-sided photocopying.</i></p> <ul style="list-style-type: none"> <li><i>Are reusable or contain reusable parts: these are products such as rechargeable batteries, reusable building partitions, and laser printers with refillable toner cartridges.</i></li> <li><i>Are recyclable: a product will be considered to be an EPP if local facilities exist capable of recycling the product at the end of its useful life.</i></li> <li><i>Contain recycled materials: an EPP contains post-consumer recycled content. An example is paper products made from recycled post-consumer fibre.</i></li> <li><i>Produce fewer polluting by-products and/or safety hazards during manufacture, use of disposal: an EPP product would be a non-hazardous product that</i></li> </ul>		<ul style="list-style-type: none"> <li>Challenges include: a) verifying the accuracy of information, b) keeping up with the latest information on green products, c) cost, d) ensuring the quality of green products is good.</li> </ul>

Table A2 Green Procurement Summary - Canadian Municipalities

<ul style="list-style-type: none"> <li>Municipality</li> <li>Contact</li> </ul>	<ul style="list-style-type: none"> <li>Example of Policy</li> </ul>	Define the Green Procurement Policy (i.e. criteria used)	Tracking: <ul style="list-style-type: none"> <li>Cost savings?</li> <li>Is the policy successful?</li> <li>Method to measure environmental impacts against cost and use</li> </ul>	Implementation: <ul style="list-style-type: none"> <li>Number of years "Green Procurement Policy" has been implemented</li> <li>Method to identify Green Products</li> <li>Method to monitor program</li> <li>Method to assess success of program</li> <li>Challenges</li> </ul>
		replaces a hazardous product. <ul style="list-style-type: none"> <li>Have a long service-life and/or can be economically and effectively repaired or upgraded."</li> </ul>		
<b>City of Vancouver</b>	The City of Vancouver does not have a formal green procurement policy. They presently have an "Ethical purchasing policy" which encompasses social values. Within the next year they will be implementing a "Sustainability Policy" which will encompass both social and environmental values. The City of Vancouver has an Energy Efficiency Policy. This policy states that employees are to buy energy efficient equipment, supplies and appliances wherever possible.			



**Appendix 2**  
**Samples of Green Tenders**

**The following green tenders are included in this appendix.**

<b>Item</b>	<b>Source</b>
Stationary	City of Calgary
Lubricants	City of Calgary
Construction, Renovation, & Demolition Waste Reduction	A sample tender provided by Alberta Environment

**City of Calgary Green Tenders are subject to the following disclaimer:**

Although the Environmental Criteria included in the Special Conditions of contract were assigned evaluation weighting, due to various factors such as product availability, performance specifications and price considerations, the product purchased may not necessarily have met all the environmental criteria listed."

## **APPENDIX X**

### **ENVIRONMENTAL EVALUATION OF GENERAL STATIONERY SUPPLIES**

#### **OVERVIEW**

It is recognized that there are wide variations in the environmental initiatives undertaken by paper manufacturers to reduce the environmental impacts of their operations. As such, company initiatives may not necessarily meet the requirements of each category of evaluation criteria. An “environmentally responsible” product will generate less impact on the environment than competing products in at least one area of comparison.

For each product area offered, discuss the environmental characteristics of the product in relation to the evaluation criteria. Certain criteria include examples of initiatives that may be considered, but are not exhaustive of all potential programs. The analysis will focus on all stages of the product life cycle, and the general environmental performance of the company. Although each category may not be applicable to all products, all criteria must be addressed.

Proposers are encouraged to provide any additional supplemental information provided by the manufacturer, including copies of third party certifications.

#### **ENVIRONMENTAL CRITERIA – GENERAL STATIONERY SUPPLIES**

1. **Certification**

Identify any products or materials with an environmental certification, for example:

- Eco-Logo (Environmental Choice Program)
- Green Seal
- Other 3<sup>rd</sup> party environmental certification

2. **Life Cycle Assessment**

Indicate whether the product or components have undergone a life-cycle assessment. If so, please provide supporting documentation.

3. **Material Acquisition**

Identify source materials that conserve natural resources or are acquired in a sustainable manner  
E.g. Use of wood harvested from a forest certified by the Canadian Sustainable Forestry Certification Coalition or wood certified by the Forest Stewardship Council

Identify initiatives to procure materials that are environmentally and socially responsible  
E.g. Conducting green procurement when purchasing from suppliers; approving only those suppliers who meet specified environmental requirements

4. **Manufacturing Location**

Indicate the location of the facility where the product is manufactured.

5. **Recycled Content**

Identify materials that contain recycled content, including percentage of recycled content and whether the material is from a post-consumer or post-industrial source.  
*Suggested minimum post-consumer recycled content for the most common materials include:*

- Plastic – 25%
- Metal – 50%

Wood – 50%

Paper – 50%

6. Hazardous & Toxic Substances

6.1 Toxic Compounds

Identify initiatives to eliminate, reduce and track all chemical substances that are handled, used and disposed of (either discharged on site or transferred off site).

6.2 Reduction of Toxic Substances

Identify initiatives to eliminate or minimize the use of toxic substances.

7. Indoor Air Quality

Identify initiatives to minimize emissions during production and/or in the finished product.

*E.g. substitution to water based paints and non-aerosol pigments; use of non-aerosol adhesives and sealants*

8. Waste Minimization

Identify initiatives to minimize waste at any stage of production through to delivery of the finished product. The following initiatives are suggested as a minimum guideline:

- Offer reusable or returnable shipping and packing material
- Minimize packaging and shipping materials
- Periodic waste audits

9. Product Recyclability

Identify initiatives that contribute to the recyclability of the product.

*E.g. manufacture take-back programs, refurbish options, recycled content, easy disassembly*

10. Energy Reduction & Sustainable Energy Used in Manufacturing

Identify initiatives to reduce energy consumption during the production and/or manufacturing processes.

Identify whether sustainable forms of energy are used in production. Quantify the contribution of sustainable forms of energy to the process (e.g. 50% wind-generated electricity)

11. Water Reduction

Identify initiatives to reduce water consumption during production and manufacturing, and to re-use or reclaim process wastewater. *A water consumption audit is highly recommended.*

12. Product Specific Criteria – Highlighters, Markers, Correction Fluid

- Water based / low-odour / non-toxic
- Refillable highlighters
- Alcohol-based markers (as opposed to ketone-based markers) preferred
- Conform to ASTM D-4236 or certified by the Art and Creative Materials Institute (ACMI)

13. Product Specific Criteria – Pens and Pencils

- Refillable
- Made from recycled plastic, metal, paper, cardboard or other materials

14. Product Specific Criteria – Binders

- Cardboard: 100% post consumer recycled content
- Paper-covered paperboard: 90% total recycled content with at least 75% post-consumer
- Solid plastic: HDPE, at least 90% post-consumer content; PET, 100% post-consumer content; other plastics, at least 80% post-consumer content

- Plastic covered paperboard: plastic (typically vinyl) at least 25% total recycled content; paperboard at least 90% total recycled content, with 75% post-consumer

15. Product Specific Criteria – CD's and Floppy Disks

- Refurbished or recycled
- Offer a collection and recycling program

16. Product Specific Criteria – File Folders

- 100% total recycled content with at least 30% post consumer content

17. Product Specific Criteria – Transparencies

- 50% total recycled content with at least 25% post consumer content

18. Product Specific Criteria – Post-IT Notes

- 100% total recycled content with at least 30% post consumer content

## LUBRICANTS

### Appendix \*

#### Environmental Considerations

Appendix \* criteria apply to:

Appendix X	*****
Appendix Y	*****
Appendix Z	*****

For each product identified in Appendixes X, Y and Z, of the tender, identify initiatives undertaken by your company to perform in a manner more responsible and duly diligent to the environment. The categories include examples of initiatives that will be considered, however the elements listed are not exhaustive of all potential programs.

It is recognized that within the petrochemical industry there are a variety of possible environmental initiatives that may be undertaken. Not all companies may focus on the same activities. Accordingly it is acknowledged that a company initiative may not fall within each category. A “greener” product will demonstrate that it has less impact on the environment in one or more areas of comparison.

- 1.0 Identify whether any of the following have received 3<sup>rd</sup> party environmental certification (including Eco-Logo, Green Seal, ISO 14001, other)\*:
- Head office, laboratory, processing facility, manufacturing plant, warehouse or other associated facilities that your company, parent company, supplier, manufacturer or distributor currently uses or occupies
  - Any commercial products manufactured, processed, assembled, sold or distributed by your company
- \* *This category does **not** apply to the ISO 9000 Quality Management System Standard*

#### 2.0 Facility Location

Indicate the location of the facility:

- where the product is manufactured and or produced
- from which the product is distributed

#### 3.0 Disclosure of Organic Halide Content

- Indicate whether or not the product contains organic halides. If so, quantify amounts present (parts per million) in the product.

#### 4.0 Disclosure of Volatile Organic Compounds (VOC's)

- Indicate whether or not the product contains VOC's. If so, quantify which VOC and amount present (percent by volume) in the product.

#### 5.0 Disclosure of Toxic/Hazardous Substances

- 5.1 Declare all ingredients in the product that are known carcinogens or are suspected carcinogens. *Must disclose amounts of benzo(a)pyrene and benzo(a)anthracene in the product*

- 5.2 Declare all ingredients in the product that are known to cause or are suspected of causing reproductive effects, endocrine or nervous system disorders
- 5.3 Declare all hazardous materials released to the environment during manufacturing and production of the product

6.0 Statement of Biodegradability

If product is marketed as biodegradable, disclose the:

- a. time taken for product to degrade
- b. recognized test method used to determine biodegradability
- c. degradation by-products
- d. overall toxicity of substances generated during the degradation process

Indicate whether product contains more than 3% (w/w) of an additive that is not proven to be biodegradable

7.0 Minimization of Toxic / Hazardous Substances

- Identify initiatives to eliminate or minimize the use of toxic and or hazardous substances in the production of the product
- Disclose methods and results of aquatic or other ecological toxicity testing

8.0 Disclosure of Restricted and Regulated substances

8.1 Indicate any ingredients in the product which are restricted under Part 3 of the *Canadian Environmental Protection Act (1999)*

8.2 Indicate any ingredients in the product which are regulated by the *Canadian Council of Minister for the Environment (CCME) Environmental Quality Guidelines*, and *Alberta Surface Water Quality Guidelines (1999)*

9.0 Recyclability of Product Packaging

- Include a statement indicating whether the product packaging can be recycled, returned (taken back to supplier) and/or reused.

10.0 Waste Reduction

Identify initiatives to minimize waste at any stage of production or delivery of the finished product. Initiatives might include:

Waste reduction initiatives within the production/manufacturing process  
Use of *re-refined oil* or equivalent substance in product manufacture

11.0 Product Disposal

- Indicate any special disposal methods are necessary in the event that sufficient quantities of the product must be disposed of.

12.0 Energy / Water Reduction

- Provide information on initiatives to reduce energy and water consumption during the production, manufacturing, and distribution processes.

**Environmental Awareness and Community Involvement**

- Indicate any initiatives undertaken by your company to encourage environmental stewardship, awareness, education and diligence within your employees and community (e.g. community cleanups, scholarships).
- Comment on any activities in which your company participates that promotes community and social involvement (e.g. picnics, events, functions).
- Describe any environmental movements that your company supports (e.g.: Earth Day, Friends of the Environment, WWF, Canadian Nature Federation).

**Additional process or product innovations**

- Identify any additional initiatives that highlight the company's efforts to improve environmental performance. These might include:
  - Initiatives to eliminate processes that require the use of hazardous materials.
  - Minimization of raw material inputs.
  - Research and development to provide more environmentally benign products
  - Supporting chemical/hazardous substance awareness programs for schools and at home



## **How to Use the Sample Specification for Construction, Renovation & Demolition Waste Reduction**

*The attached Sample Specification for Construction, Renovation & Demolition (CRD) Waste Reduction is intended to help Owners, Architects and Engineers ensure that their projects are using resources efficiently and responsibly. This sample specification encourages contractors to consider practical and economical alternatives to landfilling of CRD waste. Experience has demonstrated that when contractors are challenged to reduce CRD waste and are required to report on how they manage these materials, creative ways are invariably found to reduce waste production, and economically reuse and recycle materials that would have otherwise been discarded.*

*The goal of this specification is to encourage contractors to think about waste management as one of the performance criteria used to measure the overall success of their project, in much the same way as they currently think about safety, quality, workmanship, schedule and cost.*

*The language used in this document can be readily incorporated into the General Conditions of most specifications. As written, they are intended to promote voluntary waste reduction and recycling to the extent practical by requiring the successful bidder to submit a Waste Reduction and Management Plan, which is used by the Owner to monitor the actual flow of waste materials from the site.*

*Some contractual options can be used to enhance the attainment of waste reduction goals. Some examples of these include:*

**Specifying Waste Reduction Goals** – *Readily-achievable waste reduction goals (e.g. 25% of overall waste production) are often specified as a minimum acceptable target. Another approach is to directly specify materials that must be recycled (e.g. those for which well-established recycling infrastructure and markets exist, such as cardboard, metals, wood, concrete and asphalt).*

**Using Bid Alternates** – *By requiring the submission of bid alternates for undertaking specific waste reduction or recycling actions, the Owner can determine whether these measures are economically feasible for this project and assess the actual costs or savings attributable to waste reduction.*

**Identifying Waste Disposal Costs** – *By requiring bidders to include a line item for waste disposal costs, Owners can determine whether savings may be achievable by removing waste management from the Contractor's scope of work and hiring an independent waste manager to handle all waste recycling and disposal.*

## **Sample Specification for Construction, Renovation & Demolition Waste Reduction**

### **Waste Management Goals**

The Owner wishes to minimize the amount of waste generated by this Project. The Contractor shall take all reasonable measures to avoid waste production. Of the inevitable waste that is generated, efforts shall be made to maximize the amount of material that can be practically and economically salvaged for reuse and recycling.

### **Waste Reduction and Management Plan**

Within      days after receipt of Notice of Award of Contract, or prior to any waste removal, whichever occurs sooner, the Contractor shall submit to the Owner and Consultant a Waste Reduction and Management Plan. The Contractor may use the attached sample for formulating the plan, or provide a customized form containing the same information. The Plan shall contain the following information:

1. Analysis of the proposed jobsite waste to be generated, including the estimated types and quantities of reusable and recyclable materials and non-salvageable waste designated for disposal to landfill.
2. The Plan shall identify the proposed method of disposition (reuse/resale, recycling, or disposal) for each of the following materials:
  - Landclearing and excavation debris (trees, shrubs, large rocks, and soil)
  - Concrete, asphalt, masonry, tile, and aggregate
  - Cardboard and paper
  - Scrap metal
  - Clean, untreated dimensional wood (including pallets)
  - Drywall
  - Insulation
  - Windows, doors and frames
  - Electrical equipment and light fixtures
  - Mechanical equipment
  - Plumbing fixtures
  - Cabinets, casework, wood paneling, moldings and hardwood flooring
  - Asphalt roofing materials
  - Carpeting
  - Paints, solvents and hazardous wastes
  - Specialty items including heritage architectural items
  - Other materials (specify)

### **Waste Reduction and Management Plan Implementation and Reporting**

The Contractor shall provide the necessary instruction and supervision of all site personnel and subcontractors to ensure they understand the Project's waste management goals and employ the appropriate material disassembly, separation, handling, reuse and recycling practices required to achieve the waste reduction targets.

The Contractor shall take all reasonable measures to minimize waste production by avoiding supply of excess materials, minimizing over-packaging, and preventing damage to materials due to mishandling and improper storage.

The Contractor shall selectively conduct all demolition and deconstruction work in such a manner as to carefully dismantle items containing salvageable materials that can be economically reused, resold or recycled.

The Contractor shall store all salvaged material designated for reuse, resale or recycling in secure, segregated and labeled stockpiles or bins to preclude mixing and contamination, and to protect materials from mishandling, theft, vandalism, weather damage, and fire.

The Contractor shall submit with each Application for Progress Payment a Summary of Waste Generated by the Project. Failure to submit this information shall render the Application for Payment

incomplete and shall delay progress payment. The Summary shall be submitted on a form acceptable to the Owner that readily enables the actual quantities and method of disposition of each material to be compared to the Waste Management Plan. Manifests, weigh scale tickets, receipts and invoices shall be attached to the Summary to substantiate quantities and final destinations of all material leaving the site.

The Contractor shall submit with the Application for Construction Completion Certificate a Waste Generation Summary report summarizing the total quantity of waste material generated by the project, and the amounts reused/resold, recycled, and disposed

**Appendix 3**  
**Municipal, Government and Business Contact Information**

<b>CONTACT INFORMATION – ALBERTA MUNICIPALITIES</b>	
<p><b>City of Airdrie</b></p> <p>Kathleen Muretti Purchasing Department Phone: (403)948-8800 <a href="mailto:Kathleen.Muretti@airdrie.ca">Kathleen.Muretti@airdrie.ca</a></p>	<p><b>City of Spruce Grove</b></p> <p>Jayne Holmes Sustainable Development Coordinator Phone: (780)962-7634 x164 <a href="mailto:jholmes@sprucegrove.org">jholmes@sprucegrove.org</a></p>
<p><b>City of Calgary</b></p> <p>Lindsey Pasay, B.Sc., LEED AP EnviroSystem Coordinator, Corporate Properties &amp; Buildings EnviroSystem Coordinator, Supply Management Phone: (403)268-1738 Email: <a href="mailto:lindsey.pasay@calgary.ca">lindsey.pasay@calgary.ca</a></p> <p>Matthew Overton Senior Buyer, Supply Management Phone: (403) 268-1401 <a href="mailto:matthew.overton@calgary.ca">matthew.overton@calgary.ca</a></p>	<p><b>Town of Banff</b></p> <p>Chad Townsend Environmental Services Coordinator Planning &amp; Development Phone: (403)762-1110 <a href="mailto:chad.townsend@banff.ca">chad.townsend@banff.ca</a></p>
<p><b>City of Edmonton</b></p> <p>Mark Brostrom Director of the Office of the Environment Phone: (780)496-2791. <a href="mailto:Mark.brostrom@edmonton.ca">Mark.brostrom@edmonton.ca</a></p>	<p><b>Town of Canmore</b></p> <p>Don Kochan Deputy CAO Phone: (403)678-1551 <a href="mailto:dkochan@canmore.ca">dkochan@canmore.ca</a></p>
<p><b>City of Grande Prairie</b></p> <p>Bob MacNeill Purchasing Manager Phone: (780) 538-0300 <a href="mailto:bmacneill@cityofgp.com">bmacneill@cityofgp.com</a></p>	<p><b>Town of Cochrane</b></p> <p>Lisa Maria Fox Environmental Coordinator Phone: (403)851-2582 <a href="mailto:Lisa.Fox@cochrane.ca">Lisa.Fox@cochrane.ca</a></p>
<p><b>City of Lethbridge</b></p> <p>Mr. Steve Rozee, Waste &amp; Recycling Specialist Phone: (403)320-3114 <a href="mailto:srozee@lethbridge.ca">srozee@lethbridge.ca</a></p>	<p><b>Town of Hinton</b></p> <p>Tammy Powell Property and Project Manager Phone: (780) 865-6030 <a href="mailto:tpowell@Hinton.ca">tpowell@Hinton.ca</a></p>
<p><b>City of Medicine Hat</b></p> <p>Russ Smith Manager, Environmental Management City of Medicine Hat Phone: (403)529-8188 <a href="mailto:russmi@medicinehat.ca">russmi@medicinehat.ca</a></p>	<p><b>Strathcona County</b></p> <p>Elli Partridge Facility Services phone: (780)464-8402 <a href="mailto:partridge@strathcona.ab.ca">partridge@strathcona.ab.ca</a></p>
<p><b>City of Red Deer</b></p> <p>Pam Vust Environmental Initiatives Coordinator Phone: (403)342-8751 email: <a href="mailto:pam.vust@reddeer.ca">pam.vust@reddeer.ca</a></p>	<p><b>Town of Jasper</b></p> <p>Nicole Ward Environmental Stewardship Coordinator Phone: (780)852-1563 <a href="mailto:nward@town.jasper.ab.ca">nward@town.jasper.ab.ca</a></p>

CONTACT INFORMATION- CANADIAN MUNICIPALITIES	CONTACT INFORMATION- GOVERNMENT
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<p><b>City of Ottawa</b></p> <p>Phil Andrews, Program Manager, Purchasing, Phone: (613) 580-2424, ext. 25176 <a href="mailto:phil.andrews@ottawa.ca">phil.andrews@ottawa.ca</a></p>	<p><b>Alberta Environment</b></p> <p>David H. Whitfield Regional Waste Minimization Specialist Bow Region Phone: (403) 297-8255 <a href="mailto:Dave.Whitfield@gov.ab.ca">Dave.Whitfield@gov.ab.ca</a></p> <p>Jodi Tomchyshyn, M.E.Des Pollution Prevention &amp; Conservation Phone (780) 644-4488 <a href="mailto:Jodi.Tomchyshyn@gov.ab.ca">Jodi.Tomchyshyn@gov.ab.ca</a></p>
<p><b>City of Richmond</b></p> <p>Margot Daykin Assistant Manager of Environmental Programs Phone: (604)276-4130 <a href="mailto:mdaykin@richmond.ca">mdaykin@richmond.ca</a></p>	<p><b>CONTACT INFORMATION - BUSINESS Hewlett- Packard (Canada) Co.</b></p> <p>Frances Edmonds Director of Environmental Programs Phone: (905) 206-4208 <a href="mailto:frances.edmonds@hp.com">frances.edmonds@hp.com</a></p>
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<p><b>City of Vancouver</b></p> <p>Larry Berglund Manager, Material Management for City of Vancouver Phone: (604)873-7254 <a href="mailto:larry.berglund@vancouver.ca">larry.berglund@vancouver.ca</a></p>	<p><b>Mountain Equipment Co-op</b></p> <p>Janet Stollar Team Leader/Learning Coordinator Sustainability Coordinator Service Centre Phone: 1-800-663-2667 <a href="mailto:jstollar@mec.ca">jstollar@mec.ca</a></p>