

5. TOWARDS GREENER GOVERNMENT PROCUREMENT: AN ENVIRONMENT CANADA CASE STUDY

*Loretta Legault
Director of Environmental Operations
for Government
Environment Canada, Canada*

EXECUTIVE SUMMARY

Greener government purchasing is part of the Government of Canada's larger goal of integrating sustainable development into the day-to-day decision-making of federal managers and employees. To this end, all federal departments and agencies in December 1997 were required to table sustainable development strategies in Parliament which included action plans to address some of the environmental, economic, and social impacts of each department's or agency's policies, programs and operations. Federal departments and agencies are presently preparing their second sustainable development strategies, which are due for submission by December 2000.

The Government of Canada can play an important role in advancing greener procurement by virtue of the degree of public scrutiny paid to federal purchases and the fact that it is the largest single buyer and property manager in Canada. Greener government procurement can result in many benefits to federal departments, which include cost savings, enhanced credibility and improved employee morale. It also supports Environment Canada's broader mandate by strengthening market demand for environmental goods and services, and by promoting greater environmental awareness in Canadian industry.

As part of its sustainable development strategy, Environment Canada, like other federal departments, is demonstrating environmental leadership through the implementation of a comprehensive environmental management system (EMS). An EMS will enable the Department to manage its internal environmental issues (including greener procurement) more strategically. A department-wide working group on greener procurement was recently established to develop a mini-EMS for greener procurement issues which will guide future Environment Canada efforts. To date, Environment Canada has emphasized a pragmatic approach based on taking small steps to achieve concrete results. Leadership from senior management champions has been essential to drive the cultural changes necessary to integrate environmental considerations into day-to-day Environment Canada procurement decisions.

Environment Canada is working in partnership with other departments, non-governmental organizations, and industry to increase greener purchasing for those products and services which have significant economic and environmental impacts. Many important initiatives have been undertaken, including: the purchase of technologies to convert Environment Canada vehicles to alternative fuels; the development and

implementation of environmentally-sensitive accommodation standards; and the development of the *Hotel Eco-efficiency Rating Program*. Environment Canada is also working in partnership with provincial governments and other countries through the Organization of Economic Co-operation and Development (OECD) and the Asia-Pacific Economic Co-operation (APEC) forum to share best practices and tools, and to build our collective capacity.

Through its internal efforts and external partnerships, Environment Canada has learned that an effective greener procurement strategy should incorporate general change-management principles which include: securing commitment from senior managers to champion the change process; clearly defining accountability; and limiting initial efforts to reaching for “low-hanging fruit”. Although many positive steps have been taken, more work is required to make procurement by federal departments greener. For this reason, Environment Canada will continue working internally and with government and industry partners to advance greener procurement as part of its overall environmental mandate.

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“Greener Government Purchasing” continues to be an important component of the Government of Canada’s larger strategy to advance sound environmental management in its policies and operations. Over the last two years, Environment Canada has continued working to promote greener procurement within its own operations as well as within industry, other federal government departments, and other levels of government.

The Government of Canada’s Purchasing Power

The Government of Canada, through its purchasing practices, can have a significant impact on the national economy, and the goods and services made available in the marketplace. The federal government’s impact is articulated in several different ways. First, spending by the Government of Canada is highly visible and is frequently scrutinized by the media and general public. This public scrutiny provides the federal government with both the opportunity and the obligation to lead by example in demonstrating its environmental commitment through greener purchasing practices. This issue of environmental leadership is particularly relevant for Environment Canada as its policies and actions must be consistent with each other in order for the department to be credible nationally and internationally.

Second, as the largest single buyer and property manager in Canada, the federal government has an opportunity to have a tremendous impact by harnessing its spending power. A 1996 report by Price Waterhouse¹ estimated that the Government of Canada spends \$11.6 billion annually on products and services, and manages approximately 64,000 buildings throughout Canada. In some areas, such as the environmental industry sector, computer purchases, and defense and security products, the federal government is among the largest buyers due to the high dollar value of purchases made and its unique procurement requirements. In these areas, government procurement has the potential to

¹ Price Waterhouse. *Costs and Benefits of Greening Federal Government Operations*. Environment Canada. (May 15, 1996).

be an important driver for the supply of environmentally preferable products and services.

Benefits of Greener Government Procurement

Greener government procurement can result in many environmental, economic and social benefits. Some of the environmental and economic advantages of purchasing environmentally friendly products and services include:²

- Increased savings by buying goods which can be reused or remanufactured;
- Lower costs due to efficient waste and hazardous materials management;
- Cost savings by employing energy, water, and fuel conserving devices;
- Lower health costs related to exposure to toxics; and
- Reduced demand for landfill space.

Greener government procurement also supports Environment Canada's mandate to promote pollution prevention, the use of environmental management systems, and the application of life-cycle management concepts. A Canadian study found that federal government procurement has the potential to broadly stimulate manufacturers, and suppliers to upgrade their processes, implement cleaner production techniques and change the way in which their services are delivered.³ In this way, greener federal procurement is an important complement to a broad mix of policy tools such as voluntary programs, economic instruments, and reporting mechanisms that seek to influence industry through non-legislative means.

Effective use of federal spending power also helps to strengthen market demand for environmental goods, services, and technologies, thus supporting development of and innovation in Canada's environmental industry. The environmental industries sector in Canada is large and growing. It is composed of 5,950 firms employing 159,932 workers and has annual sales of \$11.6 billion.⁴ Canada's environmental industry is largely an enabling sector that provides expertise, technologies, and services to meet the environmental needs of traditional industrial sectors. While strong environmental regulations are one of the most important drivers for the demand of environmental services, federal spending can certainly add to overall market demand for these services.

Finally, the process of implementing a greener government procurement strategy is an effective means to foster positive cultural change and improve employee commitment within individual departments. This is due to the fact that greener government action-plans and training programs engage employees in the change process, increase organizational awareness, and encourage personal responsibility for the environment.

² *National Workshop on Greener Government Purchasing: Workshop Proceedings*. Government of Canada. November, 1996; and *National Round Table on the Environment and the Economy*. Federal Green Procurement Task Force.

³ *Going for Green: Meeting Foreign Demand for Environmentally Preferable Products and Services through Federal Procurement. Backgrounder: National Round Table on the Environment and the Economy*, 1997.

⁴ Statistics Canada. *Environment Industry 1997*.

THE GOVERNMENT OF CANADA'S FRAMEWORK FOR SUSTAINABLE DEVELOPMENT

The goal of greener government procurement fits within the Government of Canada's broader effort to integrate environmental and sustainable development considerations into the day-to-day decision-making of managers and employees at all levels. A broad framework has been established to advance sustainable development in federal departments. In 1995, legislation was passed requiring federal government departments and agencies to table sustainable development strategies in Parliament by December of 1997. Sustainable development strategies include action plans to address some of the economic, environmental, and social impacts of each department's policies, programs, and operations. To ensure momentum is maintained, departments must publicly report their progress in achieving their targets every year and update their strategies every three years. A Commissioner of the Environment and Sustainable Development was also mandated to monitor how departments have implemented their action plans and to determine whether they have met the objectives of their sustainable development strategies.⁵

In an effort to guide departmental work on sustainable development, the Government of Canada endorsed two key policies in 1995. *A Guide to Green Government* outlines the federal government's commitment to integrate sustainable development into the way government defines its operations and makes decisions. The *Directions on Greening Government Operations* policy directs departments to implement environmental management systems (EMS) and identifies greener procurement as a key environmental issue to be addressed each department.

Since the tabling of the first round of Sustainable Development Strategies in 1997, federal departments have been told that they need to establish clear and measurable targets by which the public can judge whether their strategies are being successfully implemented. In addition, they have also been told that while many actions have been taken, it does not appear that appropriate management practices are being applied to ensure successful implementation of Sustainable Development Strategies within departments.

A recently released document outlines the expectations for the second generation of Sustainable Development Strategies, which are due in December 2000. Three points were stressed: departments should undertake an assessment of their first strategy; careful planning is needed to identify priority areas for action that are clearly linked to departmental impacts on Sustainable Development; and adequate management systems are needed to ensure implementation.

As part of an effort to set a common direction for the next round of sustainable development strategies the government recently released *Sustainable Development in Government Operations: A Strategy for Excellence*. The strategy is based on the commitments outlined in *A Guide to Green Government* and recommends best practices in seven priority areas, including greener procurement. The strategy proposes a set of collaboratively developed performance measures and offers a sample set of concrete targets.

⁵ Amendments to the Government of Canada's *Auditor General Act*, 1995.

To create a forum for discussion on the issues, A Leader's Forum on Sustainable Development was recently held. This forum was an opportunity for senior federal government officials to consult with senior representatives of Canadian society on the Government of Canada's approach to sustainable development. This was a first step and federal departments will hold further consultations on their proposed Sustainable Development Strategy.

Many departments in the federal government have taken steps towards examining methods by which they can reduce the environmental impact of the goods and services they acquire; greener government procurement is a part of many departments' sustainable development strategies. However, departments continue to find barriers and challenges to the systematic implementation and tracking of "green" procurement. Some work is required to understand these challenges better and design appropriate solutions.

To provide guidance on the specific issue of greener government procurement, the Government of Canada has included environmental requirements in its *Material Management Policy*. The policy requires managers to "include environmental considerations in all aspects of managing material from the planning phase through acquisition, use, and disposal of material."⁶ In addition, direction is also provided to apply the four R's (reduce, reuse, recycle and recover) throughout management of the material life-cycle: planning, acquisition, maintenance/operations, and disposal.

The *Material Management Policy* is important, as it outlines the broad goal towards which federal departments must strive. However, because each department must establish its own path for implementation, little guidance has been given to assist federal departments in the specifically how to apply this policy to their operations. This absence of procurement targets, monitoring and reporting requirements, and high-level "signaling" regarding the importance of greener procurement pose challenges to the implementation of the policy.

The Treasury Board Advisory Committee on Contracts has been asked to form a working group on Procurement Strategy for Sustainable Development. This was as a result of the federal government's mid-term policy planning process. This working group deals with horizontal issues across the federal government and is exploring ways to advance the cause of sustainable development through sustainable procurement.

Another initiative is the interdepartmental committee on Performance Measurement for Sustainable Government Operations, which was established in 1997. This committee looked at how to establish, define, and promote the use of common measurements as they relate to sustainable government operations. A guidance document on Indicators for Environmental Performance Measurement for Government Operations was developed to assist federal departments as they establish reporting systems to track performance towards greening their operations.

CHALLENGES TO GREENER GOVERNMENT PROCUREMENT

Federal departments still face other challenges in increasing the quantity of greener goods and services purchased. One is the increasingly decentralized manner in which

⁶ Treasury Board Material Management Policy, 1995. Chapter 1-1 of the "Material, Risk and Common Services" volume of the *Treasury Board Manual*.

purchasing is done in federal departments. The procurement process has dramatically changed in recent years due a reduced reliance on central purchasing agents and a corresponding increase in the number of managers and employees who have authority to make purchases through non-electronic instruments such as credit cards. Within Environment Canada, procurement decisions were previously coordinated by a small group of professional procurement officers. Today, however, more than 25 percent of employees have the authority to make purchases of goods and services valued up to \$5,000.⁷ These purchases, in terms of actual transactions, account for the majority of Environment Canada's acquisitions. This trend will only grow in time as purchasing authority is expected to increase to up to \$25,000 Canadian dollars (CDN) in the coming years.

Decentralization and the reliance on non-electronic purchasing instruments make it difficult for departments to accurately measure and monitor the purchasing practices of its employees, particularly for those items under CDN\$5,000. As a result, departments often do not have the necessary information to quantify the percentage of greener purchases made; to develop concrete procurement targets; and to measure the effectiveness of greener procurement action plans.

Limited time and financial resources also pose challenges to increasing greener government procurement. There is a frequently held misconception that environmentally preferable products cost more and perform less well than their alternatives.⁸ As a result, ongoing and punctual educational efforts are needed to change these negative biases.

There are cases where the original acquisition costs of greener goods are indeed higher. However, the economic benefits for these greener goods can often be demonstrated when the costs associated with the full product life-cycle are factored into the buying decision. Unfortunately, managers typically do not have the capacity nor time to calculate the life-cycle costs and benefits of their procurement decisions. This is particularly the case for goods such as computer or laboratory equipment that experience a high rate of technological change. Moreover, most, if not all, of the secondary costs do not represent a charge against managers' budgets. As a result, procurement decisions are all too often based on perceptions of product quality and original acquisition costs.

Limited resources pose a special concern for managers responsible for the environmental management of the internal operations of departments. They typically employ a risk management approach to prioritize the use of funds for internal environmental activities related to health, safety, and legal compliance. As a result, internal greener procurement initiatives often do not receive adequate attention or resources.

Another complicating factor for government departments is the need to reconcile the goal of greener purchasing with other competing priorities. Government procurement is often employed to advance a range of policy objectives. Managers must evaluate other considerations including competitive pricing, job creation, reduction of regional disparities, and the promotion of employment equity. One example is the federal

⁷ *Procurement Profile: National Capital Region*, Stefan Janhager, Administration Directorate, Environment Canada. November 29, 1995.

⁸ *Going for Green: Meeting Foreign Demand for Environmentally Preferable Products and Services through Federal Procurement. National Round Table on the Environment and the Economy*, 1997.

Procurement Strategy for Aboriginal Business (PSAB).⁹ The purpose of this strategy is to increase representation of Aboriginal business in federal government contract awards and sub-contracts. All federal departments and agencies with contracting budgets in excess of CDN\$1 million must develop and report on multi-year performance objectives, such as the estimated number and dollar value of contracts awarded to Aboriginal businesses. As a result of these different procurement priorities, win-win solutions are not always possible.

International trade agreements also complicate the government procurement process. Departments of the government of Canada are subject to various trade agreements, including the 1996 World Trade Organization Agreement on Government Procurement and the 1992 North American Free Trade Agreement (NAFTA). These agreements have been endorsed to eliminate barriers to trade and to facilitate the cross-boarder movement of goods and services between signatory countries. As a result, enterprises of signatory countries can bid for contracts which exceed the thresholds of the varying agreements. For example, the government of Canada must open contracts for goods CDN\$34,100 or greater to the United States; while the threshold for services for both the United States and Mexico is approximately CDN\$72,000.

In some cases, these trade agreements hinder greener government purchasing as contracts can only specify greener performance criteria, and cannot, for example, specify “national” eco-labels. That said, these agreements recognize the need for the protection of essential security interests and, as a result, some contract categories are excluded. These exceptions enable departments, like Environment Canada, to be more prescriptive for contracts in areas such as research and development, utilities, and weather reporting and observation services.¹⁰

Defining “Greener” Goods and Services

Given these challenges, departments require simple, easy-to-use tools to inform and guide employee procurement decisions. Managers responsible for the development of simple tools face challenges in determining what constitutes a greener product or service. This process can often be both intimidating and value-laden as it is difficult to weigh environmental merits across different product categories and attributes. For example, how does one evaluate the merits of wool versus synthetic carpeting made from recycled pop bottles; or the merits of processes which emphasize toxic reduction versus energy efficiency? In an effort to select greener goods and services, departments are trying to employ a multi-faceted approach which includes the use of national eco-labeling programs, the incorporation of environmental specifications in government tenders, and life-cycle analysis. Greener procurement strategies have relied most heavily on national eco-labeling programs, with the most influential being Canada’s Environmental Choice Program (ECP).

Environment Canada established the ECP in 1988 to guide consumers in making environmentally sound purchasing decisions and to encourage the commercial development of less harmful products. The ECP, currently managed by TerraChoice

⁹ Treasury Board of Canada Secretariat, *Contracting Policy Notice 1996-6: Aboriginal Business Procurement Policy Performance Objectives*.

¹⁰ “Annex 1001.1b-1” of the *North American Free Trade Agreement* between the Government of Canada, the United Mexican States and the United States of America, 1992.

Environmental Services Inc., was the second such program to be developed in the world. The ECP awards the official Environmental Choice logo certification mark to products or services that meet environmental criteria established in cooperation with industry, government, and public interest groups. Certification may be awarded for those products that have been reused, or are made in a way that improves energy efficiency, reduces hazardous by-products, or uses recycled materials. In some ECP guidelines, supplier production processes are considered for goods such as paints, printers, adhesives, and engine coolants. While the ECP currently does not require companies to have an operating EMS or to carry out environmental audits, its certification process recognizes companies that are ISO 14004 certified.

The ECP enjoys international credibility due to a comprehensive third-party certification process that includes a review of product and process information; an examination of quality assurance/control measures; and an audit of the company's facilities and processes relevant to the product being certified. ECP has guidelines for over 50 products and services. In addition, there are currently over 230 companies licensed to use the EcoLogo, and approximately 2,800 household, commercial, and industrial products certified by the ECP.¹¹

Use of eco-labeling programs, such as the ECP, is an effective means to identify greener procurement options. However, these programs alone are not sufficient to inform government decision-makers because only a small portion of products and services required by the federal government have obtained certification. This is due to many factors. First, these programs typically focus on commonly-purchased goods such as office products and household items, and not the unique or highly specific products often required by the federal government. Second, rapid technological change results in the introduction of new products or goods that have not gone through the certification process. Third, low Canadian demand for greener goods results in the fact that the EcoLogo is not broadly promoted or communicated by Canadian companies in their major marketing efforts.¹² Fourth, certification and licensing costs may limit participation by those firms, particularly small and medium-sized enterprises, that do not anticipate sufficient economic benefits through these programs. Industry reluctance to market environmental attributes and the low market demand are mutually reinforcing, with the end result being a limited number of greener goods and services that are advertised and available in the Canadian marketplace.

In an effort to make incremental improvements to procurement practices, federal departments, such as Environment Canada, are broadening their definition of what constitutes a greener product and are starting to include notions such as greener production processes. This provides a larger range of greener goods to choose from and also reinforces industry efforts to apply more comprehensive approaches such as environmental design, environmental management systems, and life-cycle analysis.

A national electronic greener procurement database: *EcoNexusTM – The Green Procurement Directory* is in the testing stage. It was created by the Centre for Indigenous Environmental Resources with funding from Public Works and Government Services

¹¹ *TerraChoice Environmental Services Inc. Corporate Profile*. October 7, 2000.

¹² *Going for Green: Meeting Foreign Demand for Environmentally Preferable Products and Services through Federal Procurement, Background*. National Round Table on the Environment and the Economy. 1997.

Canada (PWGSC), another federal department. This database is based on a more comprehensive definition of greener goods and services. The evaluation and selection criteria include concepts related to the overall environmental management of a firm, including its use of natural resources, new or modified production processes, and the environmental performance of suppliers. Environment Canada is also seeking to improve its procurement practices by buying greener goods and services where certified “green” options are not available. To this end, it exchanges greener procurement tools and criteria, such as greener product lists, with other federal departments, provincial governments, and other countries. While these tools may not represent perfect solutions, they enable Environment Canada to benefit from the work of others and, in turn, make incremental improvements to purchasing practices.

While some progress is being made to better identify greener goods and services, more work is required nationally and internationally so that consumers have the necessary information to confidently evaluate and select greener goods across different product attributes and categories.

ENVIRONMENT CANADA’S APPROACH TO GREENER PROCUREMENT

Environment Canada tabled its first sustainable development strategy in Parliament in April of 1997 in support of the Government of Canada’s commitment to the environment and sustainable development. It is presently drafting its second strategy, which is due in December of 2000. This strategy is an important step to comprehensively assess the economic, environmental, and social impacts of its policies, programs and operations. Environment Canada’s current work to design and implement an environmental management system (EMS) represents the operational component of its sustainable development strategy. An EMS will enable Environment Canada to strategically manage all of its environmental risks and opportunities, including greener procurement.

Environment Canada has employed a pragmatic, results-oriented approach to increase the quantity of greener goods and services it purchased. Ministerial approval of *EC Green Procurement Policy* in 1994 (updated in 1999) was an important first step toward the goal of greener procurement within Environment Canada. The Policy provides direction to guide employee purchasing decisions, while at the same time leaving room for flexibility in decision-making. This policy directs employees to:

- Consider the “cradle-to-grave” impact of goods and services;
- Use EcoLogo certified products wherever feasible;
- Adopt greener criteria in purchasing decisions (i.e., select recycled or energy-efficient products); and
- Include environmental terms and conditions within the selection criteria of Environment Canada contracts.

Effective training programs and information tools are essential to increase employee awareness so that this policy becomes a daily reality for departmental personnel. Environment Canada has developed several useful greener procurement tools to assist employees in making better purchasing decisions. Environment Canada

developed greener procurement databases in most regional Environment Canada offices and at headquarters, identifying greener product options for items such as computers, office furniture, paper products, which are most commonly purchased by the Department.

To promote awareness and use of these tools, Environment Canada developed a “green suite” of computer-based training courses. The Department also designed a half-day Greener Procurement Workshop, which focuses on concrete ways to encourage greener procurement by making small changes to employee purchasing practices and applying practical procurement tools. It also introduces social marketing concepts by eliciting employee commitments to greener procurement.

These efforts have emphasized a pragmatic, small-steps approach that encourages employees to take responsibility for their procurement decisions. However, as the Department implements its EMS, it is beginning to take a more strategic approach to the management of its internal operations and greener procurement efforts. The Department’s Operational Environment Policy, approved in 1997, identifies greener procurement as a key component of Environment Canada’s environmental strategy. This view was reinforced in the findings of a department-wide initial environmental review (IER), which identified greener procurement as a priority environmental aspect for the Department. As a result, Environment Canada’s National EMS Team established a departmental procurement working group in 1997. This group is responsible for conducting a “mini-EMS” for greener procurement issues by systematically applying the following EMS principles:

- Securing departmental commitment;
- Developing concrete action plans;
- Implementing action plans and ensuring departmental capacity to do so;
- Measuring and evaluating progress; and
- Continuously reviewing and improving EC’s performance.

An important next step will be to develop better means to track greener purchasing within Environment Canada and to create progressive greener procurement targets that can be effectively measured and monitored. The establishment of a working group represents a positive step forward toward a more strategic and coordinated approach in managing EC’s greener procurement efforts.

Other initiatives include a “new officing strategy” which promotes the 3 Rs in the area of office renovations projects, as well as the promotion of the Hotel Eco-efficiency rating program. The Department plans to measure its performance in the procurement of greener goods and services by modifying its Departmental Financial/Material Management automated system to record such purchases. This will enable Environment Canada to set measurable targets and monitor its performance progress. Environment Canada also plans to add greener procurement criteria in its selection criteria for awarding contracts for goods and services over CDN\$25,000.

Targeted Greener Procurement Strategies

In order to achieve the greatest results in the most efficient manner, federal government departments, including Environment Canada, are working in partnership with non-governmental organizations and industry to develop practical options. This work has typically focused on those products and services that have significant

environmental and economic impacts, and on those transactions that are carried out by a relatively small number of employees.

Vehicles

Procurement and management of the federal fleet represents an important opportunity area for greener procurement. The passage of *The Alternative Fuels Act* by Parliament in 1995 demonstrates the Government of Canada's commitment to environmental leadership by reducing a broad range of air pollutants through the increased use of alternatively-fueled vehicles. This Act required that 50 percent of Government of Canada's eligible new vehicle purchases in fiscal year 1997/98 operate using alternative fuels where cost-effective and feasible. This requirement rose to 60 percent in 1998/99 and 75 percent in 1999/2000.

In addition to the environmental benefits, it is thought by some that this Act may support an increase in the demand for alternatively-fueled vehicles in Canada. However, it is important to recognize that the Government of Canada's total fleet of 25,000 vehicles represents less than one percent of the on-road vehicles in use in Canada. Federal departments, even as a collective, may not have sufficient buying power to impact on the development of an alternative fuel supply infrastructure given the geographic dispersion of federal operations. *The Alternative Fuels Act* underlines the federal government's commitment to environmental leadership through the implementation of a greener procurement strategy for its fleet to reduce its environmental impact.

All federal departments are working towards compliance with this Act as part of their overall environmental management programs, and are looking toward automobile and alternative fuel suppliers to design creative technologies that will facilitate compliance. As part of its broader fleet strategy, Environment Canada's Minister, in 1995, committed the Department to reduce its fleet size by 30 percent over three years; to increase its use of alternative fuels (such as propane and natural gas); to increase its use of car pooling and leasing; and to use recycled motor oils and coolants. A departmental fleet policy was approved by senior management and a comprehensive training program was implemented to educate drivers on the benefits of environmentally-sound driving, maintenance, and procurement practices. To share best practices and implement regional action plans, a departmental ground transportation working group, composed of fleet managers, was formed in 1997.

Environment Canada has reduced its fleet from 711 to 555 vehicles to date. Furthermore, approximately 60 vehicles have been converted to use alternative fuels. However, these conversions have not yet led to the environmental and economic benefits originally forecast. Major financial, technical, and emission issues have been identified: conversions have resulted in some unanticipated operating problems; have proven to be costly; and have occasionally resulted in increased air emissions. This experience is an important reminder that leading-edge greener technologies may not always live up to supplier claims. Given this reality, it is felt that the long-term success of EC's efforts to comply with the Act will depend, in part, on a reduced reliance on conversion technologies and the development of greener options by original equipment manufacturers.

Building management

Building management represents an important greener procurement opportunity where a coordinated federal program can result in significant environmental and economic savings. The Federal Buildings Initiative (FBI), designed by the federal department of Natural Resources Canada (NRCan) in 1991, helps managers to take advantage of long-term cost savings of greener building operations. The FBI involves an innovative partnership between the public and private sector to improve the energy efficiency in federal-owned facilities without financial investment or risk on the part of the Government of Canada. The FBI program uses private capital, resulting from longer-term cost savings, to finance building energy, water, and air system retrofits.

Environment Canada issued the first energy performance contract awarded under the FBI in 1993 to retrofit the Canada Centre for Inland Waters in Burlington. The FBI retrofit program included upgrades to the building electrical and mechanical systems; targeted reductions in water consumption; and the installation of a new electricity and heating production system.

These initiatives have resulted in an annual reduction of carbon dioxide emissions by 12,700 metric tons and yearly savings of CDN\$ 930,000 after a 7.2 year pay back period. Following the expiration of the contract, these savings will be retained by the Department. Opportunities to implement the FBI program for other Environment Canada sites across the country have also been undertaken.

One such opportunity was Place Vincent Massey. It was selected as the site to launch the FBI model in a leased building, the first project of its kind initiated by the federal government. The project was initially proposed by Environment Canada to NRCan, Public Works and Government Services Canada (PWGSC) and the landlord which resulted in a “buy-in” from all parties involved. The potential for energy savings is estimated at CDN\$ 150,000 annually. The FBI is considered to be one of the most successful environmental programs for federal operations as it has resulted in significant environmental and financial savings, and supports Canada’s environmental industry.

Work is also underway to promote environmental stewardship and greener procurement in the management of office accommodations. In 1995, Environment Canada and PWGSC created *The Environmentally Responsible Construction and Renovation Handbook*. The Handbook is a compilation of practical information to help federal property and facility managers address two common environmental concerns: solid waste reduction and the selection of greener building materials and products.

To build on this work, Environment Canada and PWGSC are now developing a more comprehensive set of environmentally sensitive accommodation standards called *The Green Office Building Plan*. Its objective is to ensure that building selection and design, construction and demolition, electrical and mechanical systems, furnishing materials, and facility management strategies incorporate measures to maximize energy and water conservation, improve indoor environmental quality (i.e. indoor air, lighting), and implement sound waste management principles. Because *The Green Office Building Plan* is intended to be integrated into existing procurement processes on a federal public service-wide basis, it is expected to have many positive environmental impacts and should also help to increase the demand for greener accommodation goods, services, and processes.

To pilot *The Green Office Building Plan*, Environment Canada initiated the *New Officing Strategies Project* for an Environment Canada office floor. This project

incorporates new planning and design concepts such as improved functionality, team work settings, and non-territorial meeting rooms. As an important part of this demonstration project, environmental criteria were specified in all facets of the endeavor ranging from product selection to construction and demolition waste diversion plans. To this end, the project employed life-cycle (cradle to grave) concepts, which included considerations on how to minimize the amount of waste entering landfills. For example, existing components were salvaged, carpet was recycled, and drywall was installed between wall panels to increase sound insulation.

As part of this project, Environment Canada worked in partnership with PWGSC and industry leaders to establish and apply a remanufactured standard for systems-furniture which is the first of its kind within the federal public service. Through remanufacturing, previously used panels and furniture components are refurbished to “as new” quality. The standard specified a minimum 60 percent remanufacturing requirement for panels and systems furniture used in the project. In addition, non-refurbished products featured environmental attributes, such as recycled content in carpet, steel, sound insulating material, and particle board.

In September of 1997, this Environment Canada office floor was the first in Canada to be ECP certified because of the environmental considerations incorporated in its design, construction, and day-to-day operations. Environment Canada will continue to work with PWGSC and industry partners to develop more precise environmental specifications for future projects. For example, minimum quantities of recycled material, such as steel, will be identified for use in furniture components.

In Churchill, Manitoba, the full life cycle of a building was taken into account in designing a building for use in the Aerological network. There are approximately 35–40 Aerological sites located in various locations across the country, most are in remote northern locations. As program requirements change, the sites may be closed and/or relocated. The original building design dates from the early 1950s and was basically a large two story box. It was built to accommodate the program at the time, which was large, bulky, and required 2–4 people to operate. The equipment and human resource requirements have changed considerably over the years, and a prototype operations building was developed and is being tested. It is highly efficient and completely self-contained. It is estimated the energy savings alone will be in the area of 80 percent, which is significant considering these buildings are required in the Arctic where energy is usually provided by diesel generators. They are modularized, which means that should the program require a given station to be closed/moved, it can be relocated with minimal disruption to the surrounding terrain.

Energy

Concrete steps are also being taken to create markets for greener energy through first-purchase strategies. As part of its sustainable development strategy, Environment Canada has committed to purchase 15–20 percent of its building energy from renewable sources by the year 2010, and to commence greener power pilot projects in fiscal year 1998/99.¹³ To realize this commitment, Environment Canada, along with Natural Resources Canada (NRCan), signed a greener energy purchasing agreement with an Alberta energy company. In it, the two federal departments agreed to purchase up to a

¹³ *Environment Canada's Sustainable Development Strategy*, April 1997, p. 16.

total of 13,000 megawatt hours of greener power per year for their Alberta facilities over the next 10 years. This agreement demonstrates true environmental leadership as both Environment Canada and NRCAN will be paying a premium for the wind power generated by this energy company. It is thought that this agreement could, in turn, stimulate interest by energy companies of other provinces to develop greener power alternatives. Currently there is an agreement in place to provide 2 million kilowatt-hours of electricity generated from 2 wind turbines for the next 10 years.

Hotels

Environment Canada is also working in cooperation with the Hotel Association of Canada, TerraChoice Environmental services, and other government departments to develop an independent *Hotel Eco-efficiency Rating Program* which will be the first of its kind in the world. This work reinforces and supplements voluntary efforts already undertaken by the lodging industry to adopt best practices in environmental management. In this program, hotels are independently evaluated on their corporate environmental management practices in areas such as guest and food services, meeting facilities, and grounds maintenance. As of April 30, 2000, one hundred and thirty (130) hotels had been Green Leaf certified.

To encourage federal use of the one-to-five *Green Leaf* rating system, the hotel ratings are expected to be incorporated into the 1999 Federal Government Directory for Government Employees. Environment Canada will direct its employees to use this rating system when selecting hotels for accommodation and conference purposes. Work is also underway to complete a pilot with three other countries to extend these efforts internationally.

Telephones

In a direct effort to foster life-cycle management and demonstrate that eco-efficiency can improve competitiveness over the complete product life cycle, Environment Canada entered into a partnership with Nortel, a Canadian telecommunications company. In 1997, Nortel and Environment Canada announced a CDN\$ 1.2 million research project to explore environmentally preferable design technologies. The project explored sustainable telephone design and production practices that decrease environmental impacts and provide a competitive edge in the global economy. Environment Canada contributed CDN\$ 250,000 to sponsor a life cycle assessment to identify and verify potential environmental improvements. In this project, Nortel used environmental design standards and practices to explore "concept" telephones with leading environmental features such as lead-free interconnection technology, fewer parts, and a reduction in the number of materials for ease of recycling. This initiative represents the first time that the Government of Canada and private industry worked together to examine an entire product life-cycle. The final report detailing the work is expected shortly and will be used to promote to industry the business and environmental value of this approach to product design.

Photocopiers and paper products

Environment Canada initiated the creation of an inter-departmental working group composed of departments operating within a federal building complex of 6,000 employees to leverage the building's total spending power in photocopier purchases. A

contract was issued for the approximately 200 photocopiers required in the complex. This coordinated approach significantly improved the price and service levels received. In addition, it enabled departments to insist on certain environmental criteria, such as default double-sided copying, machine components that are recycled and recyclable, and packaging, such as toner bottles, which are taken back by the supplier.

To increase the use of greener paper procurement, this same interdepartmental working group issued a second contract to ensure these photocopiers would be supplied with EcoLogo certified paper (50% recycled, 10% post consumer fibres) and not virgin copy paper. Environment Canada is also working with a stationary supplier located in the complex to increase the number and visibility of greener products it offers. These efforts should help to increase the amount of greener stationary products federal employees purchase within the complex.

Government Partnerships

Climate Change is another important procurement issue. Canada has committed to reducing its greenhouse gas emissions by six percent below 1990 levels by the year 2010. A National Implementation Strategy has been launched to ensure that all sectors of the economy, including the federal government, contribute to achieving the targets. Following planning and consultations, a House in Order Strategy, to reduce GHG emissions from federal government operations is being finalized. As part of this strategy, a House in Order Greenhouse Gas Responsible Procurement Task Group has been formed and is identifying opportunities to not only reduce carbon dioxide emissions, but to show leadership by the federal government in purchasing products that are energy efficient.

As part of its broader policy agenda, Environment Canada is also developing effective partnerships with different orders of government to advance greener procurement thinking and practices both nationally and internationally. Within Canada, Environment Canada has worked through different venues to encourage an effective dialogue. In November of 1996, Environment Canada and PWGSC sponsored a two-day *National Procurement Workshop*. Federal, provincial, and municipal representatives, as well as participants from private sector organizations and suppliers, came together to better understand different perspectives in accelerating progress in greener government purchasing.

In addition, a Federal Green Procurement Task Force was created by the National Round Table for the Environment and the Economy (NRTEE) in 1994 to assist federal departments and agencies in greening their procurement practices. This group of industry, not-for-profit, and governmental participants, including Environment Canada, has been actively working to advance its mandate. In 1996, the Task Force commissioned a report, entitled *Development of Criteria for Green Procurement: Summary Report*, which outlined the state of green procurement for private and public sectors in Canada and identified possible criteria that could be used to increase greener procurement. One of the study's key findings was that gains in green procurement can only be made when an organization has a clear, public commitment from senior managers supported by adequate resources and implementation strategies.

Environment Canada chairs the green procurement Committee of the Material Management Institute, a national, non-profit organization open to everyone with an interest in the areas of public sector purchasing, contracting, inventory and asset management, warehousing, supply management or any other aspect of the life-cycle

management of publicly owned material. This new committee is an ideal vehicle for sharing best practices, exchanging and disseminating information regarding greener procurement. Environment Canada is also hosting a Greener Procurement Conference to further federal, provincial and municipal governments and private sector initiatives in the greener procurement area. The Material Management Institute and the federal government are working together to develop a greener procurement component for the certification program for procurement agents.

Environment Canada supported Public Works and Government Services Canada on the development of a national electronic greener procurement database EcoNexusTM and an environmentally responsible Construction and Renovation Handbook, a compilation of practical information to help government departments in the selection of greener building products and activities.

Environment Canada continues to be an active member of the Federal Committee on Environmental Management Systems. A subgroup of this committee developed an Environmental Awareness and Training Program for federal managers and employees. This program includes awareness presentations on environmental management targeted at senior managers, a Web-based learning tool to increase employee awareness and motivate action, and support tools for training staff.

A second study, *Going For Green: Meeting Foreign Demand for Environmentally Preferable Products and Services through Federal Procurement*, was completed in 1997 and was followed by an expert stakeholder workshop to discuss its findings. The study identified trends for greener products in some of Canada's major trading markets, and the role of the Government of Canada as a public purchaser. Most recently, in January of 1998, the NRTEE published a *Statement on Federal Green Procurement* which included a series of conclusions and recommendations to inform and guide the procurement efforts of federal government decision-makers.

Environment Canada is also building closer working relationships with Member countries of the Organization for Economic Co-operation and Development (OECD), the Asia Pacific Economic Co-operation (APEC) forum, and the United Nations Environment Programme (UNEP).

Environment Canada chaired the working group which led to the 1996 passage by OECD Ministers of a Council Recommendation on *Improving the Environmental Performance of Government*. This document was intended to encourage member country governments to reduce the environmental impacts of their own operations and decision-making processes. As a follow-up to this resolution, several OECD meetings have been held to encourage member-country governments to share practical information and best practices. To facilitate the exchange of information, Environment Canada also initiated the creation of a Greening Government web site for the OECD. The department has also been an active participant in the OECD Green Goods conferences on greener public purchasing and its associated working group. Environment Canada is also interested in the development of common performance indicators and issues of improving environmental performance of governments.

Work is also underway, through workshops and meetings, to collaborate with Asia-Pacific countries on greening government, greener procurement practices, and sustainable cities. Examples include the "Canada-China Workshop on Greening Government and Environmental Management Systems" which is tentatively scheduled for September of 2000 and an Environment Canada sponsored International Workshop on

“Creating Sustainable Cities through Urban Environmental Management” held in Bangkok, Thailand in March of 2000. At that workshop, the department field-tested the pilot “City Solutions Network”, a web based knowledge management tool for urban decision makers. The City Solutions Network will contain information on the topics of green procurement and e-commerce.

Environment Canada also co-developed and co-facilitated a United Nations Environment Program sponsored pilot workshop on the “Application of Environmental Management Systems to Urban Management” which was held in Hungary in July of 1999. The successful Hungary pilot has led to the organization of workshops scheduled for Brazil in June of 2000 and South East Asia in November of 2000 with an additional workshop planned for the Caribbean and Central America. This training will become part of United Nations Environment Program’s core courses.

These partnerships and meetings are beneficial because government at different levels learn from the experiences of others. By exchanging valuable tools and best practices, governments can save time and money by minimizing the duplication of effort. Moreover, such exchanges can also help to gradually raise the overall bar of performance across governments.

LESSONS LEARNED – KEY COMPONENTS OF EFFECTIVE GREENER PROCUREMENT STRATEGIES

Over the years, Environment Canada has learned many important lessons through partnerships with other governments and through its own experience in implementing a greener procurement strategy. In order to effectively advance greener procurement within government organizations, it is useful to apply the following change management principles:

- *Secure a champion from senior levels* to establish organizational commitment, drive the change process, and achieve real success. Leadership from senior managers is essential to send the necessary signal that greener procurement is a real priority;
- *Encourage a culture of environmental awareness* by emphasizing incremental, pragmatic changes to the day-to-day decision-making and responsibilities of all managers and employees;
- *Involve key employees* in the design and implementation of the greener procurement strategy. Employee participation will increase buy-in and help to ensure the strategy is designed to meet the organization’s unique characteristics and needs;
- *Simplify the environmental decision-making process* by integrating tools that are easy to understand and use into the organization’s procurement processes. Employees are less likely to use complicated tools when dealing with time pressures, competing purchasing priorities, and the intimidation factor of selecting greener goods and services;
- *Define clear environmental accountabilities* throughout all managerial and employee levels to strengthen commitment, stimulate action, and facilitate the examination of past greener procurement efforts;

- *Limit the scope* of initial efforts by reaching for “low-hanging fruit”: those areas which have the greatest opportunity for positive environmental change in the short-term. For example, organizations could develop specific strategies for high-volume goods or could focus training efforts on those employees who make the largest proportion of procurement decisions;
- *Establish realistic, but challenging environmental targets* to focus efforts, maintain momentum, and encourage a culture of continuous improvement;
- *Recognize innovative initiatives and reward successes* to foster creativity and risk-taking within the organization; and
- *Foster partnerships* with other governments, non-governmental organizations, and industry leaders to increase practical knowledge, share best practices, minimize duplication of effort, and initiate joint greener purchasing initiatives.

Additional Opportunities to Advance Greener Government Purchasing

Although some positive steps have been taken, there is a great deal of additional work that is required to leverage the Government of Canada’s purchasing power and increase the quantity of greener goods and services that departments buy. Some important steps that should be taken over the next years include:

- Creating a Greener Purchasing Forum of Canadian governments with appropriate private sector involvement to share information, leverage collective purchasing power and, ultimately, develop common procurement standards based on best practices.¹⁴ These standards could then be used by all levels of government to provide suppliers with greater certainty and consistency in developing greener products and services;
- Instituting, as part of federal government procurement processes, the requirement that potential suppliers fully describe the positive environmental attributes of their products, processes, services, and environmental management systems;¹⁵
- Fostering greater collaboration and exchange of greener procurement tools across governments, both nationally and internationally. In Canada, this could be encouraged through the creation of a national web site;
- Fostering greater collaboration with other federal departments to better leverage federal government purchasing power and to develop shared performance indicators in assessing the efficacy of governmental procurement strategies;
- Developing additional partnerships with industry and non-governmental organizations to design and develop greener goods and services; and
- Capitalizing on future technological advances in electronic commerce over the longer-term. Greener criteria could then be seamlessly embedded into procurement software to make greener purchasing a default option and to facilitate the tracking of greener purchases for government departments.

¹⁴ *National Workshop on Greener Government Purchasing. Workshop Proceedings.* Government of Canada. November 1996

¹⁵ *National Round Table on the Environment and the Economy: Statement on Federal Green Procurement.* January 1998.

CONCLUSION

The government of Canada's departments and agencies are striving to better incorporate the environment into the management of its policies, programs, and operations. As part of this larger effort, progress has been achieved in promoting and implementing greener government purchasing strategies within federal departments. Environment Canada has been able to realize many important successes by fostering effective partnerships and emphasizing a pragmatic, small-steps approach to achieve concrete results. However, more work can and should be done. As a result, Environment Canada remains committed to continue working both internally and with external partners to advance greener procurement as part of its overall environmental mandate.

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LIST OF ACRONYMS

APEC	Asia-Pacific Economic Cooperation Forum
Environment Canada	Environment Canada
EMS	environmental management system
ECP	Environmental Choice Program
FBI	Federal Buildings Initiative
IER	initial environmental review
ISO	International Organisation for Standardisation
NAFTA	North American Free Trade Agreement
NRCan	Natural Resources Canada
NRTEE	National Round Table on the Environment and the Economy
OECD	Organization for Economic Co-operation and Development
PSAB	Procurement Strategy for Aboriginal Business
PWGSC	Public Works and Government Services Canada