The Purpose and Impacts of Sustainable Procurement Policies

University of Toronto

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Executive Summary

The 299Y Research Opportunity Program is a program offered by the Faculty of Arts and Science at the University of Toronto to second-year students of the faculty. It allows the student to become involved in original research, related to the project of a professor. The student receives a 299Y course credit at the end of the course, while the professor receives the help of specifically selected students. The purpose of this summer 299Y course directed by the Sustainability Office at the University of Toronto is to identify the purposes of sustainable procurement policies at various universities and colleges, highlight the barriers and benefits of such policies, and discuss recommendations to creating a sustainable procurement policy at the University of Toronto.

The research began with a literature review regarding recent discussions of the topic area. This information proved to be insufficient in fulfilling the purposes of this report, and so, website review and interviews were conducted with selected educational institutions. It was found that procurement was de-centralized at most institutions and that compliance with the sustainable procurement policy was mostly voluntary. The major reasons for creating the policy were an existing commitment to sustainability, informal sustainable practices that were already in place, as well as the strong support from the students.

The main purpose of the sustainable procurement policies was not limited only to sustainable considerations, but also to economic considerations, due to the definition of procurement, which is to purchase in a cost effective manner. Energy and resource conservation was the most common approach taken to fulfill the purpose of the policy, while long service life was the least common approach taken.

The major barriers to creating a sustainable procurement policy were the high initial cost of sustainable products, resistance from other parties (both inside and outside the institution), as well as disagreements regarding content of the policy. The implementation process also required time to deal with the change. The major benefit from the sustainable procurement policy was being able to express one's commitment to sustainability.

The recommendations to the Sustainability Office at the University of Toronto are as follows:

1. Discussion meetings prior to creation should include the proper people, both inside and outside of the University.
2. Policy content should not only include the approaches that would be taken to reach the goals of the policy, but also the specific products that these approaches would target.
3. Acquire proper resources and people to implement and enforce the policy.

1. Introduction

Sustainability has become a growing issue in recent years, due to climate change and its impact on human society. Institutions, as well as individuals, have begun to adjust behaviours towards sustainable preferences. On the level of an educational institution, namely the University of Michigan, Shriberg (2000) states that reasons for sustainable behaviour include morality and intergenerational equity (do not borrow from future generations), survival (of the ecosystem), and organizational benefits (decreased economic and social liability). An important aspect that has been moving towards sustainable behaviour is the purchasing of goods. According to Thomson et al (2008), the growing imperative of tackling climate change should make politicians more supportive of sustainable procurement. Also looking at the level of an educational institution, Rappaport (2008) explains the reasons why a university should begin the path towards sustainable procurement. These include lower water and energy bills, due to the procurement of water-efficient and/or energy-efficient appliances, and the attraction of media attention. Shriberg (2000) argues that colleges and universities represent the cutting edge of knowledge, and thus, should be forward-thinking institutions.

The Sustainability Office at the University of Toronto (2008) was established to reduce the environmental impacts of campus operations by connecting sustainability research with practices at the University. One such operation is the purchasing of products for the University. In the University of Toronto's (2008) fiscal year ending of April 30, 2008, $193.7 million worth of materials and supplies were purchased. Thus, a change towards sustainable procurement at the University can have great impact on the environment. This report serves to discuss sustainable procurement policies and what changes could be made to purchasing practices at the University of Toronto, in order to move towards more sustainable behaviour. The following research questions were posed:

1. What is sustainable procurement?
2. What do sustainable procurement policies at educational institutions aim to achieve?
3. What approaches were taken to achieve these goals?
4. What are the specific areas that these approaches targeted?
5. What are the barriers and benefits in creating a sustainable procurement policy?

This final report describes the methods used in conducting research, including how the institutions and literature were selected, and then discusses the findings from the literature review, the websites of selected educational institutions and from interviews with individuals from selected educational institutions. Finally, this report provides recommendations to the Sustainability Office regarding how the University of Toronto can change procurement practices towards more sustainable behaviour.

2. Methodology

The research was conducted in two stages: the first stage was to investigate the recent discussion of the research topic, and if insufficient information was available to answer the research

questions, then the second stage would involve finding appropriate institutions to contact, regarding their sustainable procurement policies.

2.1 Methodology of the First Stage – Literature Review

The first stage consisted of gathering information on the research area through the review of relevant literature. The search for articles began on the University of Toronto Libraries website (http://content.library.utoronto.ca/). To choose an appropriate database for the search, the topic area of "environment" was chosen under the "articles" tab. According to the website, the best database for this topic area was the Scholars Portal Search. From this database, the following keywords were used to conduct the search: "environment" or "sustainability"; "environmental" or "green" or "sustainable"; "purchasing" or "procurement"; "policy"; "university" or "college" or "institution". The keywords were linked with the "and" operator, while the various synonyms were linked with the "or" operator. The results were limited to peer-reviewed journals.

Most of the articles found were irrelevant to this research project, since they did not contain all the keywords as listed above. For example, some articles discussed sustainability, but not in regards to procurement policies or in regards to an educational institution, such as a university or a college. The articles that were selected to be most relevant included the discussion of sustainable procurement policies at various institutions, including universities, businesses and the government. It would have been best to narrow down on the policies of only universities or educational institutions, since the structure of these institutions would most closely resemble that of the University of Toronto; however, very few articles were able to meet this intended requirement, and so, articles that discussed other institutions were also included. In total, 4 articles were included. However, it was also discovered that the literature review alone did not completely answer all the research questions, especially regarding the experiences faced upon creating the policy and upon implementation. Also, the literature review did not focus on educational institutions, and as a result, was not as relevant to the University of Toronto.

In particular, to answer the first research question, which was to define sustainable procurement, websites of governments and organizations were also looked at. The two government websites that were chosen were that of Canada and the United States, since the University of Toronto resides in Canada and the United States is closely related country in North America. The organization chosen was the Green Purchasing Network (GPN), which is a recognized organization that promotes the concepts and practices of green purchasing. However, the other research questions still could not be fully answered, hence a second stage was conducted, in which several educational institutions were selected for website research and later interviewed.

2.2 Methodology of the Second Stage – Institutional Review

The goal of the second stage was to fill in the gaps that the first stage had left, in order to answer all the research questions as fully as possible. In the second stage, to analyze the creation of sustainable procurement policies, a list of institutions was drawn from Grist Magazine's 15

Green Colleges and Universities, as well as the list of post-secondary procurement/purchasing policies compiled by the International Institute for Sustainable Development (IISD). Grist Magazine's list involved universities that have been ranked highly for sustainability, while IISD's list focused on procurement/purchasing policies. With the use of both these lists, the pool of institutions examined was expanded. A greater number of institutions allowed for a greater variety of procurement policies, since different institutions function in different manners. Macleans' evaluations of academic excellence and the Globe and Mail's University Report Card did not base its rankings on sustainable aspects, and thus were not used. Furthermore, both the IISD list and Grist Magazine's list not only included universities, but also colleges, and thus allowed for the analysis of different types of educational institutions. The educational institutions included in Grist's list were:

- College of the Atlantic
- Middlebury College
- EARTH University
- The Evergreen State College
- Oberlin College
- Harvard University
- University of British Columbia
- California State University, Chico
- Tufts University
- Leeds University
- Green Mountain College
- Yale University
- Aquinas College
- Glasgow University
- University of Maryland

The IISD is a policy research institute dedicated to promoting change towards sustainable development. Its list of sustainable procurement/purchasing policies included the following post-secondary institutions:

- University of Winnipeg
- University of Alberta
- University of South Carolina
- University of Northumbria
- University of Buffalo
- Trent University

Procurement policies of these universities were searched on their websites, based on the keywords: "green" or "sustainable" or "environmental"; "purchasing" or "procurement"; "policy"; "environment" or "sustainability". These keywords were entered into the institution's search engine to find the webpage containing the information needed to answer the research

questions. A list of procurement policies from the various institutions was compiled and analyzed. Then, the policies that required further exploration were identified.

2.2.1 Methodology of the Second Stage – Interviews

The initial research conducted on the institutions' websites revealed that the amount of relevant information available fell into three main categories.

The first category included institutions that only had information regarding what their sustainable procurement policies are, but not how these policies were created. This category includes: Yale University, University of Winnipeg, University of Alberta, University of South Carolina, University of Northumbria, University of Buffalo and Trent University. Oberlin College was the only educational institution that provided additional information on the creation of their procurement policy on their website, rather than just the policy contents. However, Oberlin College was also added to the first category to find out further details about the creation process of their procurement policy.

The second category included the institutions that mentioned the existence of sustainable procurement policies on their websites, but for which no further information was provided. These institutions include: College of the Atlantic, Middlebury College, Evergreen State College, University of British Columbia and Leeds University.

The third category included the institutions that did not even mention the existence of any sustainable procurement policies on their websites. These institutions included: EARTH University, Harvard University, California State University (Chico), Tufts University, Green Mountain College, Aquinas College, Glasgow University and University of Maryland (see Appendix A for details on the presence/absence of a sustainable procurement policy at these institutions).

E-mails were first sent to institutions that fell under the third category, to find out whether sustainable procurement policies existed at their institutions. If none existed, no further contact with the institution was made. If a policy did exist, then an interview request was sent via e-mail. Interview requests were also sent to institutions of the first and second category. A consent form (see Appendix B) was sent, along with a list of questions (see Appendix C) for the interviewee.

The results of the interview requests sent via e-mail are illustrated in Appendix D. As mentioned earlier, the third category consisted of institutions that did not mention the existence of a sustainable procurement policy. It was found that for most institutions, this was because there was no policy in place. The only exception was Glasgow University, for which an interview was conducted. However, most of the interviews done were with institutions of the first category, which described the contents of their policy on their respective websites, but did not discuss the creation process. Interviews were also conducted with two institutions from the second category, namely the College of the Atlantic and Evergreen State College.

The policy documents of several institutions can be found in Appendices E through K, which include Evergreen State College, Glasgow University, Oberlin College, Trent University, University of Alberta, University of British Columbia and University of Winnipeg respectively.

3. Findings

This section includes the findings from the websites and interviews from the educational institutions selected, as well as from the literature review, which alone did not provide enough information to answer the research questions posed.

3.1 Background Information

3.1.1 What is Sustainable Procurement?

The University of Toronto Procurement Services (2008) states that the purpose of procurement is to foster cost effective quality purchases of goods and services to University customers, by utilizing the expertise of all staff involved with purchasing throughout the University and by employing innovative methods in contract negotiations and group buying initiatives. The Government of Canada's Office of Greening Government Operations (2008) defines green procurement as the integration of environmental considerations – alongside quality, performance, price and availability – into the procurement process, from planning to final disposal; the US Environmental Protection Agency (2005) defines it as the practice of preventing waste and pollution by considering environmental impacts, along with price, performance, and other traditional selection factors, when making purchasing decisions. Both definitions involve the consideration of price and performance, and as a result, are not limited only to environmental considerations. The reason for this can be found by looking back at the purpose of procurement, which is to purchase in a cost effective manner. Therefore, the consideration of price and performance must also be included in the definition of sustainable procurement.

3.1.2 Organization of Procurement

Several institutions were interviewed for background information on how procurement is organized at their institution, because the organization of procurement can affect how the sustainable procurement policy was created and/or implemented at the institution. It would also affect the types of barriers and benefits encountered, as well as affect the institution's applicability to the University of Toronto, in terms of how similarly procurement is organized. All of the interviewed institutions had a separate procurement department, except the College of the Atlantic, which had a purchasing coordinator, as stated by the Craig Ten Broeck, the Consulting Director of Sustainability (personal communication, June 26, 2008). For most of the institutions, procurement was de-centralized, such that each department was responsible for their own purchasing. Brenda Naegel (personal communication, June 26, 2008), the Associate Director of Procurement at Yale University, stated that Yale University is de-centralized, while their procurement department provides guidance and training to the rest of the University. Some

departments are given more purchasing authority (e.g. dining services, library) than others. At Glasgow University, money is distributed to each faculty. Tom McAra (personal communication, June 20, 2008), the Head of Procurement, found that the operational aspect of procurement is de-centralized, while the strategic aspect is more centralized at Glasgow University. The procurement department at Oberlin College oversees the purchasing decisions made by the other departments; individual purchasing decisions are made at the departmental level, and then channelled through the procurement office for review and approval, as explained by Nathan Engstrom (personal communication, June 26, 2008), the Sustainability Coordinator. Thus, although there is a separate procurement department at the above institutions, the actual procurement decisions were not centralized in only this department.

A trend seen was that greater review was made for larger purchases. The College of the Atlantic works in a de-centralized manner, but also has a purchasing coordinator who provides guidance and reviews more expensive purchases, which are not as frequently made (personal communication, June 26, 2008). Kathleen Haskett (personal communication, July 2, 2008), the Purchasing and Contracts Manager at the Evergreen State College, states that the College has a centralized office, mainly for large purchases, and a decentralized procurement card program, which allows staff to make purchases with a limit of $1000. However, most purchases made through the card program are under $250. At the University of Winnipeg, approximately 80% of purchasing is centralized within the purchasing department. Mark Burch (personal communication, 25 June 2008), the Sustainability Director, states that the centralized procurement mainly deals with larger purchases, using tendering processes and purchase orders for better record-keeping. The remaining 20% is dispersed among approximately 100 people (department secretaries/assistants and staff with purchasing authority), and purchases are usually office and lab supplies. These purchases can only be tracked through credit card receipts. This is why the larger purchases are generally more centralized, to allow for better record-keeping and reviewing.

Compliance with the sustainable procurement policy was mostly voluntary at educational institutions. It was self-monitored at the College of the Atlantic, and the policy was mainly a guideline at Yale University. In theory, compliance to the policy was a rule at the University of Winnipeg; however, in practice, it was a guideline. This lack of enforcement was due to the lack of capacity, as well as its lower priority (personal communication, June 25, 2008). A similar case was found at Glasgow University, in which the policy was not monitored, due to the lack of resources, but also because the policy was already well-established (personal communication, June 26, 2008). And so, compliance became voluntary at most of these educational institutions.

At other institutions, the procurement office played a role in monitoring purchases. Although the policy was voluntary at Oberlin College, purchases had to be approved by the procurement office. More monitoring was done on larger purchases (personal communication, June 26, 2008). The procurement office at Evergreen State College went through purchasing requests and made suggestions for sustainable behaviour (personal communication, July 2, 2008). Thus, although

the policy was mostly voluntary, the procurement office helped the institution in choosing the sustainable alternative. Several key points can be noted, in regards to how procurement was organized at these institutions. Procurement was mostly de-centralized in these interviewed institutions, and greater review was made for expensive and/or infrequent purchases. Also, compliance with the sustainable procurement policy was mostly voluntary, due to the lack of resources.

3.1.3 Reasons for Creating the Policy

For the interviewed institutions, the most common reason for creating a sustainable policy was the institution's prior commitment to sustainability. The University of Winnipeg had already made a commitment to a sustainability management system, which covered procurement (personal communication, June 25, 2008), while Yale University updated their existing policy for sustainable behaviour, due to their previous commitment to lessen the impact on the environment (personal communication, June 26, 2008). The College of the Atlantic was always an environmental college, which offered only one degree – human ecology, and so, the College community was highly environmentally-based. The commitments of these institutions to sustainability pushed forward the creation of their sustainable procurement policies.

Another major reason for creating a sustainable procurement policy was that the idea of sustainable procurement was already nearing the top of the agenda, due to both the commitment to sustainability, as well as purchasing practices already in place. Glasgow University already had sustainable ways of performing purchasing functions, which were informally implemented. It was decided to formally crystallize these ideas into a policy (personal communication, June 20, 2008). Meanwhile, at Oberlin College, an anti-sweatshop policy was already in place, and so, the procurement department hired student interns to look into procurement policies and provide recommendations to the College. The anti-sweatshop committee evolved to become the broader purchasing committee (personal communication, June 26, 2008). The ideas of sustainable procurement had already been in these institutions' communities, and they made their next step to be the solidification of their ideas into a formal policy.

The final reason for creating a sustainable procurement policy came from the support of the students. The paper purchasing policy at Evergreen State College initially did not include sustainable preferences, due to the high price of recyclable products at the time it was implemented. The policy only read that the College would provide information on paper products, but did not state that it would choose the more sustainable product (personal communication, July 2, 2008). The modification towards sustainable behaviour was instigated by the students, with support from the procurement office. The policy was thus modified through their support. Students were also involved, although to a lesser degree, at Glasgow University and Oberlin College.

3.1.4 Major Steps

For the creation process of the sustainable procurement policy, many of the institutions began by discussing their ideas in meetings, while gathering the people required for the process. Two main groups were formed for meetings at Evergreen State College for the modification of their paper procurement policy (personal communication, July 2, 2008). The first group consisted of technicians, purchasing staff and staff from the copy centre. The second group consisted of higher-level administrators (e.g. directors, associate VPs and deans). Much planning was also involved at the College of the Atlantic, resulting in several iterations of the policy (personal communication, June 26, 2008). At Yale University, topics of discussion included the environmental aspects of products, as well as the lifecycle analysis of products. The sustainability office, the procurement department and the policy review committee (PRC) discussed these issues, and the suppliers were also brought into discussions. The procurement department drafted the policy, passed it to the PRC for its final signing, who then passed it on to the controller's office for publishing (personal communication, June 26, 2008).

Different people wrote the draft of the policy at different institutions. At Glasgow University, the deputy head of procurement wrote the draft policy and passed it to other members of the procurement department for feedback and revision. No formal approval was required from the President's Office, since the department of procurement had the authority to create the policy themselves (personal communication, June 20, 2008). Two working groups were formed at the University of Winnipeg for the writing of the draft policy. The first working group consisted of the campus sustainability council and others with expertise in the area, while the second working group specialized in writing policy. The policy was formed the collaboration of these two groups, based on an ISO 14001-2004e standard (see Appendix L for further details regarding this standard), the provincial act and best practices found elsewhere. The draft policy was sent to the senior management council, where it was reviewed and made official. Since procurement is relatively centralized at the University of Winnipeg, wide consultation was not required (personal communication, June 25, 2008). However, at Oberlin College, the draft was developed by the students on the purchasing committee, approved by the sustainability office and required the official approval of the President (personal communication, June 26, 2008). Thus, depending on how centralized the institution was, different people became involved in the creation process.

3.2 Purposes of Sustainable Procurement Policies

The main purpose of the sustainable procurement policies at educational institutions is to incorporate sustainable principles into purchasing decisions. Some policies are aimed at more specific products (e.g. Evergreen State College aims at the purchasing of paper), while others are broader, in that they target all purchases made at the institution. The methods of achieving the main purpose also differ among institutions. These various approaches will be discussed in the next section. Below are the specific purposes of the sustainable procurement policies at several institutions:

Evergreen State College (1998):

> To use environmentally benign products and technologies whenever possible. The College supports protecting forest ecosystems and wildlife habitat and using manufacturing processes that minimize erosion and replenish soil nutrients. (See Appendix E for full policy).

Glasgow University:

> To include and encourage the consideration of environmental, sustainability, ethical and social issues when purchasing goods and services, while committed to purchasing so that value for money is achieved within clearly expressed statutory and institutional criteria. (See Appendix F for full policy).

Oberlin College (2006):

> To amend the economic criteria of purchasing decisions with strong commitments towards environmental and social responsibility. (See Appendix G for full policy).

Trent University (1995):

> To procure supplies, equipment, and services that supports the 3 Rs of waste management, namely Reduce, Reuse, and Recycle, and the conservation of energy and water. In so doing the University intends to minimize the harmful effects of their use and final disposition on the environment. (See Appendix H for full policy).

University of Alberta (2003):

> To establish the University as a good corporate citizen by avoiding those companies that fail to respect business practices the University views as important but also by using positive screening to invest in companies that do. (See Appendix I for full policy).

University of British Columbia (1997):

> To develop environmentally responsible campus communities that are economically viable and reflects the values of the members of its campus communities; to ensure integration of ecological, economic and social considerations at all levels of strategic planning and operations within the University; to work towards a sustainable future in cooperation with organizations such as the GVRD and the City of Vancouver; to assume a leadership role through practising sustainable development and instilling sustainable development values in its graduates and employees, through research, teaching, and operations. (See Appendix J for full policy).

University of Winnipeg (2007):

> To establish a framework within which the University will incorporate more environmentally and socially sustainable procurement practices into its procurement activities. (See Appendix K for full policy).

The common attribute among all of these purposes is the commitment to sustainability. However, some of these purposes also include social/ethical commitments as well. These include the policies of Glasgow University, Oberlin College and the University of British Columbia. Economic criteria (value for money) were also mentioned in some of the purposes, including that of Glasgow University and the University of British Columbia. The specificity of the purposes also ranged from merely stating that sustainable products would be preferred (e.g. Oberlin College and University of Winnipeg) to the specific approaches that would be taken to move towards sustainable behaviour. For example, Trent University focuses on the 3 Rs (reduce, reuse, recycle), and the University of British Columbia hopes to instil sustainable values through research and teaching. Therefore, all the purposes include the preference towards sustainable products; however, several differences can be seen, namely the inclusion/exclusion of social and economic responsibility, as well as the specificity of the purpose.

3.2.1 Approaches Taken

Several different approaches were taken in order to work towards achieving the purpose of the sustainable procurement policy. However, the first step for the University of Winnipeg was to define what a sustainable product is. This was the only policy that defined what a sustainable product was, while the other policies defined other terms instead, e.g. what is considered energy efficient. University of Winnipeg defines sustainable products to be "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, reuse, operation, maintenance and waste management of the good or material" (see Appendix K for full policy). The University of Winnipeg also defines environmentally preferable services to be "services that have a more beneficial or less adverse impact on human health and the environment when compared with competing services".

The Green Purchasing Network (GPN) is a recognized organization that promotes the concepts and practices of green purchasing. The GPN (2004) developed a list of environmental items for achieving sustainable purchasing: recycled materials (1), hazardous substances (2), energy and resource savings (3), long service life (4), recycling or disposal system (5), packaging (6), transportation (7) and environmental certification (8).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Evergreen State College	✓	✓	×	×	✓	×	×	×
Glasgow University	×	✓	✓	×	✓	×	×	✓
Oberlin College	✓	✓	✓	✓	✓	✓	✓	✓
Trent University	✓	✓	✓	×	✓	✓	×	✓

University of Alberta	✓	×	✓	×	×	✓	×	✓
University of British Columbia	×	×	✓	×	×	×	×	×
University of Winnipeg	✓	✓	✓	✓	✓	✓	✓	✓

Table 1 - Presence/Absence of the environmental items suggested by the GPN.

Table 1 matches the suggested items from the GPN towards the policy documents on various educational institutions. The most commonly met item is energy and resource savings (3). The only sustainable procurement policy that did not mention this was Evergreen State College, whose policy is directed at the purchasing of paper only. Most institutions also recognized hazardous substances (2), packaging (6), transportation (7) and environmental certification (8) in their sustainable procurement policies. Environmental certifications that were used included ISO14001-2004e at Glasgow University and the University of Winnipeg (see Appendix L for certification details), Energy Star at Oberlin College (see Appendix M for certification details), the Canadian Ministry of Environment's "Environmental Choice Board" at Trent University (see Appendix N for certification details) and the FairTrade label at the University of Alberta (see Appendix O for certification details).

Recycled materials (1) and recycling or disposal system (5) was also recognized, but did not coincide upon every policy. For example, Glasgow University hoped to use a recycling or disposal system, but did not mention the preference towards products that contained recycled materials. On the contrary, the University of Alberta preferred products that contained recycled materials, but did not mention preference towards a recycling or disposal system. Among these items, long service life (4) was the least common attribute found in institutional policies. This could mean that the other items took priority over this particular item.

3.2.1a Energy and Resource Savings

From Table 1 above, energy and resource savings (3) was the most commonly found attribute among the educational institutions. One method of conserving energy was the integration of higher environmental standards into appliances. This method was implemented at Oberlin College and the University of Northumbria. At Trent University, their high environmental standards are determined by the Ministry of Environment's "Environmental Choice Board" and identified by the Canadian Standards Association as being produced in such a way that improves energy efficiency. By following these guidelines, institutions are able to incorporate higher environmental standards into their purchases. Oberlin College's sustainable procurement policy was the only one that provided an explicit definition as to what would be considered energy efficient. A product that is in the upper 25 percent of energy efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting US federal government standards would be considered energy efficient.

Instead of purchasing goods that would use less energy and/or water over their lifetime, other institutions chose to purchase goods that used less energy during its production and shipping. This point of view was used in the procurement policy at the University of Alberta. Resource conservation was also another key goal in the University of Winnipeg's procurement policy. Their policy favoured purchasing goods and services that required less material and energy to manufacture, package, and transport.

3.2.1b Specific Products

Most of the policy documents did not go into further detail as to the requirements for sustainability that each specific product should meet. However, the sustainable procurement policy at Evergreen State College focuses on the purchasing of paper products, and so, its policy document contained more specific information, regarding what types of paper was considered sustainable. Chlorine-free 100% post-consumer recycled paper is the standard for general campus correspondence including laser printing and copy machine use; chlorine-free 30% post-consumer recycled content is the campus standard for color paper. In accordance with the paper purchased, only copiers and printers that will work with 100% recycled paper are purchased. In addition to the sustainable requirements for the paper, Evergreen's purchasing policy states that the cost of the paper will not be more than 10% higher than other standard papers available, and the paper must still work effectively in copy machines and printers. (See Appendix E for full policy).

3.3 Barriers to Creation and Implementation

The literature review discusses several barriers upon the creation of sustainable procurement policies. Thomson et al (2008) provided the results to various interviews with local government authorities regarding the largest barriers that they faced upon creating sustainable procurement policies. The main barrier was found to be the lack of priority at senior levels, while the next largest barrier was the comparatively higher costs of alternative products. Rahm et al (2007) focused on the procurement of green vehicles by the US government, and it was found that their greatest barrier was also the higher costs of sustainable products. Thus, as seen from these articles, the most important issue seems to be the initial high costs of alternative products.

Among the interviewed institutions, most also found that the price of sustainable products was generally higher than that of other products. However, the suppliers of Glasgow University have responded to the sustainable initiative and prices have begun to lower (personal communication, June 20, 2008). Brenda Naegel (personal communication, June 26, 2008) of Yale University believed that the higher prices could be due to a lack of demand, thus if demand was increased, the prices may lower. The policy document at Evergreen State College states that the cost of the sustainable product must not be more than 10% higher than other standard products available. At the College of the Atlantic, Craig Ten Broeck (personal communication, June 26, 2008) believed that the high initial price of products is worth it in the long-term environmentally. However, it was found that the environmentally-friendly cleaning supplies were less effective in performance,

and so, an alternative product had to be used instead. The main barrier encountered by most institutions was the high initial cost, but it did not prevent them from continuing with their policy.

Another major barrier to creating a sustainable procurement policy was the resistance from other parties, both inside or outside the institution. The technicians at Evergreen State College were against the change to using 100% recycled paper products, due to their worries that the paper would not work as well in the machines. A local paper manufacturer was brought in to give a presentation about the paper, as well as some samples for testing. With the help of higher-level administration, the technicians agreed to the change (personal communication, July 2, 2008). At Glasgow University, it was the suppliers who resisted, due to the bureaucracy involved (personal communication, June 20, 2008). Little resistance was found at the College of the Atlantic, since it is an environmental college and thus, is highly environmentally-based (personal communication, June 26, 2008). However, for many of the other institutions, the resistance from other parties proved to be a challenge that required overcoming.

The next major barrier involved disagreements regarding policy content. At Oberlin College, there were various debates regarding the scope and specificity of the policy, and this required many meetings for discussion (personal communication, June 26, 2008). Yale University found that lifecycle analysis was not always available for certain products, which also proved to be a problem in choosing products (personal communication, June 26, 2008). Finally, the University of Winnipeg's major barriers were institutional capacity (people and time), lack of sufficient information (specific knowledge and skills for green procurement) and budgetary limits (for hiring experts in the field) (personal communication, June 25, 2008). These barriers stalled the creation process, since the content of the policy could not be set as quickly.

Upon implementation, the main issue was dealing with the change. Glasgow University found that time was needed for the policy to gain momentum in beginning to use it (personal communication, June 20, 2008). Although the policy has not been fully implemented at the University of Winnipeg, Mark Burch (personal communication, June 25, 2008) believed that resistance can be expected from individuals who had been making purchasing decisions freely before. Thus, the biggest issue to implementing a new policy is being able to adjust to the change. The major barriers to creating a sustainable procurement policy are the higher initial costs of products, resistance from certain parties and disagreements regarding policy content.

3.4 Benefits of the Policy

A commonly identified benefit among most of the institutions was being able to express their commitment to sustainability. The College of the Atlantic was able to exemplify its values as an environmentally-based College (personal communication, June 26, 2008), while Glasgow University was able to gain a more psychological benefit of having a sustainable policy (personal communication, June 20, 2008). Oberlin College was also able to show their commitment to sustainability, but Nathan Engstrom (personal communication, June 26, 2008) expressed that it

was also good to have a system to rely on for making purchasing decisions. None of the institutions had any data on savings achieved from the policy. However, there was an important intangible benefit of being able to express the institution's commitment to sustainability, especially for those institutions that are environmentally-based.

4. Recommendations

As this research has shown, a sustainable procurement policy is beneficial to the environment in the long-term, and is also beneficial to the institution, in that the formal procurement system is enhanced to include sustainable principles. Several factors should be kept in mind when creating a sustainable procurement policy.

1. Discussion meetings prior to creation should include the proper people, both inside and outside of the University.
    - First, in-depth research must be done and many meetings for discussion should occur, in which the right level of management within the University should be present. This was a key factor in creating the policy at Evergreen State College, in which some parties did not want to create a sustainable procurement policy; however, the higher-level administration staff was able to convince them in favour of the policy. Such a policy requires collaboration with members outside the institution as well – most importantly, the suppliers. Expectations should be communicated with the suppliers, which include environmental and social responsibility. This was found to be important at Glasgow University, Oberlin College and Yale University. At Yale University, suppliers were also invited into discussion meetings prior to the creation of the sustainable procurement policy, and this allowed for expectations to be communicated towards the suppliers, regarding sustainable products.
2. Policy content should not only include the approaches that would be taken to reach the goals of the policy, but also the specific products that these approaches would target.
    - Second, the scope and specificity of the policy requires time and research, as well as personnel with expertise in the area of procurement. In fulfilling the purpose of their sustainable procurement policy, most institutions included the conservation of energy and resources. This should also be a key part of the sustainable procurement at the University of Toronto. All the other approaches taken (as seen in section 3.2.1) should also be integrated into the sustainable procurement policy. Most of the policies did not take the next step to looking at the specific products that the approaches should apply to. The University of Toronto should not make the same mistake, and should also include the specific products that each approach could be applied to. This would allow for further clarification as to how the goals of the policy would be met. For example, Evergreen State College was able to provide details as to what requirements their paper products should meet.
3. Acquire proper resources and people to implement and enforce the policy.

- Third, it is important to have the proper resources and people involved after the policy is created. Most of the institutions were not able to fully enforce their policy, due to the lack of resources to do so. More staff would be required, in order to enforce the policy.

Therefore, a sustainable procurement policy requires the resources and people to create, implement and enforce, as well as for proper discussion prior to the creation of the policy. Suppliers should also be involved in these meetings. The scope and specificity of the policy would be discussed, and the University of Toronto should take the next step by going into more detail, as to how the purpose of the sustainable procurement policy would be met. To work towards becoming a leader in sustainable procurement, the University of Toronto should gather enough resources to fulfill this aspect, where others were unable to do so.

5. Conclusions

The research questions that were initially posed were answered as fully as possible, given the limitations of the project. Limitations include the statistically small number of interviews that were performed (6 interviews in total), given the timeframe for the project. Also, none of the institutions were able to provide any quantitative data on benefits achieved from the creation of their sustainable procurement policy; thus, this project consisted mainly of qualitative data. However, the research questions were answered as completely as possible.

Sustainable procurement must take into account both the preference towards sustainable products, as well as the cost effective values of procurement. Sustainable procurement policies aimed to achieve both these aspects and the most common approach taken was through energy and resource savings, while the least common approach was long service life. Specific target products were not mentioned in general procurement policies. Barriers to creating a sustainable procurement policy included the high initial cost of sustainable products, resistance from other parties (both inside and outside the institution) and disagreements regarding policy content. Most institutions felt that the greatest benefit of the policy was being able to express the institution's commitment to sustainability.

The recommendations to the Sustainability Office at the University of Toronto are as follows:

1. Discussion meetings prior to creation should include the proper people, both inside and outside of the University.
2. Policy content should not only include the approaches that would be taken to reach the goals of the policy, but also the specific products that these approaches would target.
3. Acquire proper resources and people to implement and enforce the policy.

6. Acknowledgements

I would like to thank Dr. Beth Savan and Dr. Sarah Wakefield of the Sustainability Office at the University of Toronto for their invaluable support and supervision over this ENV299 project. I would also like to thank Leah Sumnauth-McIntosh, Emily Da Silva and Vig Krishnamurthy for their commenting and support.

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8. Appendices

Appendix A: Absence/Presence of a Policy

	Institution Name	Presence of Policy
First Category ▪ Website contained information on policy content, but not on its creation process	Oberlin College	✓
	Trent University	✓
	University of Alberta	✓
	University of Buffalo	No Reply Received
	University of Northumbria	No Reply Received
	University of South Carolina	No Reply Received
	University of Winnipeg	✓

	Yale University	✓
Second Category ▪ Website mentioned the presence of a policy, but no other information was provided	College of the Atlantic	✓
	Evergreen State College	✓
	Leeds University	No Reply Received
	Middlebury College	No Reply Received
	University of British Columbia	✓
Third Category ▪ Website did not mention the existence of a policy	Aquinas College	×
	California State University, Chico	×
	EARTH University	No Reply Received
	Glasgow University	✓
	Green Mountain College	No Reply Received
	Harvard University	×
	Tufts University	×
	University of Maryland	×

The absence/presence of a sustainable procurement policy at selected educational institutions

Appendix B: Consent Form

UNIVERSITY OF TORONTO

Information Letter about the Research Project on the "The Purpose and Impacts of Sustainable Procurement Policies"

Dear (Name of Participant),

Hello! My name is Olivia Ng. I am an undergraduate student in the Faculty of Arts and Science at the University of Toronto. I am conducting a second year research project sponsored by the Sustainability Office at the University of Toronto, to investigate the factors that have contributed to the creation of sustainable purchasing policies at various universities and colleges, highlight the pros and cons of these policies and provide recommendations to the Sustainability Office at the University of Toronto.

The Sustainability Office was established by the University of Toronto's Environmental Protection Advisory Committee in 2004 with support from across the University. The Office functions to reduce the environmental impact of operations on campus by bridging sustainability research and institutional practices. This research project specifically focuses on reducing the environmental impact of purchasing decisions made at the University of Toronto.

Due to your expertise in sustainable purchasing, I would like to invite you to assist in the project by providing your expertise, thoughts and opinions on the research subject matter in a telephone

interview. Your experience in this area will greatly assist in providing insight into the creation process of sustainable purchasing policies.

If you are interested in assisting in the project, please read through the informed consent document below, which outlines how the information you provide will be used. To consent to participate in this project, simply reply by e-mail indicating that you have read and understood the consent form, and are willing to participate as an interviewee.

Once I have received your e-mail consent, we can arrange a phone call at a time that is most convenient to you. I will e-mail you a list of the questions beforehand, regarding the creation process of the sustainable purchasing policy at your institution. I will take notes during the interview and send you a summary of our conversation, outlining opinions, statements and claims that you made. This allows you the opportunity to review the information you have shared and modify or retract statements should you wish to do so. Once I have received your final approval of the interview content, I will use portions of the interview in my project and final report. If you are interested in seeing the final results of my research project, I can provide it to you electronically when it is available.

Your participation would greatly help in providing insight to this project, as well as reducing the environmental impact of operations on the University of Toronto campus. Your participation in this project would be greatly appreciated. If you have any questions about the terms of this research project or your rights as an interviewee, do not hesitate to contact me or my research supervisor.

I hope to hear from you soon!

Sincerely,

Olivia Ng

Undergraduate Researcher

o.ng@utoronto.ca

UNIVERSITY OF TORONTO

Consent Form for Participation in the "The Purpose and Impacts of Sustainable Procurement Policies" Research Project

By agreeing to be interviewed for the research project, you understand that:

- Your participation in an interview is completely voluntary: you may choose to withdraw from the project at any time before the final report has been completed on August 8, 2008.

    - To withdraw from the project, please contact the researcher through e-mail (you do not need to include a reason).
    - If you decide to withdraw, any interview transcripts, and any documents or statements implicating your involvement with the project will be erased.
- The interview will be recorded in writing and records of the interview will be destroyed one year from the final report's completion date.
- A summary of the interview will be provided to you to allow for the modification or retraction of any statements made, before the information of the interview is made public
- Your name and profession may be used in identifying quotes, statements and opinions from your interview unless you request otherwise
- Please keep in mind that even if your name and position title are not used, you may be identifiable by the nature of the information you provide.
- Your personal contact information will not be provided to anyone without your permission.
- The information you provide in the interviews will only be used for the project as described above, and never for any purpose outside the project or for any context not explicitly and directly related to this project without your permission.
- Any information provided in the interview (and approved by you based on the summary you receive) could be made public in the final report to the University of Toronto community.
- Finally, as an interviewee, a copy of the final report and/or final results of the research will be made available to you upon request to the researcher.

To provide consent, please e-mail the researcher with a statement describing your intent to participate, and your agreement to and understanding of the terms of participation as outlined above. The researcher can be contacted at o.ng@utoronto.ca.

Research Supervisor:

Prof. Sarah Wakefield

Acting Sustainability Director

Sustainability Office

University of Toronto

sarah.wakefield@utoronto.ca

Appendix C: Interview Questions

Organization:

1. How is purchasing organized at your institution?
    a. How centralized is purchasing?

b. Is there a separate purchasing department?

Creation:

2. Why did your institution decide to create a sustainable purchasing policy?
    a. Was there a major person or group of people who pushed for it to happen? If so, who?
    b. Were members from different levels of your institution engaged in the creation of your policy? (e.g. students, faculty, administration)
3. What were the major steps in the creation process?
    a. Who were the major people involved in its creation? What were their positions?
    b. When was your policy created?
    c. How long was the creation process?

Barriers and Benefits:

4. What were the barriers encountered upon the creation of your policy?
    a. Once the policy was created, were there any obstacles to implementing it?
    b. What do you believe are the greatest benefits of this policy for your institution?
    c. Do you have any data on savings (financial and/or environmental) achieved as a result of this policy?
    d. What are the short and long-term costs of your policy?

Compliance:

5. How is compliance with the policy monitored?
    a. Is it voluntary or enforced with penalties?
    b. Do you think that this is an effective approach? If not, what do you think is the most effective approach?

Recommendations:

6. Would you have any recommendations to the University of Toronto?
    a. What has worked best at your institution?
    b. Are there any areas that still need more work?

Personal Questions:

7. What is the nature of your work?
    a. What was your role in the creation of the policy?
    b. How long have you been working at this institution?

Appendix D: Interview Request Results

	Institution Name	Interview Request Result

First Category ▪ Website contained information on policy content, but not on its creation process	Oberlin College	Reply received; interviewed
	Trent University	Reply received; not interviewed
	University of Alberta	Reply received; not interviewed
	University of Buffalo	No reply received
	University of Northumbria	No reply received
	University of South Carolina	No reply received
	University of Winnipeg	Reply received; interviewed
	Yale University	Reply received; interviewed
Second Category ▪ Website mentioned the presence of a policy, but no other information was provided	College of the Atlantic	Reply received; interviewed
	Evergreen State College	Reply received; interviewed
	Leeds University	No reply received
	Middlebury College	No reply received
	University of British Columbia	Reply received; not interviewed
Third Category ▪ Website did not mention the existence of a policy	Aquinas College	Reply received; no policy
	California State University, Chico	Reply received; no policy
	EARTH University	No reply received
	Glasgow University	Reply received; interviewed
	Green Mountain College	No reply received
	Harvard University	Reply received; no policy
	Tufts University	Reply received; no policy
	University of Maryland	Reply received; no policy

Results of interview requests sent via e-mail.

Appendix E: Evergreen State College's Paper Purchasing Policy

Policy Statement:

The Evergreen State College is committed to using environmentally benign products and technologies whenever possible. The College supports protecting forest ecosystems and wildlife habitat and using manufacturing processes that minimize erosion and replenish soil nutrients. The General Use Paper Purchasing Policy promotes these principles. Because bioaccumulative and persistent toxic effluent resulting from the chlorine bleach used in pulp and paper processing damage aquatic ecosystems and human health, the College endorses the production and use of paper that is not bleached with chlorine and chlorine derivatives and will, whenever possible, purchase 100% post-consumer recycled paper and/or paper made without trees. This policy will apply to paper used in College offices, in copy machines campus-wide and in student computing laboratories.

Procedures:

Purchasing

When purchasing paper the College will consider these factors:

- Environmental sustainability as outlined in the policy statement.
- Economic sustainability. The cost of the paper will not be more than 10% higher than other standard papers available.
- Supply sustainability. Stock will be readily and consistently available from a local supplier.
- Technological sustainability. The paper will work effectively in copy machines and printers.

Goals and Alternatives

Chlorine-free 100% post-consumer recycled paper is the standard for general campus correspondence including laser printing and copy machine use. Chlorine-free 30% post-consumer recycled content is the campus standard for color paper. Alternative product may be purchased when 100% product is unavailable or unadvisable (i.e. photography; archival purposes; wide-format).

Evergreen will, in its normal replacement schedule, purchase only copiers and printers that will work with 100% recycled paper.

Review Committee

A committee will be composed of one representative each from the Copy Center, Bookstore, Library, Computing and Communications, Purchasing & Contracts, and Publications, as well as one faculty member, at least one student and the Director of Sustainability. The committee will maintain a current list of paper options and prices, will test potential papers, and will notify the Evergreen community every time a new paper is selected. This notification will include an educational component so that campus awareness will not diminish over time.

The committee will: report to the Vice President for Finance and Administration; be responsible for selecting a chairperson from within its membership; meet annually to select paper.

Annually the Vice President for Finance and Administration will select the student representative/s from among students in the Environmental Resource Center and in the Environmental Studies Program.

Appendix F: Glasgow University's Environmental Purchasing Policy

The University of Glasgow recognizes that the purchase of goods and services may have an effect upon the environment, or may need to take account of other sustainability, ethical or social considerations. This policy addresses such concerns.

1. Higher Education institutions are committed to purchasing so that value for money is achieved within clearly expressed statutory and institutional criteria. In this context, the Higher Education sector will seek to include and encourage the consideration of environmental, sustainability, ethical and social issues when purchasing goods and services. (Guidance for Higher Education Institutions, 'Purchasing for Sustainability' refers).
2. University of Glasgow may include the following criteria as part of the evaluation for any purchase. If any of the following criteria are included as part of this tender exercise and the evaluation thereof, this will be stated in the accompanying tender document:

- the requirement to meet ISO 14001
- the use of the EC mandatory energy labelling scheme or any other recognised labelling scheme, or equivalent (E.g. Forest Stewardship Council, EU Flower etc).
- reference to the support or use of Fairtrade products
- specific mention of environmental, ethical and social criteria particular to the product being purchased
- require the completion of a whole life costing matrix to take account of long-term environmental and economic factors
- ask for environmentally friendly alternatives to be quoted and costed, where the supplier can offer such alternatives
- ask for the identification of product areas which may have environmental and social hazards and the procedures in place to deal with such hazards
- require proof from suppliers that policies and procedures are in place to meet all statutory and regulatory requirements so that environmental, ethical and social responsibilities are met
- require proof that all third party suppliers will meet the same environmental, ethical and social standards as the main contractor
- require the supplier to monitor and report on the environmental impact of the product purchased and to provide evidence of improvement as a key indicator on an annual basis
- consider the introduction of management practices to improve environmental, ethical and social responsibilities
- keep University of Glasgow informed about legislation and best practice so that the institution is adopting best practice in terms of environmental, ethical and social responsibility.

3. Glasgow University will actively encourage the tendering and purchase of products which meet environmental, ethical and social criteria as outlined at point 2 above, and as adopted in the tender specification. As such Glasgow University will contribute as follows by:

- recognising that the public sector can influence and improve the environment through its activities
- ensuring that suppliers are made aware of this Environmental Purchasing Policy
- encouraging and helping suppliers with continuous development of environmental, ethical and social policies
- ensuring that within each institution quality is seen not only as fitness for purpose but also reflects socio-economic and environmental benefits
- encouraging all University buyers to take account of a) the social, ethical and environmental impact of their purchases, b) energy consumption and target setting for reduction, c) the

ability of a product to be re-used or recycled, d) the biodegradability of a product, e) the relevance of working conditions and fair pay to meet socio-economic standards.

4. University of Glasgow recognises it has a duty to support and encourage the supply base to perform in a way that will improve social, economic and environmental standards and, accordingly, will, where appropriate, set improvement targets for both buyer and supplier to meet. Such targets should be the subject of review and if this is included in the accompanying tender specification, Glasgow University will monitor the targets and performances against these.

Appendix G: Oberlin College's Green Purchasing Policy

1. Policy Statement

Oberlin College is committed to the use and purchase of environmentally and socially responsible materials and products.

This document outlines the multiple factors that determine Oberlin's procurement decisions. These procurement decisions amend economic criteria with strong commitments towards environmental and social responsibility. In 1999, the Oberlin College Sweatshop-Free Apparel Code of Purchasing established Oberlin College's commitment to purchase socially responsible apparel. This Green Purchasing Policy expands our commitment to social responsibility beyond apparel to all products. People authorized to make purchases on behalf of the college are expected to support our commitment to environmental responsibility through the guidelines and procedures contained in this Green Purchasing Policy.

This Green Purchasing Policy provides a means for implementation of the Environmental Policy Statement of March 2004, proposed and approved by the General Faculty Planning Committee and the Board of Trustees, and the Strategic Plan of March 5, 2005, approved by the General Faculty and the Board of Trustees, as it relates to all college purchases. The Green Purchasing Policy shall be implemented to complement the American University and College President's Climate Commitment signed by President Nancy Dye in November, 2006.

2. Desired Environmental Attributes

When determining whether a product is environmentally preferable all phases of the product's life cycle will be considered, including: raw materials acquisition, production, manufacturing, packaging, distribution, operation, maintenance, disposal, potential for reuse and ability to be recycled. **The following environmental attributes should be considered desirable:**

- ***Biodegradable ****
- ***Carcinogen-free***
- ***Chlorofluorocarbon (CFC)-free***
- ***Compostable***
- ***Durable***
- ***Energy efficient***
- Heavy metal free (e.g., no lead, mercury, cadmium)
- Less hazardous
- ***Locally manufactured or grown***

- ***Low volatile organic compound (VOC) content***
- Low-toxicity
- Lower embodied energy
- Made from rapidly
- ***Renewable materials***
- ***Persistent, bioaccumulative toxin (PBT)-free***
- Preservation and enhancement of local economy
- ***Recyclable***
- ***Recycled post consumer content***
- Reduced ***greenhouse gas emissions***
- Reduced packaging
- Refurbished
- Resource efficiency
- Reusable
- Third-party sustainability certification
- Upgradeable
- ***Water efficient***

**** Italicized bold listings*** indicate terms defined in section 5. Appendix of Environmental Purchasing Definitions

3. Goals

I. Maintain high environmental standards: Purchase products that meet the latest and most credible environmental standards available. In addition, any product that earns LEED credit will be considered a priority.

* See Appendix 4 and 5 for information about these certifications.

II. Integrate a Closed Loop Supply Chain: To develop and maintain a consistent 'cradle-to-cradle' supply chain and purchasing process which considers economic, ethical, social and environmental impacts for all contracts and purchases; where all waste should first be eliminated or avoided and where any remaining waste be considered feedstock for new product development. To reuse, return or negotiate with suppliers the reduction or elimination of all packing materials. Ethical and social impact will be documented by posting the supplier and subcontractor's annual corporate, social, ethical and environmental reports and other supporting documentation. When reports are not currently available the goal will be to work with suppliers to develop and implement corporate social, ethical and environmental reports.

III. Integrate High Environmental Standards into Buildings and Facilities Management: To integrate green purchasing concepts and products into designs, construction documents, final construction and outfitting of all Oberlin College buildings, renovations of property or facilities owned by Oberlin College.

IV. Research and Procure Alternative Energy: To conduct research and procure alternative energy from reliable, certified alternative energy suppliers.

V. Safety: To ensure that the products and services purchased by Oberlin College improve and strengthen the health of the campus community and natural resources. In addition proper MSDS (Material Safety Data Sheets) are identified in all contract specifications and kept on record.

Strategy for Implementation:
The Purchasing Office will implement the Purchasing Policy. The Committee on Environmental Sustainability (CES) will help the Purchasing Office establish goals, benchmarks, assessments, reporting mechanisms, etc. The role of the Office of Environmental Sustainability will be to provide the Purchasing Office with the technical support necessary to implement the policy and to assist with implementation primarily through education--both of the Purchasing Office to get them up to speed on green purchasing and other offices/departments to follow the policy.

4. Appendix of the Latest and Most Credible Environmental Standards

Cleaning Supplies, paint, windows, doors, etc. *See Appendix 5	***Green Seal**** certified
Lumber	***Forest Stewardship Council*** certified
Floorings	***Floor Score certified, Green Label Plus, or SCS Sustainable Choice certified***
Appliances	***ENERGY STAR*** approved
Computers	***EPEAT*** certified
Products for indoor environments (paints, bedding, furniture, etc *See Appendix 5)	***GreenGuard***

5. Appendix of Environmental Purchasing Definitions
Biodegradable – The ability of a substance to decompose in the natural environment into harmless raw materials. To be truly biodegradable, a substance or material should break down into carbon dioxide (a nutrient for plants), water, and naturally occurring minerals that also do not cause harm to the ecosystem. In terms of environmental benefits, a product should take months or years, and not centuries, to biodegrade.
Buyer – Anyone authorized to purchase on behalf of the organization or its subdivisions.
Chlorofluorocarbons (CFCs) – Any of a group of compounds that contain carbon, chlorine, fluorine, and sometimes hydrogen and have been used as refrigerants, cleaning solvents, aerosol propellants and in the manufacture of plastic foams. The uses of CFCs are being phased out because they destroy the planet's stratospheric ozone protection layer.
Compostable – A product that can be placed into a composition of decaying biodegradable materials and eventually turn into a nutrient-rich material. It is synonymous with "biodegradable," except it is limited to solid materials. (Liquid products are not considered compostable.)
Durable – A product that remains useful and usable for a long time without noticeable deterioration in performance.
Energy efficient product – A product that is in the upper 25 percent of energy efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting US federal government standards.
ENERGY STAR- Developed and promoted by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). Energy Star currently certifies and labels appliances, heating and cooling systems, clothes washers, dehumidifiers, dishwashers, commercial and residential refrigerators & freezers, commercial food service equipment, room AC, lighting, office equipment, and manufactured homes. Criteria for product categories are updated regularly and designed to reduce energy use. In addition, Energy Star and the EPA provide information for reducing the costs of operating buildings through their website and informational material.
Website: www.energystar.gov

EPEAT- Electronic Product Environmental Assessment Tool is a self-declaration system operated by the Green Electronics Council to help purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes. EPEAT was developed with funding from the EPA and the Zero Waste Alliance. EPEAT evaluates products based on: material selection, design for end of life, product longevity/life cycle extension, energy conservation, end of life management, corporate Performance, and packaging. EPEAT™ Performance Tiers evaluates electronic products according to three tiers of environmental performance – Bronze, Silver and Gold. The complete set of performance criteria includes 23 required criteria and 28 optional criteria in 8 categories. To qualify for acceptance as an EPEAT product, it must conform to all the required criteria. Environmental groups were active participants in the EPEAT development process along with other key stakeholders. Manufacturers voluntarily announce what performance criteria they meet based on good faith and pay an annual fee. Dell, Apple, Samsung, Sony, Gateway and many other manufacturers participate in EPEAT. Website: www.epeat.net/

FloorScore- is a program for testing and certifying hard floor services compliance with California's indoor air quality emission requirements laid out in California Section 01350 program. Scientific Certification Systems developed the program with the Resilient Floor Covering Institute (RFCI). US Green Building Council approved FloorScore Certification as an indicator for LEED Credit in November 2006. Website: http://www.scscertified.com/iaq/floorscore.html

Forest Stewardship Council (FSC)- FSC creates the standards for SmartWood and Scientific Certification Systems (SCS) (third-party certifying organizations) to certify forests and chain of custody forest products. As of 2005 FSC has three different labels for wood products: "FSC Pure," "FSC Mixed Sources," and "FSC Recycled." Website: www.fsc.org

Greenhouse gases – Any of several dozen heat-trapping trace gases in the earth's atmosphere that absorb infrared radiation. The two major greenhouse gases are water vapor and carbon dioxide; lesser greenhouse gases include methane, ozone (O3), CFCs, and nitrogen oxides.

Greenguard- Greenguard is a for profit company that rates the indoor air quality of a variety of products. Greenguard certified office furniture earns LEED credits for Commercial Interiors Rating System. Companies pay to be Greenguard certified. According to Environmental Bu9ilding News, "the most any one company has paid to date is $180,000 per year." When considering the indoor air quality of products it is important to remember that after the first few months of occupancy, emissions from furnishings diminish to very low levels, and emissions from maintenance and cleaning products are the real issue in terms of air quality (EBN Volume 12, No.10) Website: www.greenguard.org

Green Label Plus- The Carpet and Rug Institute (CRI) developed the Green Label in 1992 as a label for carpets and adhesives that pass their independent testing program for indoor emissions from carpets. The program was updated with stricter standards and called Green Label Plus in 2004. "[C]arpets must be tested by Air Quality Sciences, Inc. of Atlanta (the only certified testing laboratory)." 1 There are 109 certified products from 25 different companies, including: Atlas Carpet Mills Inc., Beaulieu of America, Blue Ridge Commercial Carpet, C&A Floor coverings, Inc, Camelot Carpet Mills, Constantine, Millikin and Company, Lees Carpets by Mohawk Industries, InterfaceFLOR Commercial. Website: http://www.carpet-rug.org/drill_down_2.cfm?page=8&sub=3

Green Seal- Green Seal is a non-profit formed in 1989 that began certifying products in 2000. Green Seal certifies Hand Cleaners, Electric Chillers, Cleaners, Fleet Vehicle Maintenance,

Floor Care Products, paints, papers, newsprint and windows and doors. Green Seal is a member of the Global Ecolabeling Network (GEN).
Reputable: Product standards are developed with the input of the public and industry stakeholders, academia and government agencies. Standards must meet U.S. Environmental Protection Agency (EPA) requirements, International Standards Organization (ISO) requirements and the requirements of third party certifiers. Green Seal cites Ecolab as having Green Seal approved products.
Widely Used: All Federal government contracts reference Green Seal Standards for Industrial and Institutional Cleaners (GS-37) for cleaning products. Green Seal certification is required for all industrial cleaning products bought by schools, and local and state agencies in Minnesota, Massachusetts, Connecticut and New York. Montana, Illinois, Pennsylvania, and Washington are considering adopting Green Seal standards. Ecolab, a leading cleaning supply manufactures, launched a line of products that meet Green Seal criteria in 2005. Maplewood-based 3M Co, Johnson Wax Professional, Benjamin Moore, Dutch Boy and Anderson Corporation product Green Seal certified products. Website: www.greenseal.org

LEED rating system – A self-assessment system developed by the US Green Building Council for rating the environmental preferability of new and existing commercial, institutional, and high-rise residential buildings. Website: www.usgbc.org

Life cycle cost – The amortized annual cost of a product or service, including capital costs, installation costs, operating costs, maintenance costs, and disposal costs discounted over the lifetime of the product or service. (Compare with Product Life cycle.)

Locally manufactured or grown – Manufactured or grown within 100 miles of Oberlin, Ohio.

Material Safety Data Sheet (MSDS) – Written or printed material about a product that includes information on the product's physical and chemical characteristics; physical and health hazards; exposure limits; whether the product contains carcinogenic ingredients above a certain threshold; precautions for safe handling and use; control measures; emergency and first aid procedures; the date of preparation of the MSDS or the last change to it; and the name, address, and telephone number of the manufacturer.

Persistent, bioaccumulative, toxic compounds (PBTs) – Toxic chemicals that persist in the environment and increase in concentration through food chains as larger animals consume PBT laden smaller animals. They transfer rather easily among air, water, and land, and span boundaries of programs, geography, and generations. As a result, PBTs pose risks to human health and ecosystems. They are associated with a range of adverse human health effects, including effects on the nervous system, reproductive and developmental problems, cancer, and genetic impact. They include heavy metals and chemicals such as mercury, dioxins, and PCBs (polychlorinated biphenyls).

Post-consumer recycled content – Percentage of a product made from materials and byproducts recovered or diverted from the solid waste stream after having completed their usefulness as consumer items and used in place of raw or virgin material.

Product life cycle – The culmination of environmental impacts for a product, including raw material acquisition, manufacturing, distribution, use, maintenance, and ultimate disposal of the product. (Compare with Life cycle Cost.)

Recyclable product – A product that after its intended end use can be diverted from the solid waste stream for use as a raw material in the manufacture of another product.

Recovered materials – Waste materials and by-products that have been recovered or diverted from the solid waste stream.

Recycled materials – Material and byproducts that have been recovered or diverted from solid waste and have been utilized in place of raw or virgin material in manufacturing a product. It is derived from post-consumer recycled materials, manufacturing waste, industrial scrap, agricultural waste, and other waste material, but does not include material or byproducts generated from, and commonly reused within, an original manufacturing process.
Refurbished product – A product that has been completely disassembled and restored to its original working order while maximizing the reuse of its original materials.
Renewable materials – Materials made from plant-based feedstock capable of regenerating in less than 200 years such as trees and agricultural products. Rapidly renewable resources, such as grain-based feedstocks, regenerate in less than two years.
Sustainable – An action is said to be sustainable if it satisfies present needs without compromising the ability of future generations to meet their needs.
SCS Sustainable Choice- Scientific Certification Systems certifies selected carpets and floor coverings for compliance with the NSF 140 Carpet Assessment Standard. The criteria is stipulated by the Sustainable Carpet Assessment Standard and California Gold Sustainable Carpet Standard, California Department of General Services. Eight major carpet companies offer a total of over 25 different products that are SCS Sustainable choice certified. About 190 companies have products that meet SCS's other environmental standards. SCS does not identify products that meet their standards with any label that end users can see. Based in Emeryville, California. SCS is a private forprofit company and independent third-party certifier that claims no financial, management or ownership connections between their staff and the clients they certify.
Upgradeable product – The ability to increase a product's performance or features without replacing the product.
Virgin material – Any material occurring in its natural form. Virgin Material is used in the form of raw material in the manufacture of new products.
Volatile organic compounds (VOCs) – Chemicals that readily evaporate and contribute to the formation of air pollution when released into the atmosphere. Many VOCs are classified as toxic and carcinogenic.
Water efficient – A product that is in the upper 25 percent of water efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting US federal government standards.

Appendix H: Trent University's Environmental Procurement Policy

1.0 POLICY OBJECTIVE

It is the objective of the University that the supplies, equipment, and services procured by the University shall support the 3 Rs of waste management, namely Reduce, Reuse, and Recycle, and the conservation of energy and water. In so doing the University intends to minimize the harmful effects of their use and final disposition on the environment.

2.0 SCOPE

This policy applies to all University purchases of goods and services. The University will endeavour, where possible, to consider in the purchasing process the favourable environmental impact of the product or service selection. The criteria for such consideration will be products or services which have been approved by the Ministry of Environment's "Environmental Choice Board" and identified by the Canadian Standards Association or other such Federal, Provincial or

Nationally recognized body, as being produced in such a way that improves energy efficiency, reduces hazardous by products, uses recycled materials or because the product itself can be reused or is recognized to be environmentally sensitive.

3.0 RESPONSIBILITY

The University is committed to actions designed to conserve and protect the environment and will continue to implement those actions whenever possible and economical. It is the responsibility of the University's Purchasing Office in conjunction with all University departments to promote the development and use of environmentally friendly products and services through the following activities:

i) Reviewing contracts, tenders and specifications for goods and services to ensure that whenever possible and economical, they are amended to provide for the expanded use of products and services that contain the maximum level of post-consumer reusable or recyclable waste /or recyclable content, without significantly affecting the intended use of the product or service;

ii) Working with the President's Advisory Environmental Committee and waste management personnel to identify new environmentally friendly products and services and improvements/changes in industry standards that may impact on our environment.

iii) Purchasing from suppliers that provide environmentally friendly products and services or suppliers that are environmentally sensitive in their daily operations.

iv) Promoting the purchase of goods and services which support the three R's where available and practical, for the day to day operation of the University.

v) Seeking new suppliers and encouraging existing suppliers to review the manner in which their goods are packaged. Working with suppliers in the areas of reduction and reuse of packaging materials.

vi) Using cost benefit analysis to arrive at the correct sourcing decision, one that is economically practical, reflects effective purchasing practices and satisfies the requirements of the user department.

vii) Making suppliers aware of the University's Environmental Procurement Policy. Sending a clear message that the University will favour those suppliers whose products meet the environmental objectives of the University.

Appendix I: University of Alberta's Ethical Purchasing Policy

Introduction:

This policy aims to establish the Students' Union as a good corporate citizen by avoiding those companies that fail to respect business practices the Students' Union views as important but also by using positive screening to invest in companies that do.

Policy:

14.12.01 Where alternatives exist in the industry, the Students' Union will not knowingly conduct business of any kind with companies that:

a. Fail to meet basic standards of environmental protection;

b. Actively undermine or fail to respect basic human rights, as defined by the United Nations Declaration of Human Rights;

c. Inflict excessive or unnecessary suffering upon animals by the procedures to which they are subjected.

14.12. 02 The Students' Union will, where practical and feasible, establish business relationships with companies that have strong records in:

a. Environmental management systems and environmental policy;
b. Commendation for environmental performance;
c. Voluntary adherence to standards of ecological regulation or employee care in excess of statutory requirements;
d. Effectively implemented and monitored equal opportunity policies covering race, gender, religion, disability and sexual orientation;
e. Effectively enforced policies against discrimination or harassment on grounds of race, gender, religion, disability or sexual orientation;
f. Paid maternity leave above and beyond statutory requirements;
g. Provision of childcare facilities, job sharing, flextime and career breaks;
h. Constructive industrial relations, co-operation with trade unions or operation of a works council.

14.12. 03 The Students' Union will give preference to companies that:

a. Are based in Canada;
b. Are energy efficient in their production;
c. Use minimal packaging;
d. Use recycled or reused materials where possible;
e. Produce organic products and/or;
f. Possess a fair trade label.

14.12. 04 Companies with which the Students' Union has had no previous dealings, shall be asked to provide information on items 14.12.02 and 14.12.03 at the time of initiation of discussions between them and the Students' Union in cases where the discussions pertain to:

a. Sponsorship of the Students' Union or a Students' Union event
b. The drafting of a contract that requires the approval of Students' Council

14.12. 05 All companies with which the Students' Union currently does business shall be deemed to meet these criteria, unless violations are found through the complaint procedures outlined in section 14.12.06.

14.12. 06 Any member of the Students' Union shall be entitled to lodge a complaint with the Vice President (Operations and Finance) regarding a company with which the Students' Union currently does business, such complaint to be heard and ruled upon by the Executive Committee.

14.12. 07 Where a company is found to be in violation of this policy by the procedure set out in 14.12.05, the Students' Union shall cease commercial relations with that company unless contractual obligations make this impossible.

14.12. 08 Where a company has been found to be in violation of this policy, and where the Students' Union is contractually obligated to continue dealing with that company, the Students' Union shall notify that company of this policy.

14.12. 09 If, upon expiration of a contractual obligation with a company found to be in violation of this policy, the company continues to be in violation of this policy, the contract shall not be renewed.

14.12. 10 The Executive Committee or designate shall ensure that adherence to this policy does not unreasonably affect the quality or cost of goods provided.

14.12. 11 The Students' Union shall only purchase coffee bearing a fair trade label.

Appendix J: University of British Columbia's Sustainable Development Policy

1. Introduction

1.1. "Human demands upon the planet are now of a volume and kind that, unless changed substantially, threaten the future well-being of all living species. Universities are entrusted with the major responsibility to help societies shape their present and future development policies and actions into the sustainable and equitable forms necessary for an environmentally secure and civilized world." (The Halifax Declaration)

1.2. The severity of the problem has been recognized not only by universities, but also by industry. One conclusion from the Business Council for Sustainable Development, Report of the First Antwerp Eco-Efficiency Workshop, sponsored by the Commission of European Communities and the U.N. Environment Program, in November 1993, was:

> 1.2.1. "Industrialised world reductions in material throughout, energy use and environmental degradation of over 90% will be required by 2040 to meet the needs of a growing world population fairly within the planet's ecological means."

1.3. As part of its responsibility as an educational and research institution and as a signatory to both the Halifax Declaration and the Talloires Declaration by the University Presidents for a Sustainable Future, UBC provides leadership by demonstrating the means to a sustainable community on its campuses. UBC recognizes that just as the university contributes to a healthy society and economy through education to build up social capital, we also need to invest in maintaining the ecological services and resources, our natural capital, upon which society depends.

1.4. UBC seeks to become a centre for teaching and learning about the skills and actions needed to manage ourselves in a sustainable way. This in turn requires responsible fiscal management that enables the university to continue to pursue these goals.

2. General

2.1. The University of British Columbia, including its subsidiaries and ancillary operations, is committed to improving its performance in sustainability in all areas of operations. UBC will develop appropriate standards for managing sustainability at UBC. Specific targets, priorities and timetables for achieving these objectives are developed in a consultative process involving faculty, staff and students, as outlined in the procedures of this policy. In the process of meeting the UBC mandate for teaching and research, efforts focus on the following inter-related areas:

> 2.1.1. UBC contributes to the protection of its environmental life support systems. This means minimizing the pollution of air, water and soil.
>
> 2.1.2. UBC preserves and enhances the integrity of ecosystems at UBC through careful management, and the development and implementation of remediation measures for degraded sites as appropriate.
>
> 2.1.3. UBC seeks ways to conserve resources and reduce waste. This means developing methods to minimize the energy and material intensity of university activities and reducing waste.
>
> 2.1.4. UBC has information and reporting systems in support of decision making based on sustainable development principles including life cycle, social and environmental costing and accountability to stakeholders.
>
> 2.1.5. UBC seeks to ensure its long term economic viability through responsible and effective management, the development of a comparative advantage in its educational

and research activities, innovative methods to calculate and account for external costs, to identify cost-savings and new sources of revenue and through innovative partnerships with the larger community.

2.1.6. UBC works to enhance its capacity to teach, research and practice sustainable development principles, and to increase ecological/social/economic literacy and practices among faculty, staff, students, and the public at large.

2.2. UBC implements this policy, mindful of the need to balance ecological, social and economic imperatives, in an open and transparent decision-making process with the involvement of all stakeholders.

PROCEDURES

Approved: May 1997

Revised: June 2005

Pursuant to Policy #1: Administration of Policies, "Procedures may be amended by the President, provided the new procedures conform to the approved policy. Such amendments are reported at the next meeting of the Board of Governors and are incorporated in the next publication of the UBC Policy and Procedure Handbook."

1. Director for Sustainable Development

1.1. The Director for Sustainable Development, reporting to the Associate Vice President Land and Building Services and working with all sectors in the University, is responsible for focusing efforts on the objectives of the policy, promoting the development of sustainability target and action plans of individual units, and coordinating the many sustainable development activities, on-going and emerging, on the University's campuses. The Director liaises closely with the Environmental Programs Manager and the SEEDS program coordinator and is the chief contact with the external community about issues and advances in sustainability at UBC, providing linkages for campus and regional efforts. The Director coordinates reporting on all related University efforts, include recording and reporting on progress (and lack of progress) and plans for long-term development. The Director provides training and guidance to the University community and serves as the central information source about sustainability issues.

2. Targets and Action Plans of all Units

2.1. An action plan will be developed in all units for improving performance in key sustainability areas with clear indicators for targets, by all units, with the assistance of the Director for Sustainable Development. Plans will include evaluation guidelines, effective measures of progress, reporting mechanisms and appropriate educational support. Changes to existing practices as well as new and innovative methods are considered during the development of the plan.

2.2. Once drafted, the targets and action plans will be reviewed by the Vice President responsible for the area for approval of actions, timing and funding. Administrative heads of unit are

responsible for ensuring communication about the goals of the unit's plan and its implementation once approved. Administrative heads report on their progress annually to the Vice President responsible for the units and send a copy to the Director for Sustainable Development Programs for publication of an annual report to the Board of Governors.

2.3. Target and action plans are reviewed by the unit every two years, taking into account new technologies and opportunities. The Director establishes management systems sufficient and appropriate to UBC in order to develop plans and meet goals for sustainability approved by the Board of Governors.

3. Education about Sustainability

3.1. A coordinating mechanism for enhancing educational efforts about sustainability is the SEEDS program.

4. The Sustainability Advisory Committee

4.1. The Director and the SEEDS program are advised by a committee composed of representatives (faculty, staff and students) of key areas across the campuses. The Sustainability Advisory Committee and the SEEDS program are advisory to the Vice–President, Administration and Finance for operational matters, to the Vice–President, Academic and Provost for academic matters at the UBC Vancouver campus, and to the Vice-President, Learning & Research (UBC Okanagan) for academic matters at the UBC Okanagan campus.

4.2. The committee's responsibilities are:

4.2.1. to advise on the SEEDS program, in which students, staff and faculty engage in projects to enhance sustainability of UBC operations and to increase knowledge of and develop solutions to sustainability issues;

4.2.2. to foster the integration of knowledge and issues about sustainability into all relevant scholarly and research activities, the curriculum, and student activities of the University;

4.2.3. to enhance the capacity of academic units to teach and practice sustainable development principles; and

4.2.4. to assist the Director for Sustainable Development to communicate the goals of the sustainable development policy and develop support for them within both operational and academic units of the University.

Appendix K: University of Winnipeg's Green Procurement Policy

Purpose:

The University of Winnipeg (the "University) Green Procurement Policy ("Policy") establishes a framework within which the University will incorporate more environmentally and socially sustainable procurement practices (Green Procurement) into its procurement activities.

Scope:

This policy applies to the facilities and activities as specified in Appendix "A" – Scope of the Sustainability Policy.

Legal Authority:
The legal authority for this Policy includes, but is not necessarily limited to, the following acts and regulations:
Manitoba Sustainable Development Act
Manitoba Sustainable Development Act Green Procurement Guidelines
Manitoba Waste Reduction and Prevention Act

Responsibilities:
• The Vice-President (Human Resources, Audit & Sustainability) is responsible for the maintenance, communication and administration of this Policy so that the University and the companies it employs:
• Use full-cost / life-cycle accounting in making procurement decisions.
• Provide for training of administration, faculty and students about green procurement issues and conservation methods.
• Regularly review technologies for their applicability to this procurement policy.
• Develop procedures, at both the institutional and department level, that achieve the commitments described in this policy.
• Develop, maintain and monitor information useful for tracking progress, identifying priorities, evaluating the impact of any initiatives and ensuring accountability.
• Establish and maintain an Accountability Structure.
• The Executive Director, Financial Services is responsible for maintaining, reporting and analysis of all procurement records and for updates to the Procedures in this Policy.
• The Campus Sustainability Office, in collaboration with the Campus Sustainability Council and relevant departments, is responsible for preparing an annual report on sustainable procurement objectives, targets and performance.
• Purchasing Agents are responsible for implementing the Procedures specified in this Policy in Purchasing Department activities.
• Departmental Staff responsible for purchasing activities are also responsible for implementing the intents of this Policy in their purchasing decisions and activities.

Definitions:
Environmentally Preferable Products – 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, reuse, operation, maintenance, and waste management of the good or material.
Environmentally Preferable Services – means services that have a more beneficial or less adverse impact on human health and the environment when compared with competing services.
Full-cost Accounting – means accounting for the economic, environmental, land use, human health, social and heritage costs and benefits of a particular decision or action to ensure no costs associated with the decision or actions, including externalised costs, are left unaccounted for.
Health – means the condition of being sound in body, mind, and spirit.
Practicable – means sufficient in performance and available at a reasonable price.

Procurement – includes the purchase, lease, rental, use or disposal of goods, materials, facilities and services, including the acquisition of goods, materials, facilities and services by construction, renovation or otherwise.
Reasonable Price – means the price for a good, material or service which one is willing to pay.
Recycled Products – are goods or materials manufactured with waste goods or materials that have been recovered or diverted from the waste stream.
Sustainability – means the capacity of a thing, action, activity or process to be maintained indefinitely.
Toxic Substance – means a substance whose quantity, concentration or the conditions under which it is managed poses an elevated risk to the environment or human health.

Goals:
1. Continuously reduce demand for goods, services and materials by rigorously evaluating needs, exploring alternative, lower consumption methods of delivering the same utility, and progressively "dematerializing" University operations and programs.
2. Ensure that procurement activities evaluate performance and value of goods, materials and services using full-cost accounting.
3. Protect human and ecosystem health and well-being by selecting goods, services and materials that comply with environmental and safety and health standards, are the least toxic alternatives available, and by ensuring proper management of toxic substances for which no alternatives or substitutes are available.
4. Promote environmentally sustainable economic development by procuring goods, services and materials that encourage local industries and markets for environmentally preferably products and services and, to the extent feasible, procuring goods and services from the University neighborhood.
5. Conserve resources, prevent pollution and avoid waste by procuring goods, materials and services that require less material and energy to manufacture, package, and transport, are durable, reusable, recyclable and use renewable forms of energy during production, transport, delivery and use.
6. Encourage training and research programs which increase awareness and encourage adoption of more sustainable procurement practices among students, faculty, administration and support staff at the University.
7. Include provisions in all contracts, tenders, and RFPs which implement the intents of this Policy with respect to all suppliers of goods, services and materials hired or purchased by the University.
8. Develop and implement procurement policies and procedures which comply with or exceed the ISO14001-2004e standard for such systems.
9. Establish and maintain a measurement system to monitor its progress towards these commitments.
10. Report its green procurement performance to internal and external stakeholders.

Methods of Ensuring Accountability
• The University will set and review green procurement objectives on a regular basis.
• Targets will be publicly available and in a format amenable to quantification. So far as practicable, the University will use standards, definitions and indicators that are consistent with

the requirements of both federal and provincial legislation and those necessary to secure and maintain ISO 14001-2004e registration.
• Progress will be audited against the targets established in the objectives.

Related Policies
Air Quality Management Policy
Energy Management Policy
Land Use and Planning Policy
Purchasing Policy (Draft)
Risk Management and Emergency Response Policy
Sustainability Policy
Waste Management Policy
Water Management Policy

Policy Review
This Policy is to be reviewed at least once every five years.

Appendix L: ISO14001-2004e

The ISO14001 is a series of international standards on environmental management. Visit http://www.iso14000-iso14001-environmental-management.com/ for more details.

Appendix M: Energy Star

The Energy Star program was developed and promoted by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). It currently certifies and labels appliances that are updated regularly and designed to reduce energy use. Visit http://www.energystar.gov for more details.

Appendix N: Canadian Ministry of Environment's "Environmental Choice Board"

The Environmental Choice Board is a highly recognized environmental standard and certification mark across North America. Visit http://www.ecologo.org/en/ for more details.

Appendix O: Fairtrade Certification

The Fairtrade certification is a product certification system that incorporates environmental, labour and developmental standards. Visit http://www.fairtrade.net/standards.html for more details.