



# University of Toronto TORONTO ONTARIO M5S 1A1

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OFFICE OF THE VICE-PROVOST, SPACE AND FACILITIES PLANNING

## FOR INFORMATION

TO: Business Board

SPONSOR: Ron Venter, Vice-Provost, Space and Facilities Planning  
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DATE: June 18<sup>th</sup>, 2004 for June 23<sup>rd</sup>, 2005.

AGENDA ITEM: 5(i)

### ITEM IDENTIFICATION:

**Environmental Protection Advisory Committee, [EPAC]: Annual Report**

### JURISDICTIONAL INFORMATION:

Business Board receives reports for information.

### PREVIOUS ACTION TAKEN:

Over the years the Environmental Protection Advisory Committee [EPAC] has contributed to the establishment of new policies and approaches to better recognize and accept the importance of sustainability issues at the University of Toronto. The activities of EPAC are to be reported to the Business Board for information each year through the Vice-Provost, Space and Facilities Planning. The operating procedures of EPAC have been reorganized and an EPAC Executive established. The function of the EPAC Executive is to coordinate and plan the EPAC meetings so as to better define stepwise improvements within a consistent set of objectives.

The initial EPAC policy and implementation procedures were approved by the Business Board of the Governing Council on March 7, 1994. The implementation procedures have been modified to accommodate both the reporting structure and the inclusion of senior administrators within Faculties, Facilities & Services and Capital Projects portfolios and are provided as Attachment A.

### HIGHLIGHTS:

In the year 2004/05 EPAC has made dramatic advances.

The key items are highlighted below, and summarized in the EPAC 2005 Report, provided as Attachment 2.

- Sustainability Office was established on Campus,
- Dr. Beth Savan was appointed the first Director of the Sustainability Office
- Grant support was received from the Toronto Atmospheric Fund
- A website and newsletter, the Sustainability Express were established, see [www.sustainability.utoronto.ca](http://www.sustainability.utoronto.ca), and
- Students across the campus worked to promote new green initiatives.

The EPAC Executive Membership for the academic year July 2004 to June 2005 is identified

#### EPAC EXECUTIVE MEMBERSHIP

##### ***Academic Members:***

Beth Savan [Co-Chair], Director of the Sustainability Office  
Ingrid Stefanovic [Co-Chair] Director, Division of the Environment  
Dyanne Affonso, Dean, Faculty of Nursing.

##### ***Administration Members:***

Bruce Dodds, Director of Utilities, Facilities and Services.  
John Bisanti – Chief Capital Projects Officer  
Ron Swail, Assistant Vice-President, Facilities & Services

##### **Alumni Representatives:**

Brent Gilmour – Alumni Representative

##### **Student Representatives:**

Jennie Greenop, UTERN Representative  
Rob Levan, SAC Representative  
Sandy Kiang, GESA Representative

##### **Secretariat**

Stan Szwagiel, EPAC Secretariat

##### **Member-at-Large**

Ron Venter – Vice-Provost, Space & Facilities Planning

For the current academic year one EPAC FORUM Meeting was scheduled. Other events are summarized in the Sustainability Express, see <http://sustainability.utoronto.ca>

#### **FINANCIAL AND/OR PLANNING IMPLICATIONS:**

The EPAC Executive secured support from the Toronto Atmospheric Fund [TAF] following a modest development grant from TAF in 2003. All accounts are directed through the Director of Utilities, Facilities and Services. Various other funds have been assembled to support the Sustainability Office activities. Both TAF and the Office of the Provost have supported the position of Director of the Sustainability Office for a three year period.

#### **RECOMMENDATION:**

This item is for information only.

## **ATTACHMENT 1: ENVIRONMENTAL PROTECTION ADVISORY COMMITTEE, EPAC. UNIVERSITY OF TORONTO**

### **A. ENVIRONMENTAL PROTECTION POLICY**

PREAMBLE: The University of Toronto is committed to being a positive and creative force in the protection and enhancement of the local and global environment, through its teaching, research and administrative operations. Recognizing that some of its activities, because of their scale and scope, have significant effects on the environment, the University as an institution, and all members of the university community, have the responsibility to society to act in ways consistent with the following principles and objectives:

#### **FUNDAMENTAL PRINCIPLES**

- Minimization of negative impacts on the environment
- Conservation and wise use of natural resources
- Respect for biodiversity

#### **SPECIFIC OBJECTIVES**

In adopting these fundamental principles, the University will be guided by ethical attitudes towards natural spaces, and will take all reasonable steps to meet the following objectives:

- Minimize energy use, through efficient management and practice
- Minimize water use, through efficient management and practice
- Minimize waste generation through reduction, reuse and recycling
- Minimize polluting effluent and emissions into air, land and water
- Minimize noise and odour pollution
- Minimize and where possible eliminate use of chemicals, including outdoor salt, pesticides herbicides and cleaning agents
- Include biodiversity and environmental concerns in planning and landscape decisions
- Meet and where possible exceed environmental standards, regulations and guidelines

### **B. IMPLEMENTATION**

To implement this Environmental Protection Policy:

- An Environmental Protection Advisory Committee [EPAC], a committee open to all interested members of the University, will meet several times each year to discuss and advise an EPAC Executive on defined issues consistent with the University Environment Protection Policy.
- The EPAC Executive will consist of representatives of the administrative staff, academic staff, alumni, student representatives and the administration, and will be chaired by a member(s) of the University's academic staff. Membership [see below] on the EPAC Executive will be determined by the Chair(s) of the Executive and the Vice-Provost, Space & Facilities Planning, in consultation with members of the University. The term for all appointments will be for one year, renewable, and will be reported to EPAC.
- EPAC through the EPAC Executive will provide advice to the Vice-Provost, Space & Facilities Planning on programs to meet the environmental protection objectives.
- The EPAC Executive will arrange EPAC meetings to provide a forum to exchange ideas with all members of the University of Toronto community. All EPAC meetings will be open to all members of the University of Toronto.

The Assistant Vice-President, Facilities & Services (F&S) and Chief, Capital Projects Officer will, with input from the EPAC Executive:

- coordinate the participation of the F&S in the development and implementation of environmental protection initiatives and will liaise with the EPAC and all three campuses on the programs, as appropriate;
- regularly review University policies and procedures to ensure consistency with this policy;
- carry out appropriate environmental audits and pilot projects;
- undertake to inform the University community about this policy and EPAC and how its members, both personally and collectively, can best meet the objectives set forth in the policy;
- inform all contractors, service operations and users of University facilities that they must comply with requirements of the policy; and
- collaborate with the Vice-Provost, Space & Facilities Planning to issue an annual report concerning the University's impact on the environment, summarizing initiatives undertaken, identifying matters which require particular attention and plans for future initiatives.

### **C. MEMBERSHIP OF THE EPAC EXECUTIVE**

The membership of the EPAC Executive is structured as follows:

Academic Membership: three members

Administration Members: three members from either Faculties, Facilities & Services and or Capital Projects

Student Representatives: three student representatives from various student organizations with an interest in environmental issues

Alumni Member: one member

Secretariat: Stanley Szwagiel, Facilities & Services

Administration: Ron Venter, Vice-Provost, Space & Facilities

Co-opted Members: Invited Members, with expertise to address current issues.

## **ATTACHMENT 2: EPAC REPORT 2005**

The thrust of the EPAC activities in 2005 was essentially directed to the successful implementation of the Toronto Atmospheric Fund [TAF] Award and the development of the Sustainability Office. Please refer to <http://www.sustainability.utoronto.ca/>. Look for the full reporting on the Sustainability Office and review the Sustainability Express: Volume 1, Issues 1& 2. Refer to Appendix A for numerous new items emanating from the Sustainability Office.

### **Achievements of the Sustainability Office.**

The TAF grant was received in September 2004. Since that time the activities within the Sustainability have increased significantly under the coordination of Beth Savan and Bruce Dodds with the active participation of various supportive student groups. The achievements are briefly recorded below:

#### **On project implementation:**

- Released an RFP for a feasibility study of extensive lighting retrofits in the Robarts Library, the Medical Sciences Building, and the Ontario Institute for Studies in Education, as well as four chiller system upgrades and additional renewable initiatives;
- Initiated Anti-Idle and Bike Promotion campaigns.

#### **On funding matters:**

- Began negotiations with Toronto Hydro, Natural Resources Canada and the Toronto Better Buildings Partnership to obtain funding to carry out extensive lighting retrofits in the Robarts Library, the Medical Sciences Building, and the Ontario Institute for Studies in Education, as well as four chiller system upgrades;
- Received EcoAction funding of \$45,000.00 to promote behavioural change with respect to energy conservation on campus;
- Obtained a total of \$10,000.00 from the Faculties of Architecture and Landscape Design, Medicine and Engineering and from the Vice Provost's office for Sustainability Office administration;
- Obtained \$13,000.00 from the Ministry of Environment for a temporary Strategic Coordinator for the office;
- Obtained \$ 2,000.00 from the Students Administrative Council for energy efficient flat screen monitors;
- Obtained \$24,000.00 from Natural Resources Canada to fund four recent graduates to work in the Sustainability Office for 6 months;
- Began negotiations with Toronto Hydro, Enbridge, CRESTech (now Etech) and several other funding agencies for support of behaviour change research;
- Established the beginning of a revolving fund, with the \$250,000 annually targeted for energy efficiency projects the payback from which will be re-invested in the fund.

#### **On Human Resources**

- Engaged approximately 100 students through work study positions, volunteer placements and course related projects. Seven of these students won prestigious National Energy Ambassadors Awards for their work with the Sustainability Office;
- Hired a full time Project Manager and a part time Sustainability Administrator; the Project Manager has since become a Facilities and Services employee and a search is underway for a Sustainability Coordinator;
- Hired six students full time for 1.5 to 6 months beginning in May '05.

**On Administration Matters**

- Set up and equipped two offices
- Designed a logo, typeface and colour scheme for the Sustainability Office identity

**On Outreach and Communication:**

- Designed an extensive website, a PowerPoint presentation introducing the office, a newsletter and several banners and displays to promote our activities
- Worked with student groups to arrange the successful EPAC forum in October, Environment Week in March and the Sustainable Energy Fair in March
- Held a very successful Open House in February, at which the Sustainability Office was officially launched by the Deputy Mayor Sandra Bussin, Vice Provost Ron Venter, and Vice President Cathy Riggall, and which received extensive coverage by campus publications
- Established volunteer programs – the Anti Idle campaign and the Green Tour
- Worked with Environmental Studies students to carry out an energy audit of Innis College, which received formal support at Innis College Council for the first stage of implementation
- Worked with SAC to incorporate material on energy efficiency and Sustainability Office initiatives in orientation packages for all incoming students.

**On Monitoring and Behavioural Change:**

- Began work to develop a template for future campus building audits
- Worked with Trinity students to survey residents and implement a pilot program to incent energy efficient behaviour
- Began work on a major research program to identify various target populations, barriers and facilitators for behavioural change enabling energy conservation
- Charted the University's total energy use and began to chart each building's individual energy use and total waste diversion since 1990

**On Curriculum and Research**

- Worked with Environmental Studies students to begin a survey of sustainability curriculum on campus
- Worked with graduate and undergraduate students to review the policies and procedures for building and retrofit design and procurement to promote energy conservation
- Developed several case studies showcasing successful campus projects which conserve energy
- Developed data bases of environmental coordinators, building managers and sustainability researchers.

The future plans are ambitious, and involve attracting significant further funding in the form of grants, to enable us to complete the chiller replacement and retrofit projects; to carry out a campaign to reduce the 45% of electricity consumed by office equipment on campus through IT adjustments and behaviour change; to further increase organic waste diversion and to establish renewable energy demonstration and pilot projects on campus, and to work with building users and managers to further reduce energy use for heating and cooling. A draft of the Strategic Plan is provided in Appendix B.

**APPENDIX A: All content on the Sustainability Website as of May 12, 2005 are provided below.**

**Newsletters**

**Found under MEDIA > NEWSLETTER ARCHIVES**

<http://www.sustainability.utoronto.ca/Default.aspx?tabid=57>

Volume 1, Issue 1 <http://www.sustainability.utoronto.ca/Portals/0/Newsletter.pdf>

Volume 1, Issue 2 <http://www.sustainability.utoronto.ca/Portals/0/Newsletter%20Vol1Iss2.pdf>

**Other Publications**

**Found under MEDIA > PUBLICATIONS**

<http://www.sustainability.utoronto.ca/Default.aspx?tabid=55>

Updated Business Plan

<http://www.sustainability.utoronto.ca/Portals/0/Updated%20Strategic%20Plan%20March%202005.pdf>

U of T GHGE Reduction Strategy

<http://www.sustainability.utoronto.ca/Portals/0/finalBusPlan.pdf>

Student Family Residence Green Roof Initiative

<http://www.sustainability.utoronto.ca/Portals/0/Student%20Family%20Residence%20Green%20Roof%20Initiative.pdf>

Green Toronto Awards

<http://www.sustainability.utoronto.ca/Portals/0/GreenTorontoAwards.pdf>

Green Toronto Awards Attachment

<http://www.sustainability.utoronto.ca/Portals/0/GreenToronto-attachments.pdf>

U of T Scarborough Student Center

<http://www.sustainability.utoronto.ca/Portals/0/UTSC%20Student%20Center%20FSA-registration.pdf>

**Press Releases**

**Found under MEDIA > PRESS RELEASES**

<http://www.sustainability.utoronto.ca/Default.aspx?tabid=56>

February 2005

Sustainability Office Press Release

<http://www.sustainability.utoronto.ca/Default.aspx?tabid=68>

News@UofT: "Environmental sustainability office launched"

<http://www.news.utoronto.ca/bin6/050207-953.asp>

Salterrea article: "Sustainability Office launches"

<http://www.salterrae.ca/8/article1.php>

EnviroNews: Winter 2004/5

<http://www.utoronto.ca/env/envnews/2004-05WinterEnvironews.pdf>

Inside Toronto.com: "University of Toronto cleaning up its act"  
<http://www.insidetoronto.ca/to/annex/story/2578922p-2990131c.html>

The Varsity Online: "A cleaner, greener U of T"  
<http://www.thevarsity.ca/media/paper285/news/870835.html?mkey=495774>

The Gazette: "Western behind on sustainability initiatives"  
<http://www.gazette.uwo.ca/article.cfm?section=FrontPage&articleID=291&month=03&day=04&year=2005%3cbr%3e>

March 2005

The Varsity Onlien: "Cutting down on the carbs at U of T – carbon that is"  
<http://www.thevarsity.ca/media/paper285/news/893562.html?mkey=495774>

### **Student Research**

**Found under RESEARCH > STUDENT RESEARCH**  
<http://www.sustainability.utoronto.ca/Default.aspx?tabid=51>

*ENV 421 Environmental Research*

2004/5 - ISO 14001 Environmental Management System  
<http://www.sustainability.utoronto.ca/Portals/0/ENV421%202005%20ISO%2014001.pdf>

2004/5 - The Natural Step at the University of Toronto  
<http://www.sustainability.utoronto.ca/Portals/0/ENV421%202005%20The%20Natural%20Step.pdf>

2003/4 - Change & the Kyoto Protocol: Is the University up for the Challenge?  
<http://www.cquest.utoronto.ca/env/env421h/GHGmissions/GHGmissions.htm>

2002/3 – Waste Management at the University of Toronto  
<http://www.cquest.utoronto.ca/env/env421h/WasteManagement/WasteMgmt.htm>

2001/2 – Impact Assessment of the Proposed Developments on Bloor Street  
<http://www.cquest.utoronto.ca/env/env421h/BloorStreet/bloorstreet.htm>

2000/1 – Monitoring the University of Toronto's Environmental Performance: How close are we to the vision, goals and recommendations of the City of Toronto's Environmental Plan?  
<http://www.cquest.utoronto.ca/env/env421h/EnvPerformance/execsummary.htm>

*INI223 Effective Environmental Skills*

2003/4

The University of Toronto Open Spaces Master Plan: Assessment of greenhouse gas emissions and energy use (Authors Flanagan, Skinlo, Kastelic, and Van Slightenhorst)  
<http://www.sustainability.utoronto.ca/Portals/0/INI223%202003%20Open%20Spaces%20Flanagan.pdf>



2004/5

AV Equipment (Authors unknown)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20AV%20Equipment.pdf>

AV Equipment PPT presentation (Authors Unknown)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20AV%20Equipment%20ppt.pdf>

Lighting the Way: Energy Efficient Classrooms at Innis College (Authors Saks, Chignall and Kristiansen)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficiency%20Classrooms%20Saks.pdf>

Lighting the Way: Energy Efficient Classrooms at Innis College (PPT) (Authors Saks, Chignall and Kristiansen)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficiency%20Classroom%20Saks%20ppt.pdf>

Reducing Energy Consumption of Innis College Office Computers (Authors Balan, Hari, Rolle and Wingenbach)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficiency%20Computers%20Balan.pdf>

Reducing Energy Consumption of Innis College Office Computers (PPT) (Authors Balan, Hari, Rolle and Wingenbach)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficiency%20Computers%20Balan%20ppt.pdf>

Tragedy of the Commons: Energy efficiency in common-area computers at Innis College (Authors Doukas, Rayale, Timberg and Yun)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficiency%20Computers%20Doukas.pdf>

Tragedy of the Commons (PPT) (Authors Doukas, Rayale, Timberg and Yun)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficiency%20Computers%20Doukas%20ppt.pdf>

Incentives and Energy Efficiency (Authors Unknown)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Institutional%20Incentives.pdf>

Incentives and Energy Efficiency: An Impetus for Action (PPT) (Authors Unknown)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Institutional%20Incentives%20Presentation%20ppt.pdf>

A Closer Look at Innis College: Lighting for Common Areas and Washrooms (PPT) (Authors Unknown)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Lighting%20Common%20Mihovic%20ppt.pdf>

A Brighter Future for Innis College: Energy Efficient Office Lighting (Author Aversa)

<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficient%20Office%20Aversa.pdf>

A Brighter Future for Innis College: Energy Efficient Office Lighting (PPT) (Author Aversa)  
<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Efficient%20Office%20Aversa%20ppt.pdf>

Printers, Fax and Copiers (PPT) (Authors Unknown)  
<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Office%20Printers%20Fax%20Copiers%20presentation%20ppt.pdf>

"The sink isn't the only leaking thing in the kitchen": An investigation of small appliances at Innis College; their energy use and its implications (Authors Wilhelm, Kelley and Quinto)  
<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Small%20Appliances%20Wilhelm.pdf>

"The sink isn't the only leaking thing in the kitchen": An investigation of small appliances at Innis College; their energy use and its implications (PPT) (Authors Wilhelm, Kelley and Quinto)  
<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Energy%20Small%20Appliances%20Wilhelm%20ppt.pdf>

Office Windows: Innis College (Authors Holler, Colosimo, Krone and Hill)  
<http://www.sustainability.utoronto.ca/Portals/0/INI223%202004%20Office%20Windows%20Holler%20ppt.pdf>

## **APPENDIX B: University of Toronto Sustainability Office**

A draft of the three year Strategic Plan is provided below.

### **INTRODUCTION**

The University of Toronto Sustainability Office was established in 2004 with a three year grant from the Toronto Atmospheric Fund and considerable support from various units in the university. This plan represents an evolution of the original Business Plan submitted as a funding proposal to the Toronto Atmospheric Fund. This draft provides a basis for consultation with our various partners and constituencies both inside and outside of the university.

### **MISSION**

**Short Term:** To dramatically reduce energy consumption and therefore greenhouse gas and pollutant emissions at the University of Toronto.

**Medium Term:** To imbed energy conservation, waste reduction and campus greening in all the decisions, practices and procedures of the university.

**Long Term:** To create a culture of sustainability at the U of T, which will be reflected in all its functions and operations.

### **CORE COMPETENCIES AND FUNCTIONS**

- Support and catalyze student, faculty and staff stewardship and action
- Develop and provide resources and training on energy conservation
- Fund, develop and implement energy conservation projects
- Establish baseline energy use data and monitor changes in use
- Establish financial tools to promote energy conservation
- Develop institutional policies to promote energy conservation
- Support and catalyze research and education on energy conservation
- Network with other like minded organizations

### **ORGANIZATIONAL OBJECTIVES**

Through our programs, the Sustainability Office aims to:

- meet and, if possible, exceed the Kyoto goal at the U. of T.
- become a leader among Canadian Universities and among large institutions in the City of Toronto (by establishing transferable practices and procedures).
- promote the one tonne challenge among members of the university community.
- establish energy efficiency as a key criterion for decision making with respect to facilities planning and renovation and purchasing.
- establish state of the art demonstration projects on campus.
- promote research and development in the area of energy efficiency and provide a forum to prove and demonstrate these new developments in a living lab
- establish a sustainable funding mechanism, such as revolving fund, for the ongoing implementation of energy and emission reduction projects

### **CORE CLIENTS/ CONSTITUENTS**

The Sustainability Office's core clients/constituents include students, faculty, staff and the administration at the University of Toronto, as well as the local community. These constituents are identified and served in the following manner:

**Students:**

To engage the majority of the students at the university through our employment and volunteer programs or through our stewardship projects in energy conservation, and to support student groups in initiatives which promote energy conservation.

**Staff and Administration:**

To engage the majority of the staff and administration at the university in energy conservation stewardship and in ensuring that their responsibilities are carried out in such a way that energy is conserved, as well as to support institutional initiatives which promote energy conservation

**Faculty:**

To engage the majority of the faculty at the university in energy conservation stewardship and in ensuring that their responsibilities are carried out in such a way that energy is conserved, as well as to support teaching and research related to energy conservation

**Local Community:**

To forger mutually beneficial partnerships with complementary groups in the community including the City of Toronto, Toronto Hydro, Toronto Atmospheric Fund, Ontario Ministry of Energy, Windshare, etc.

**THREE-YEAR VISION AND PERFORMANCE INDICATORS****THREE-YEAR VISION**

In analyzing past performance and prospects for growth, the Sustainability Office's staff and advisors have articulated the following collective vision for how the organization will have evolved by 2007.

By the end of 2007, the Sustainability Office will: have dramatically reduced energy consumption and therefore greenhouse gas emissions at the University of Toronto.

**PERFORMANCE INDICATORS**

The following quantitative and qualitative performance indicators have been established to measure the Sustainability Office's success in reaching its stated three-year objectives.

**Quantitative:**

<b>Performance Indicator</b>	<b>Current (2004/5)</b>	<b>Projected for 2007</b>
<u>Energy Conservation</u>		
Retrofit Projects	Submit funding requests and RFPs for retrofits, Koffler interconnection to the BCIT chiller plant, Power Pipe installations at Hart House and the new University College residence	3 major lighting retrofits, 4 chiller system upgrades, several others completed
Renewable projects	Projects identified with interested groups on campus, e.g. Robarts Library anemometer	2 or more photovoltaic, solar, wind or other renewable projects completed

Demonstration projects	Projects identified with interested groups on campus, e.g. Dept. of Chemical Engineering, Ice Slurry based Thermal Storage System	2 or more photovoltaic, solar, wind or other demonstration projects completed
Total CO2 emissions	Set up toolkit for normalized energy consumption and CO2 emissions inventory	Annualized CO2 emissions for the campus; Kyoto emissions targets established and tracked
CO2 emissions per square foot	Calculate for different building uses by August	Annualized CO2 emissions for individual buildings tracked
Total energy use	Determine normalized energy consumption	Annualized energy use for the campus tracked
Energy use per square foot	Calculate for different building uses by August	Annualized energy use indices established for different building types
Buildings/Administrative units separately monitored	2 Residence wings at Trinity College	Annualized energy use tracked for each building
<b>Outreach and Engagement</b>		
Total number of students engaged in sustainability office activities	100	200
Students pursuing sustainability related coursework	60	150
Students volunteering with Sustainability Office initiatives	3	10
Work Study students at the Sustainability Office	18	25
Summer students at the SO	4	8
Participants in SO volunteer programs	10	50
Building managers involved in SO activities	0	30
Environmental coordinators involved in SO activities	0	100
Permanent SO displays on campus	2	10
Campus media articles on the SO	5	15
Off campus media articles on the SO	0	5
Partnerships with student organizations	5	5
Partnerships with off campus organizations	1	6

<b>Curriculum and Research</b>		
Number of courses incorporating sustainability curriculum		
Number of students enrolled in such courses		
Number of faculty engaged in sustainability-related research	130	200
Number of graduate students engaged in sustainability-related research	2	10
<u>Institutional Policies and Procedures</u>		
Number of projects funded by revolving fund	None	3
Funds contributed by University	\$260k	\$500k
Funds contributed by donors	None	\$500k
Funds invested by endowments	None	\$500k
Total in revolving fund	None	\$2 million
Project funds raised from grants	\$225k TAF \$45k EcoAction \$13k Ont. MOEnv.	\$250k more in various grants
Total	\$543k	
SO budget	\$543k	
Number of SO staff	1.4 + .67 FTE buyout	

#### **Qualitative:**

- construction guidelines ensuring energy efficiency in new and renovated buildings
- procurement guidelines ensuring energy efficiency in university purchases
- IT guidelines ensuring energy efficiency in use of computers on campus
- Transportation guidelines ensuring energy efficiency in use of university vehicles
- Expanded local, provincial and national presence/reputation
- Increased accountability for energy use on campus by faculty, staff and students
- Increased participation in one tonne challenge by faculty, staff and students
- Increased financial and administrative stability
- Improved operations and management practices
- Increased level of job satisfaction and career development opportunities for staff and volunteers

## STRATEGIC PRIORITIES

These goals, and concrete strategies for their realization, have been developed after close examination of the organization's current operations and potential for growth.

1. GOAL: To increase energy conservation by implementing energy efficient retrofit, renewable and demonstration projects

1.1 Develop and maintain an emissions inventory and track reductions

Strategies		2004/5	2005/6	2006/7
a)	Identify historic and current energy use and emissions for each unit	July		
b)	Establish reduction targets	Aug.		
c)	Track changes online	Sept.		

1.2 Complete three lighting retrofits and four chiller system upgrades

Strategies		2004/5	2005/6	2006/7
a)	Obtain grants and no interest loans to fund these projects (BBP, NRCAN, ...)	Feb.		
b)	RFP for retrofit work Program 1	March		
c)	Obtain university investment in these projects	April		
d)	Complete Program 1 projects		Dec.	

1.3 Plan and implement new renewable projects

Strategies		2004/5	2005/6	2006/7
a)	Establish partnerships with groups promoting such projects on campus (ESC, ...)		Sept.	
b)	Obtain grants and no interest loans to fund these projects (...)		Oct.	
c)	Obtain university investment in these projects		Nov.	
d)	Implement projects		Jan.	

1.4 Plan and implement new demonstration projects

Strategies		2004/5	2005/6	2006/7
a)	Establish partnerships with groups promoting such projects on campus (ESC, ...)		Sept.	
b)	Obtain grants and no interest loans to fund these projects (...)		Oct.	
c)	Obtain university investment in these projects		Nov.	
d)	Implement projects		Jan.	

2. GOAL: To establish institutional policies and procedures that promote energy conservation

2.1. Establish a revolving fund.

Strategies		2004/5	2005/6	2006/7
a)	Secure agreement in principle to a written proposal	April 30		
b)	Secure start-up funding		\$500k	\$1 million
c)	Fundraise for substantial fund from internal, external (development) investment and pension sources		\$500k	\$1 million

## 2.2. Raise funds to secure future of office and revolving fund

<b>Strategies</b>		<b>2004/5</b>	<b>2005/6</b>	<b>2006/7</b>
a)	Establish ongoing commitment from Development to provide a resource person for the office	June 30		
b)	Identify potential donors and develop a strategy and fundraising documents		Aug. 30	
c)	Approach donors		Dec. 30	
d)	Approach internal institutional sources		Dec. 30	

## 2.3. Establish new sustainable construction and renovation guidelines for RFPs

<b>Strategies</b>		<b>2004/5</b>	<b>2005/6</b>	<b>2006/7</b>
a)	Supervise student project on green guidelines	Jan.		
b)	Present project recommendations to relevant staff		Sept.	
c)	Promote recommendation through the process		Oct.	

## 2.4. Establish new transportation guidelines

<b>Strategies</b>		<b>2004/5</b>	<b>2005/6</b>	<b>2006/7</b>
a)	Supervise student project on green guidelines		Sept.	
b)	Present project recommendations to relevant parking and vehicle management staff		Mar.	
c)	Promote recommendation through the process			Sept.

## 2.5. Establish new procurement guidelines

<b>Strategies</b>		<b>2004/5</b>	<b>2005/6</b>	<b>2006/7</b>
a)	Supervise student project on green guidelines	Sept.		
b)	Present project recommendations to relevant staff	Mar.		
c)	Promote recommendation through the process		Sept.	

# 3. GOAL: Outreach and Engagement

## 3.1 Outreach

<b>Strategies</b>		<b>2004/5</b>	<b>2005/6</b>	<b>2006/7</b>
a)	Establish outreach mechanisms (newsletter, list serve, etc.	Feb.		
b)	Use existing university mechanisms (newspapers, display cases, website)	Feb.		
c)	Use external media		Sept.	



### 3.2 Engagement

Strategies		2004/5	2005/6	2006/7
a)	Hire work study students	18	25	25
b)	Engage students in relevant research and hold two integrating seminars/term	10	10	10
c)	Engage students with relevant course assignments	60	100	150
d)	Engage volunteers in the work of the office	8	10	10
e)	Engage volunteers in our volunteer programs		10	20
f)	Engage summer students in the work of the office	4	6	8
g)	Engage recent graduates in the work of the office	2	3	4
h)	Engage building managers in the work of the office	0	25	25
i)	Engage environmental coordinators in the work of the office	0	25	25
j)	Establish partnerships with federated Colleges	1		
k)	Establish partnerships with student environmental. groups	5		
l)	Establish partnerships with local community groups	0	2	5
m)	Establish partnerships with local agencies and institutions	2	4	6

## 4. GOAL: Curriculum and Research

### 1.1 Curriculum

Strategies		2004/5	2005/6	2006/7
a)	Review curriculum offerings	Sept.		
b)	Design plan to enhance existing curriculum	Mar.		
c)	Engage Pamela Robinson in carrying out the plan		Sept.	

### 4.2. Research

Strategies		2004/5	2005/6	2006/7
a)	Document relevant U.of T. research for newsletter and local best practices	Aug.		
b)	Establish list of faculty with relevant research	Feb.		
c)	Establish list of graduate students with relevant research	Aug.		
d)	Host research seminar for faculty/students		Nov.	
e)	Design two networks – for faculty and graduate students		Oct.	
f)	Hold annual workshops for each network			Oct.

## EXTERNAL FACTORS IMPACTING GROWTH

While the Sustainability Office's financial stability and public visibility are growing, several external factors beyond the organization's control may positively or adversely affect future growth. In order to remain viable, the Sustainability Office will continually assess these external factors in developing its annual strategic plans and operational budgets.

The Upside:

- Increased interest in community energy conservation
- Increased funding available for energy conservation initiatives
- Enthusiasm for Sustainability Office of part of all sectors in the university community.

The Downside:

- Difficult to engage Development, investment and pensions in fundraising for the revolving fund and long term stability of the office
- Changing population of students requires constant engagement
- Arduous process to change existing guidelines for procurement, transportation, etc.