

**Sustainability Council
The University of Chicago**

**Report to the University of Chicago Administration
On Enhancing Environmental Sustainability on Campus**

June 13, 2008

CONTENTS

- 2 Introduction
 - 2 Background on the Sustainability Council
 - 3 Charge and Current Priorities

- 4 Peer Institution Review
 - 4 Harvard University
 - 6 Stanford University
 - 8 Other Highlights

- 9 Recommendations for the University of Chicago
 - 9 Integrate Sustainability Principles into Facility Plans
 - 10 Encourage and Support the Campus Community in Sustainability Efforts
 - 10 Improve Benchmarking and Reporting

- 12 Conclusion

- 12 Members of the Sustainability Council

- 13 APPENDIX I – Student Groups

- 14 APPENDIX II – Illinois State Sustainability Compact

INTRODUCTION

The University of Chicago has a tradition of innovation and thoughtful stewardship of resources. Environmental sustainability, defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (*Our Common Future: Report of the World Commission on Environment and Development* (Brundtland Commission), 1987), fits within the principles and the practical fabric of the University. Many individual and joint faculty research projects and agendas, as well as larger initiatives—for example, the Program on the Global Environment, the new Energy Policy and Systems Analysis Center, the Midwest Alternative Energy Venture Forum now hosted annually at the Polsky Center for Entrepreneurship of the Graduate School of Business, and research enterprises of long standing at Argonne National Laboratory—are driven by new, complex environmental problems. Some also capitalize on interest in improving business practices. The University’s progress on sustainable operations constitutes the counterpoint to this intellectual work. Without realizing it or trumpeting it loudly, the University has accomplished more than it realizes and is poised to achieve even greater successes.

To advance the University further, this report provides a short overview of the Sustainability Council (background, charge, and current projects); highlights of sustainability initiatives at two peer institutions; and recommendations for our built environment, engagement of the university community, and reporting and benchmarking. We hope this report will encourage the campus community to use its resources in an increasingly sustainable way to better support the important work of the institution.

Background on the Sustainability Council

The Sustainability Council began as a student-led initiative in 2004. In autumn 2006, the council was reconstituted as a multiyear pilot project, jointly supported by the Office of the Vice President and Dean of Students and the Office of the Vice President for Administration to encourage cooperative relationships among such student organizations as the Green Campus Initiative (GCI) and Green Awareness in Action (GAIA), Facilities Services, faculty, and academic programs. The Sustainability Council maintains a website at sustainability.uchicago.edu, which contains more information about the council and its activities.

Charge and Current Priorities

The Sustainability Council strives to improve campus sustainability by providing a forum for discussion among students, faculty, and staff, allowing for new environmental initiatives and sustainable policies to

be enacted on campus. During the year, the Council takes on a wide range of environmental projects recommended by council members and other constituents. Past projects have included campus recycling, dormitory energy audits, proposal of a set of sustainability principles to the University administration, energy conservation and efficiency, and Earth Week.

The council's three current priority projects, each led by a subcommittee, and their accomplishments are:

Urban Agriculture Subcommittee:

- Identified opportunities for education and created urban agriculture projects in Hyde Park/Woodlawn/Kenwood, as well as facilitated the Woodlawn Center for Urban Ecology project.
- Beautified and expanded the native plants garden at the corner of 58th Street and Woodlawn Avenue.

Energy Efficiency Subcommittee:

- Jointly organized the Battle of the Bulbs with Green Campus Initiative.
- Worked with Facilities Services, Residence Halls and Commons, and Real Estate Operations to promote energy efficiency and renewable energy purchasing.

Sustainable Purchasing Subcommittee:

- Offered Greening Your Office workshops in collaboration with University Human Resources Management.
- Provide information on sustainable event planning, including sustainable catering and floral options.
- Encouraged sustainable practices—including food and beverage offerings, containers, and refill policies—at campus coffee shops and dining facilities.

The council has provided successful leadership on other activities, including:

- Planned and implemented programs and events related to Earth Week: conferences, workshops, and internships that promote sustainability at the University and in the community at large.
- Supported campus-wide green initiatives organized by many committed individuals and small groups of students, staff, faculty, and other academics (see appendix I).

- Will launch a new University of Chicago Sustainability website in collaboration with the Office of Community and Civic Affairs, the Provost’s Office, Facilities Services, University Communications, and NSIT to better articulate and coordinate sustainability efforts on campus.
- Consolidated recommendations to improve sustainability on campus as articulated in this report.

PEER INSTITUTION REVIEW

As centers of research, teaching, innovation, and local and global community engagement, colleges and universities have a unique opportunity to lead the way to a sustainable future. Many peer institutions have made significant gains in the past five years on advancing sustainability on their campuses. Harvard and Stanford Universities have emerged as exceptional leaders in campus sustainability, and their work provides a benchmark for future planning at the University of Chicago.

Harvard University

Harvard’s goal is to become a global model of campus sustainability, and they have been advancing toward this since 1999. The Harvard Green Campus Initiative (HGCI) is the locus for sustainability efforts on campus. Its mission is to make Harvard University a living laboratory and learning organization for the pursuit of campus sustainability. The business model of the Harvard Green Campus Initiative (HGCI) is fundamentally entrepreneurial in its approach, as it continuously develops and sells new services to schools and departments that want both to save money and reduce their environmental impacts. Today the HGCI is a service organization consisting of nineteen professional staff and forty part-time students who have been trained and are managed to work on building upgrades, building construction and design, behavioral change, procurement practice, renewable energy, staff training, waste reduction, ongoing environmental education, recycling, and more.

Harvard adopted “Campus Sustainability Principles” to guide their commitment to “developing and maintaining an environment that enhances human health and fosters a transition toward sustainability that is advanced through research, analysis, and experience gained over time.” They have pledged continuous improvement to the following:

- *Demonstrating institutional practices that promote sustainability*, including measures to increase efficiency and use of renewable resources and to decrease production of waste and hazardous materials both in Harvard’s own operations and in those of its suppliers.

- *Promoting the health, productivity, and safety* of the university community through design and maintenance of the built environment.
- *Enhancing the health of campus ecosystems* and increasing the diversity of native species.
- *Developing planning tools* to enable comparative analysis of sustainability implications and to support long-term economic, environmental, and socially responsible decision making.
- *Encouraging environmental inquiry* and institutional learning throughout the university community.
- *Establishing indicators for sustainability* that will enable monitoring reporting and continuous improvement.

Harvard has used life-cycle costing assessment on some construction projects and has piloted Leadership in Energy and Environmental Design ([LEED](#)) standards for renovation of existing buildings and for new construction. They have more LEED-registered projects than any university in the United States (twenty during 2002–07). In addition, Harvard is planning six new on-site renewable energy projects. Harvard has found that many of these projects have a five- to ten-year payback and has recognized that low initial construction costs are not always in the best long-term interest of the university. To support higher initial construction costs, Harvard has established a \$12 million green campus loan fund.

As a member of the Ivy Plus Sustainability Working Group, Harvard is collaborating with other universities, including the University of Chicago, to develop strategies to inventory greenhouse gas in order to mitigate climate change impacts. (See www.greencampus.harvard.edu.)

Stanford University

In 2007, Stanford set out to centralize its efforts to create a green campus and hired a campus sustainability executive director to lead their Department of Sustainability and Energy Management. Prior to this organizational change, individual departments achieved many awards for sustainability efforts. Stanford's dining services became the first certified green business in 2004. Stanford has won accolades for its recycling program, recycling more than 60 percent of campus waste. It also has successfully piloted a transportation demand management program that has reduced single-occupancy vehicle usage from 72 percent to 52 percent over the last five years.

Last March, Stanford presented its most ambitious plan for a green building, a facility projected to use 56 percent less energy and 90 percent less potable water than a comparable traditionally built structure. This is one of Stanford's many green projects that have custom LEED-like building standards. Stanford has dedicated \$15 million for a major capital energy retrofit program.

Because of administrative and faculty leadership, efforts to promote and integrate sustainability practices into campus operations have been very successful. Implementation teams provide leadership on a number of green projects, including major efforts to improve energy conservation, procurement, recycling, and transportation practices.

Through Stanford's Initiative on Environment and Sustainability, environmental researchers and scholars are working to promote environmental sustainability. Over 340 affiliated faculty members from a wide range of disciplines are engaged in the Woods Institute for the Environment. This institute serves as a hub of interdisciplinary environmental research, teaching, and problem solving. The fund-raising goal for this initiative is \$250 million.

Comparison of Key Features of Campus Sustainability Programs

	Harvard	Stanford	University of Chicago
Dedicated Sustainability Director	Yes	Yes	Hiring in process
FTEs Committed to Sustainability	19: Green Campus Initiative	3 dedicated full-time positions, including sustainability executive director and energy conservation staff. Significant faculty/research efforts with 24 staff members at the Woods Institute for the Environment	Multiple individuals across campus dedicate time to sustainability issues and efforts.
Greenhouse Gas (GHG) Inventory Conducted	Yes	Yes	Planning underway
GHG Reduction Plan	Yes	Yes	Planning underway
LEED or LEED-Equivalent Construction Projects	20	4 new: Unlike other universities, Stanford uses custom standards for ensuring long-term sustainability in new buildings, including graduate student housing. Many schools pursue LEED certification, which Stanford planners deem unsuitable.	2 pending LEED projects (Searle Chemistry Laboratory and 6045 Kenwood Renovation)
Special Funding Pools	\$12 million green campus loan fund	\$15 million for capital energy retrofit program	Capital retrofit fund, no green-targeted benchmarks

Other Highlights

Other notable university campus green initiatives include:

- In 2007, Penn produced a strategic plan that was developed to define the University's goals and strategies for achieving climate neutrality. To carry out this mission by 2010, the Environmental Sustainability Advisory Committee (ESAC) was formed. ESAC is a collaboration that includes a select group of faculty, staff, and students from across the university to advise the president on environmental sustainability issues. (See www.business-services.upenn.edu/sustainability/.)
- At MIT, the Department of Facilities is accelerating efforts to make the school a model environmental citizen. MIT's environmental goals guide the department's efforts to manage the life cycles of new and old buildings, reduce waste and increase recycling, produce green power, and conserve resources. MIT received an award from the U.S. Environmental Protection Agency (EPA) for its cogeneration plant, partnered with the EPA to run a design competition to improve Charles River water quality, and installed an innovative biofiltration storm water management system at the new Stata Center. (See mit.edu/facilities/environmental/index.html.)
- The Student Government Association at the University of Tennessee passed a referendum, later approved by Tennessee's board of trustees, calling for an \$8 student fee to purchase green power and to fund energy conservation and on-site generation projects on campus. (See environment.utk.edu.)
- In 2007, Cornell University President David Skorton signed a letter of intent pledging his support for the American College and University Presidents Climate Commitment. Cornell will now begin developing a plan to achieve climate neutrality, a state in which the university leaves a net-zero impact, particularly in terms of its campus CO₂ emissions. Recently, the board of trustees voted to make all building projects that exceed \$5 million to achieve silver LEED standards. (See cornell.edu/sustainability/.)

RECOMMENDATIONS FOR THE UNIVERSITY OF CHICAGO

The University of Chicago has made great strides in the last few years in implementing and promoting sustainable practices. The University is currently pursuing LEED certification for two building projects, has made investments to expand public transportation, has dedicated resources to improve energy efficiency, and has made major strides in recycling and composting programs. Members of the Sustainability Council enthusiastically welcomed Steve Wiesenthal, Associate Vice President for Facilities Services and University Architect, and we look forward to working with him and the future Director of Sustainability to set and achieve sustainability goals at the University. We hope the following recommendations provide guidance to the next phase of planning and program development.

1. Integrate Sustainability Principles into Facility Plans

While acknowledging the challenge of balancing the needs of campus growth, our campus and community constituencies, and the need for greater environmental stewardship, the council recommends incorporating long-term sustainability goals and objectives into appropriate University land use, construction, and landscape plans. Summarized below are specific recommendations to consider:

Building Standards and Construction

- Define sustainability standards (LEED or other measure) to guide new construction, including the possibility of requiring a LEED feasibility assessment for all new projects.
- Document sustainable building and renovation practices for the education and benefit of all operating and maintenance departments and groups.

Energy Use

- Create an energy efficiency policy that exceeds current code requirements.
- Develop an energy program that calls for comprehensive audits and implementation of efficiency measures in existing campus buildings.
- Develop a plan for reducing CO₂ emissions.

Landscaping

- Encourage the prudent use of water through appropriate sprinkler system technologies (clocks, sensors, and controls), plant materials, and horticultural

practices wherever possible. Planting drought-resistant native plants for landscaping will minimize water needs and cost of care.

- Investigate alternative equipment to reduce the use of gas-powered motors.
- Promote the University's status as a botanic garden with campus signage.
- Support the use of natural alternatives to fertilizers and pesticides.

2. Encourage and Support the Campus Community in Sustainability Efforts

Administrative leadership is needed to provide a focused approach to advancing sustainability across campus and ensure collaborative stakeholder engagement. Robert Tiberg on recycling, Gene Suwanski on purchasing, Brian Shaw on transportation, and Venkat Kumar on energy conservation are key individuals who can provide the campus community with the education and infrastructure needed to increase levels of participation in sustainable practices. The council recommends these individuals take the lead to:

- Develop area plans (recycling, purchasing, transportation, energy conservation) setting achievable goals for improving and better integrating operational and individual practices that foster greater environmental stewardship.
- Utilize relationships and tools available through peer institutions and environmental associations to collect best practices.
- Work together with the Sustainability Council and other green groups on campus to promote educational and system resources to maximize cooperation and participation.

3. Improve Benchmarking and Reporting

Various entities such as the Princeton Review and the Sustainable Endowments Institute currently produce report cards and rankings to evaluate sustainable practices at institutions of higher education. A number of college and university associations and networks also exist that seek to share resources, encourage sustainable campus practices, and create benchmarks to evaluate sustainability efforts. The Association for the Advancement of Sustainability in Higher Education (AASHE), and the more grassroots Ivy Plus Sustainability Working Group are two such organizations.

Here in Illinois, Lieutenant Governor Pat Quinn is leading efforts to help colleges and universities become leaders in sustainability practices. Earlier this year, the University of

Chicago signed on to the Illinois Sustainable University Compact, an agreement that obliges its signers to accomplish certain green initiatives by December 31, 2010 (Appendix II).

Collaboration with the above entities and the development of comprehensive data collection and communication plans will lead to more campus cooperation and engagement and increased public credibility, and can attract additional funding for student and faculty-led environmental projects and for institutional sustainable building and energy practices. The council recommends that the new Director of Sustainability and the Director of Data Research form a working group to develop benchmarks, measurement tools, and systems for evaluating and reporting sustainability efforts at the University of Chicago. Specific suggestions include:

- Create a measurement system to evaluate University performance and progress in purchasing, resource and utilities use, recycling, and emissions.
- Develop a process that will lead to the creation of sustainability standards and policies that can be implemented at an institutional level.
- Create a communication plan to share progress and promote successful efforts. The new Sustainability website will be an effective tool to support this effort.
- Consider producing an annual report of sustainable performance.

CONCLUSION

The Sustainability Council is proud of its own progress over the past few years and the progress made at an institutional level at the University. We look forward to working with Steve Wiesenthal and his team to accomplish the goals and recommendations outlined above. Thank you for the opportunity to submit these recommendations.

MEMBERS OF THE SUSTAINABILITY COUNCIL

Michelle Olson, Director of External and Government Affairs, Office of Community and Civic Affairs,
Co-Chair

Zoé VanGelder, third-year student in the College, *Co-Chair*

Justin Borevitz, Assistant Professor, Ecology & Evolution and the College

Colleen Christensen, third-year student in the College, Green Campus Initiative representative

Len Epelbaum, Part-time MBA Program, Graduate School of Business representative

Ingrid Gould, Associate Provost

Kelin Hall, third-year student in the College, Social Justice Group representative

Meghan Hammond, Project Analyst, Office of the Vice President and Dean of Students in the University

Eric Heineman, Project Manager for Sustainability, Office of the Vice President and Dean of Students in the University and Facilities Services

Isaac Hur, third-year student in the College, Students at Large representative

Chris Keating, Director of Facilities and Business Operations, Residence Halls and Commons

Hollin Kretzmann, third-year law student, Law School representative

Venkat Kumar, Director of Energy and Utilities Management, Facilities Services

Mark Lycett, Director, Program on the Global Environment; Senior Lecturer, Anthropology and the
College

Rebecca Maurer, first-year student in the College, student intern

Christina Melander, third-year student in the College, Green Campus Initiative representative

Ted Steck, Professor Emeritus, Biochemistry & Molecular Biology, Molecular Genetics & Cell Biology,
and the College

Megan Wade, master's degree student, Divinity School representative

Christian Wedemeyer, Assistant Professor, Divinity School

APPENDIX I

From recycling initiatives to environmental advocacy, University of Chicago students engage in a range of activities and groups that promote environmental sustainability. Student organizations focused on sustainability include:

- [Chicago Environmental Policy Association](#)
- [Environmental Concerns Organization](#)
- [Environmental Law Society](#)
- [Green Awareness in Action](#)
- [Green Campus Initiative](#)
- [Net Impact at GSB](#)
- [Outdoor Adventure Club](#)
- [Religion & Environment Initiative](#)
- [Ryerson Astronomical Society](#)
- [University of Chicago Environmental Center](#)
- [University of Chicago Vegan Group](#)
- [Velo Club](#)



In cooperation with the Illinois Green Government Coordinating Council and universities and community colleges across Illinois,

THE UNIVERSITY OF CHICAGO

joins the *Illinois Sustainable University Compact*, pledging to accomplish 4 of the following goals by December 31, 2010

- Acquire at least 3 percent of the energy for our campus from renewable sources
- Join the U.S. Environmental Protection Agency's ENERGY STAR Challenge to increase energy efficiency on campus
- Pledge that all new buildings constructed on campus will earn the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification
- Promote more sustainable transportation options, such as
 - a. Purchasing hybrid and flex-fuel vehicles whenever practical
 - b. Using renewable fuels for our campus fleet
 - c. Establishing successful car-sharing and carpooling programs on campus
- Reduce carbon emissions on campus and look into joining a greenhouse gas emission reduction and trading system
- Reduce water usage on campus by at least 15 percent
- Complete at least one stormwater management project, such as
 - a. Installing permeable pavement in a parking lot on campus
 - b. Creating a rain garden to reduce damage from campus flooding
 - c. Incorporating swales into landscaping to improve drainage and reduce erosion
- Increase the amount of overall waste recycled on campus by at least 15 percent
- Purchase non-toxic cleaning products whenever practical
- Purchase at least 25 percent of the food served in our dining facilities from local farms and vendors
- Compost at least 5,000 cubic yards of the organic waste produced on campus
- Reduce pesticide use by establishing integrated pest management practices at all facilities on campus

Nimalan Chinniah
Name NIMALAN CHINNIAN

Date

VP FOR ADMINISTRATION + CFO
Title

UNIVERSITY OF CHICAGO
University or Community College

Lt. Governor Pat Quinn
Chairman, Illinois Green Government
Coordinating Council