

Cornell University Sustainability Plan
Ithaca Campus
2011-2012

Approved by the President's Sustainable Campus Committee
August 2011

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Introduction

The Campus Sustainability plan is a guiding document to support Cornell University's efforts in environmentally, socially, and economically sustainable leadership. The plan for the Ithaca campus outlines strategies; governance and current efforts, including goals and targets for Focus Teams; grassroots initiatives; and opportunities ahead. An appendix catalogs partners and stakeholders in Cornell's efforts.

The university's commitment to campus sustainability was formalized in the 2010-2015 Cornell University Strategic Plan, which calls for sustainability to be a guiding principle in all campus operations, including the implementation of the Climate Action Plan and Comprehensive Master Plan.

As a world leader in sustainability, Cornell University is a committed steward of the Earth and its people. Through research and broad engagement, Cornellians are balancing today's economic, environmental, and social issues with related needs of the future. It is a tremendous interdisciplinary challenge, which Cornell is uniquely positioned to address through research, education, engagement, and campus operations.

Research

A premier hub for sustainability research, Cornell cultivates internal and external collaborations to advance multidisciplinary research in energy, environmental, and economic development. The interconnected and interdependent nature of these arenas transcends individual disciplines, encouraging partnerships and innovative thought. Across campus, scholars form multi-disciplinary research partnerships utilizing their unique strengths. The David R. Atkinson Center for a Sustainable Future brings these scholars together—catalyzing cross-disciplinary intellectual collaborations, stimulating an open research environment on and off campus, and engaging with a wide variety of key partners.

Education

Students at Cornell can choose from a variety of sustainability curricula or minor in sustainable energy systems. Courses are designed by scholars who are the most creative and productive in their disciplines, allowing students to view sustainability in relationship to their chosen field of study. Meeting every challenge with the spirit of explorers, students discover sustainable solutions for their community and world.

Engagement

As New York's land-grant university, Cornell transforms the quality of life in the state, the nation, and the world. Cornellians use knowledge for the public good, striving to turn research into action through sustained collaborations and partnerships at local, state, and international levels. To advance the university's commitment to sustainability, Cornell relies on strong governmental, corporate, and reciprocal community partnerships—a reason the Carnegie Foundation for the Advancement of Teaching recognizes Cornell as an "Institution of Community Engagement." These collaborations provide the mutually beneficial exchange of knowledge and resources between Cornell, citizens, and organizations as they make crucial decisions for a sustainable future.

Campus

At Cornell, the operation of campus reflects the university's commitment to sustainability. From large-scale energy savings projects to small recycling endeavors, Cornell is a living laboratory where doers meet thinkers and learners. With this knowledge, the President's Sustainable Campus Committee oversees all aspects of campus sustainability-related operations: energy, climate, water, food, waste, buildings, people, land, purchasing, and transportation. The committee includes representatives from faculty, staff, and students and is just one example of the university's efforts to foster collaboration between academic units and campus operations.

University-wide Sustainability Goals

Advancing Cornell's Core Mission: A Living Laboratory Strategy

An overarching strategy in Cornell's campus sustainability is the process of becoming a "living laboratory." Through this approach, Cornellians are asked to "become the change" and engage in collaborations across campus among staff, faculty, and students. Lessons learned here, practices refined, and innovations developed help Cornell become more sustainable, and set an example for various entities both near and far. Cornell's consistent and environmentally focused emphases and achievements will continue to create the sustainability leaders of tomorrow.

Campus Sustainability in the Cornell University 2010-2015 Strategic Plan

In May of 2010, Cornell University formally adopted a five-year strategic plan to implement university-wide goals and actions that crosscut or transcend the boundaries of colleges, schools, and administrative units. In regard to the Ithaca campus, the plan details how decisions regarding facilities and the physical environment typically involve the complex interplay of multiple factors and interests that must be recognized and addressed in order to steward the university's physical resources. These decisions will be framed by and consistent with Cornell University's commitments to sustainability. The Strategic Plan specifically states that an integrated planning model will make environmental sustainability a guiding principle in the stewardship of the university's facilities and resources and in assessments of its impact on the community and region.

Innovation in Research and Education: Atkinson Center for a Sustainable Future

Cornell University's David R. Atkinson Center for a Sustainable Future (ACSF) advances multidisciplinary research and cultivates innovative collaborations within and beyond Cornell to foster a sustainable future for all. The ACSF uses its program resources to multiply the productivity and visibility of Cornell's distinguished academic units, centers, and institutes. ACSF's 250 Faculty Fellows form a vibrant research community spanning across all Cornell colleges and encompassing more than 55 departments. ACSF's seed program has leveraged pilot funding from Cornell and the Atkinsons into impressive external support of Cornell's colleges and schools. After two years of pilot operation, a distinguished panel of scientists and leaders in sustainability conducted an assessment of the Center. The panel's report was a ringing endorsement of Cornell's potential as a center for sustainability innovation and urged the university to expand this successful initiative. David and Patricia Atkinson swiftly responded, making an extraordinary gift of \$80 million, the largest individual gift to the Ithaca campus in Cornell's history. The gift provides a permanent, stable financial base for the Center, enabling it to continue the range of transformative programs, launch visionary advances in sustainability scholarship, assist with new faculty hiring, and deliver high-impact innovations.

The Cornell Climate Action Plan: Climate Neutrality by 2050

Created with financial support from the New York State Energy Research and Development Authority and among the first such comprehensive programs undertaken by a major university, the Climate Action Plan (CAP) sets the goal of reducing carbon-based emissions from the Ithaca campus to net zero by the year 2050, thus achieving carbon neutrality. Recommended actions in the plan will help the university improve the energy efficiency of its

facilities, reducing operating expenses and realizing savings otherwise subject to commodity fuel cost fluctuation, projected carbon legislations, and potential capital expenditure. At the same time, the CAP will help Cornell unify research and teaching around sustainability in its broadest sense: economic strength and stability; research and teaching excellence; and outreach programs that fulfill our Ivy League and land grant missions.

The Cornell Campus Master Plan: Dense, Green, and Compact Development

In 2005, with new development on the campus increasingly constrained, Cornell determined it needed a vision and strategy for the best use of the university's lands, both within and beyond the current academic core. The campus master plan provides the university with an integrated framework to guide its long-range physical development over a 30-to-60-year time frame. The campus master plan and subsequent master planning processes are guided by five interrelated and mutually supportive principles. These principles respond to the issues and opportunities that emerged early in the process and encapsulate the main objectives of the plan. They describe an integrated approach to sustainability, recognizing that the stewardship and development of Cornell's campus must balance academic, social, cultural, athletic, environmental, and economic priorities, improving its setting over time for the benefit of all people and ecosystems. These principles are:

- Support the academic mission
- Promote stewardship
- Enhance the campus experience
- Reinforce community
- Ensure integrative planning and design

Growing a Green Economy

As New York State's land grant university, Cornell transfers and applies university-based knowledge for practical benefits and, as a major enterprise, contributes to the State's economic prosperity. The 2009 report on Cornell's Economic Impact focuses on Cornell's research and outreach efforts in the area of environmental sustainability, and shows how those activities have contributed to the beginnings of a "green economy" in the region.

Renewable Energy and Conservation

Cornell Cooperative Extension (CCE) promotes conservation as well as alternative energy sources. It holds informational meetings and demonstration trials with switch grass and other biomass for farmers, advises communities on the economics of wind parks, and provides information to individual property owners on the sale of rights for natural gas. CCE also conducts energy audits for farms and small businesses and energy conservation classes for homeowners, to help them reduce consumption through increased efficiency.

Products and Services

Research conducted at Cornell is already yielding many new products designed to minimize negative impacts on the environment for example:

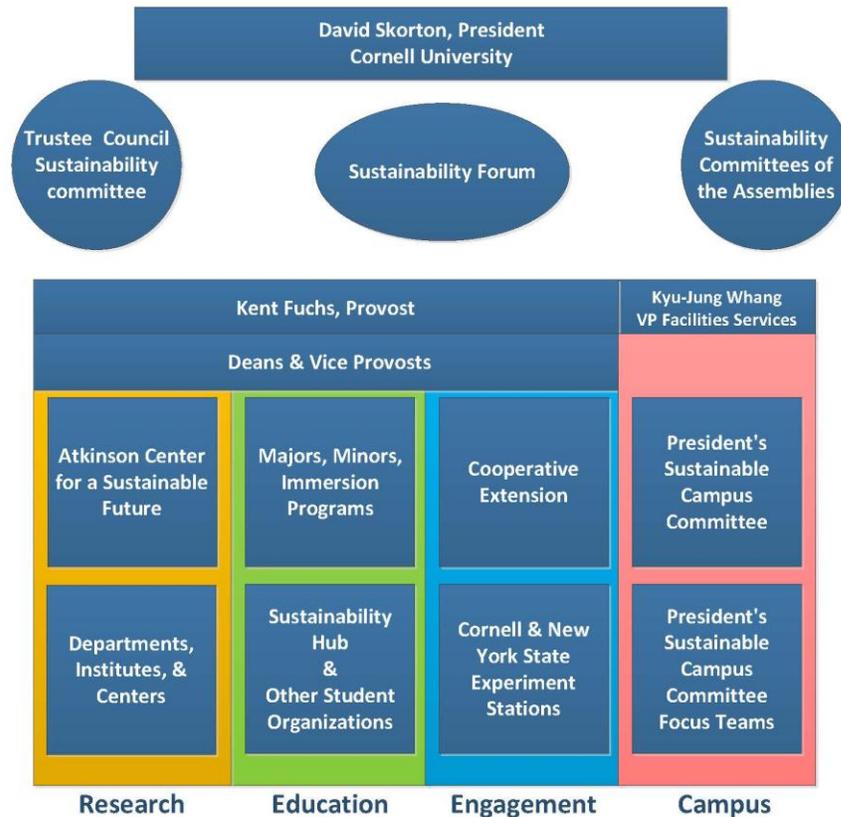
- Novomer is a new materials company producing low-cost, high-performance "green" plastics, polymers, and other chemicals for packaging, commercial, consumer, and industrial markets.

- e2e Materials produces petroleum-free, biodegradable composites from renewable resources like soy protein and bamboo for materials that are stronger, lighter, and cheaper than traditional materials like plywood.
- Terreneu has introduced technology to remove hydrogen sulfide from biogas produced at landfills and on farms, making it a more viable source of renewable energy.

Local Foods

CCE's Farm-to-Chef and Farm-to-School programs promote the purchase of foods grown and produced in New York State to restaurants and school systems, colleges, and universities. CCE also has been involved in activities that promote local, named cuisine, such as "Adirondack Harvest," a collaborative effort among North Country CCE associations to promote the region's products to chefs, store owners, and other potential buyers. CCE associations in more than 20 counties developed Local Farm Product guides in 2007, helping individual producers become part of established "agricultural tourism trails" that emphasize the sale of local products. In addition, CCE supports the development of value-added products such as maple products, condiments, and dairy products. These products typically develop into home-based businesses, with assistance provided by CCE to move to larger-scale production.

Governance and Implementation



The Cornell Sustainability Forum

In the fall of 2010, President Skorton approved the formation of a high-level Sustainability Forum to coordinate and stimulate activities across functions and organizations at Cornell to advance Cornell's position as a global leader in sustainability in campus operations, research, education, and service. The Forum addresses the overarching challenge that advancing sustainability requires high-level administrative decisions on University policies, resource allocation, and pursuit of programmatic opportunities. The primary objective of the Forum is to articulate what policies and programs would optimize Cornell's approach to becoming sustainable and to facilitate communication and promote synergies across relevant University functions.

The Forum, which reports to the President and the Provost, consists of a small executive group of top administrators who meet semi-annually, or more frequently if needed, with shifting groups of selected colleagues to address specific issues and challenges in University sustainability. Some potential areas of discussion include: promoting synergy between facilities/operations and research and teaching, development campaigns and faculty hiring on themes of sustainability, reactive and proactive forums on controversial sustainability problems, student involvement, and green building standards for new construction.

Executive Group Membership

- Frank DiSalvo, Director, Atkinson Center for a Sustainable Future (*Co-Chair*)
- Kyu-Jung Whang, Vice-President, Facilities Services (*Co-Chair*)
- Kathryn Boor, Dean, College of Agriculture and Life Sciences
- Lance Collins, Dean, College of Engineering
- Bill Fry, Dean of the University Faculty
- Kent Kleinman, Dean, College of Architecture, Art and Planning
- Elmira Mangum, Vice President for Planning and Budget
- Charlie Phlegar, Vice President for Alumni Affairs and Development

Sustainability Committees in the Assemblies

Within Cornell University's campus governance system, several of the representative bodies have been involved with sustainability policy and programming on campus. At present, two representative bodies have active sustainability efforts: the Student Assembly (SA), the undergraduate student government system and the University Assembly (UA), a joint body made up of students, faculty, and staff. Both representative bodies can advise the President's Sustainable Campus Committee (PSCC) through open lines of communication between the bodies and, in the case of the SA through the SA Environmental Committee. Recently the University Assembly (UA) was granted authority to review and make recommendations on campus policy in the realm of environmental impact and sustainability. The UA has established the Campus Infrastructure Committee to be a standing committee focused on issues relating to environmental impact and sustainability in addition to other related issues such as facilities, transportation and information technology. The committee includes UA members as well as faculty, staff and student members appointed by the Faculty Senate, the Employee Assembly, the Student Assembly and the Graduate & Professional Student Assembly. Each assembly's current partnership with the PSCC is unique and varied in its level of participation. However, beginning fall 2011, the undergraduate and graduate student representatives of the PSCC will reach out to each body to more formally identify the structure and process for communication and policy development and to strengthen the relationships.

President's Sustainable Campus Committee (PSCC)

Initially formed by President Skorton in 2007 as the Presidents Climate Commitment Implementation Committee with a focus on carbon neutrality, the PSCC was established in spring 2010 to provide broader oversight on administrative decisions that impact campus and regional sustainability, and to support a culture of sustainability through effective collaborations among staff, students, faculty, and regional partners. More information is available at <http://www.sustainablecampus.cornell.edu/about/pscc.cfm>

The 2011 goals of the PSCC include:

- Form 10 "Focus Teams" of staff, students, and faculty
- Track sustainability metrics across all areas of sustainable operations
- Increase recognition in national media through public sustainability reporting
- Support implementation of the Climate Action Plan
- Promote awards, volunteer recognition, and training to encourage sustainability leadership among students and staff

President's Sustainable Campus Committee membership

- Kyu Whang, Vice-President, Facilities Services (*Co-Chair*)
- Tim Fahey, Liberty Hyde Bailey Professor of Natural Resources (*Co-chair*)
- Daniel Roth, Associate Director, Sustainability Office (*Committee Manager*)
- Bert Bland, Senior Director, Energy and Sustainability Department
- Michael Hoffmann, Professor, Dept. of Entomology, Director, CUAES
- Dale Williams; Asst. Dean of Students; Student and Academic Affairs
- Mary-Lynn Cummings, Director of Space Planning, Planning and Budget
- Gary Stewart, Deputy Director, Community Relations, Govt. and Community Relations
- Tracy Vosburgh, Director of Public Affairs, University Communications
- Linda Croll Howell, Director of Work/Life Services, Human Resources
- Lauren Chambliss, Dir. of Communications, Atkinson Center for a Sustainable Future
- Elyssa Dixon, Undergraduate Student, Environmental Engineering
- Natalie Grillon, MBA candidate, S.C. Johnson Graduate School of Management, concentration in Sustainable Global Enterprise.

President's Sustainable Campus Committee's Communications Team

The PSCC Communications Team has two core priorities. The first is to support an institutional culture of sustainability at all levels, from students, to staff, to faculty, from operations to research. The Team facilitates this integration of sustainability as a core community practice and philosophy through multiple media channels focusing on the depth and breadth of activities, events, and engagement. And second, the team communicates Cornell's efforts and achievements to external audiences, providing recognition and validation (awards and rankings) for Cornell's actions, increasing the visibility of sustainability activities for prospective students, and encouraging partnerships with community organizations, foundations, and private partners in the sustainability arena. Our media tools and annual events include:

- Sustainable campus website
- Social media strategy (Weekly News Blast, Facebook, Twitter)
- CornellCast videos on sustainability themes
- Annual sustainability awards
- Sustainability Month events (April)
- Campus Sustainability Day (October)

President's Sustainable Campus Committee's Focus Teams

The Sustainability Focus Teams, assembled in 2011, develop program recommendations, assess progress, and help implement policy recommendations in major operational areas related to sustainability. The teams are composed of staff from these operational areas, students and staff who represent key Cornell community groups, and faculty whose research interests intersect with sustainable campus endeavors. Approximately half the teams have established overarching goals for their activities. Over the coming year, all Focus Teams will develop targets and goals to guide their activities.

Buildings Team

Staff Lead: Gilbert Delgado, Capital Projects and Planning

Academic Representative: Kevin Pratt, Professor, Architecture

Cornell is taking steps to improve the sustainability performance of the campus buildings. Buildings are generally the largest user of energy and the largest source of greenhouse gas emissions on campuses. Buildings also use significant amounts of potable water. Cornell aims to design, build, and maintain buildings in ways that provide a safe and healthy indoor environment for inhabitants while simultaneously mitigating the building's impact on the outdoor environment.

- Support policy of LEED Silver and 30% less energy use than ASHRAE standards for all new buildings and renovations over \$5 million with a goal of achieving 50% less energy use.
- Establishment of energy modeling and building energy intensity standards
- Reduction of average energy intensity to 150,000 BTU/SF/YEAR in labs and 50,000 BTU/SF/YEAR in office spaces
- Develop additional metrics and targets in the following areas: Post Occupancy Evaluations, Efficient Space Utilization, Outreach, Maintenance and Operations, Energy Conservation, Design and Construction Standards

Climate Team

Staff Lead: Steve Beyers, Facilities Services

Academic Representative: Tim Fahey, Professor, Natural Resources

Cornell is committed to measuring and reducing greenhouse gas emissions related to campus operations. The Cornell Climate Action Plan (CAP) aims to completely eliminate net carbon emissions from campus by 2050. Annual greenhouse gas reporting will be submitted to the American College and University Presidents Climate Commitment (ACUPCC) and the Environmental Protection Agency (EPA).

- Complete 2011 CAP Update (in progress) by end of calendar year 2011
- Collaborate with faculty on optimization of forest management strategies for carbon sequestration and biodiversity and analyze appropriate offset and sequestration options
- Add up to three student members by December 1, 2011 each with a specific role:
 - Spreadsheet Refiner
 - Local Offset Expert
 - Forest Sequestration Accounting
 - Geotechnical Sequestration
- Attend at least two (2) TCPPI meetings and update the PSCC on opportunities for community collaborations that support the "Local Offsets" CAP Action, including specific recommendations on the use of the Finger Lakes Climate Fund

- Update a technical brief on forest sequestration and a technical brief on woody biomass – to update CAP — based on work compiled by Weinstein from Fahey’s 2010 Spring class.

Energy Team

Staff Lead: Ed Wilson, Sustainability Office

Academic Representative: Jeff Tester, Professor, Chemical and Biomolecular Engineering

Cornell is reducing energy consumption through conservation and efficiency, and switching to cleaner and renewable sources of energy such as solar, wind, geothermal, and low-impact hydropower. Implementing conservation measures and switching to renewable sources of energy can also help save money. Renewable energy generated locally will reduce carbon emissions and support local economic development.

- **Biomass in the Central Energy Plant:** Feasibility studies are underway. A material handling assessment was completed in July 2011. Identification of funding opportunities continues to be pursued.
- **Energy Conservation Initiative (ECI):** Cornell has approved up to \$45 million dollars to fund energy conservative initiatives. ECI staff are regularly assessing projects and moving cost effective projects forward.
- **Enhanced Geothermal Systems (EGS):** Conceptual studies are being completed under the direction of Professor Jeff Tester. Identification of funding opportunities continues to be pursued.
- **Wind:** Wind energy is seen as critical to our country’s long-range energy supply. Activities by staff and faculty will pursue a consortium of key stakeholders to advance wind energy’s potential locally as well as nationally.
- **Smart Grid:** The concept of employing Smart Grid throughout the electric system is viewed as cutting edge technology that will lead to optimized electric system efficiencies. This concept will be advanced through strategic faculty recruitment and considered for deployment within the Cornell Ithaca campus electric system.
- **Energy Conservation Outreach:** Support the piloting of web-based Energy Dashboards and expansion of the CALS Green program
- **Laboratory energy-use outreach:** Collaborate with faculty, graduate students, and the Office of Environmental Health and Safety to encourage safe conservation measures in laboratories
- Support an academic research project on micro hydro in Forest Home

Food Team

Staff Lead: Therese O'Connor, Dining Administration

Academic Representative: Mike Hoffman, Professor, Entomology, Associate Dean and Director

Cornell is engaged in building a more sustainable food system across New York State and the region. Cornell students grow organic food on campus, and Farm Services operates a large-scale composting facility on campus. Cornell uses food purchases to support local economies; encourage safe, environmentally friendly farming methods; and help alleviate poverty for farmers. Additional efforts are made to lower the environmental footprint of campus dining operations such as tray-less dining, reusable mugs, and compostable packaging.

- **Team Membership Improvement:** Increase and diversify team members to include any

entity that purchases, uses, sells food on campus. Examples include Statler Hotel, Mandible Café, Aramark, etc.

- **Public Relations/Marketing Campaign:** Increase visibility of recent and current accomplishments in food environmental sustainability on campus.
- **Education/Academic Facilitation and Collaboration:** Serve as a resource and to facilitate course development, and/or partner with existing courses that explore food environmental and economic sustainability, e.g. farming and food production, food systems and sourcing, food marketing, food consumption and personal food choices.
 - Act as a “think tank” for faculty, staff, and students
- **University Policy:** Begin to articulate policy and protocol for campus-wide mandates for food purchasing, advertising, and selling. Examples would include mandates for primary purveyors, vendors, caterers, student events, university-owned Greek houses, and athletics.
- **Economics and Affordability:** Research or explore the economic viability of sustainable food practices on campus, i.e., local and regional food production or sourcing, local food packaging, meal plan contracts and retail sales in all areas.
- **Food Waste Prevention:** To use research and operational changes and consumer education to reduce the amount of food waste created as well as to direct more food waste to composting.
- **Measurement and Tracking:** Establish or devise metrics or methods to quantify and means of tracking progress of these various goals.
 - Use of AASHE and STARS metrics and others.

Land Team

Staff Lead: Mina Amundsen, Campus Planning Office

Academic Representative: Marianne Elizabeth Krasny, Professor, Natural Resources
Cornell manages its land and land-based resources weaving sustainability through its planning and operations. The Cornell Master Plan is a guide for long-term green development in a compact footprint, with greater densities, mixed uses, a more pedestrian, bike, and transit friendly campus, and maintaining over two-thirds of the campus as open space. Housing and transportation initiatives are closely interlinked with sustainable community and regional development and infrastructure. The grounds, and working landscapes (including extensive research plots, orchards, pastures, wooded areas, and recreation and athletics fields) are maintained to minimize the use of toxic chemicals and prioritize the use of native species. Natural areas are managed for the conservation of plant and wildlife habitat, as well as natural resources. The management of the two gorges that run through the campus is an important component of this stewardship. The Land Team will advocate for best practices in sustainable campus land use planning and management and serve as a recognized clearinghouse for information and decisions related to gorge management within Cornell. Its membership reflects the multiple areas of expertise required to develop sustainable land use, management, development, and conservation policies.

- Update tree inventory with ecosystem services
- Recertify for Tree Campus USA
- Adopt LEED-ND as Campus Development Standard
 - Tree replanting policy, fund
 - Expand campus naturalization program
- Adopt Sustainable Sites as site development standard (LEED/SITES)

- Campus Master (long term outlook)
- Establish green infrastructure for stormwater management/CO2 emissions absorption
- Develop additional metrics

People Team

Staff Lead: Linda Croll Howell, Workforce Diversity and Inclusion Human Resources

Academic Representative: Susanne M. Bruyère, Professor, School of Industrial and Labor Relations

Recognizing sustainability as responsible and effective utilization of our limited resources, Cornell's people resources are an important area of focus. We strive to practice sustainable people leadership creating a climate where our diverse faculty, staff and students are fully engaged and have the tools, resources and support to achieve their personal wellbeing. We also will provide the knowledge, tools, and resources to empower every member of the Cornell community to demonstrate leadership in all aspects of sustainable stewardship.

- Design sustainability module for campus managers
- Integrate sustainability literacy into staff and student orientation
- Assist college/unit green team formation
- Launch pilot-scale Eco-Reps program
- Review 2011 Staff Survey Results and recommend/implement one initiative to address an area of concern with staff personal sustainability.
- Re-design the People Focus web page – including content aligned with the team statement.

Purchasing Team

Staff Lead: Tom Romantic, Supply Management Services

Academic Representative: Rohit Verma, Professor, Executive Director the Center for Hospitality Research

Cornell is using its purchasing power to help build a sustainable economy in areas such as recycled paper in the library printers to ENERGY STAR products. Each purchasing decision represents an opportunity to choose environmentally and socially preferable products and services and support companies with strong commitments to sustainability.

- Encourage ENERGY STAR product purchasing
- Increase percentage of sweatshop-free apparel
- Support recycled paper and compostable product purchasing
- Encourage reduced packaging
- Take Back the Tap Task Force
- Order Minimum (extend Office Supplies initiative to other commodities)
- Update websites
- Reduce the use of retail shopping bags
- Work with Cornell Architects to identify sustainable supplier practices
- Logistics and Central Distribution Center Committee

Transportation Team

Staff Lead: Joe Lalley, Facilities Operations

Academic Representative: Kathryn Gleason, Professor, Architecture

Cornell will engage the campus and the region to move toward more sustainable transportation systems through partnerships that include Tompkins County Area Transit, Ithaca Carshare, Big Red Bikes and Zimride. We will promote the use of alternative fuels, vehicles, and transportation modes for commuting, business travel, and fleet use to lower Cornell's carbon emissions, and will continue to reduce the dependence on single-occupant vehicles (SOVs).

- Commission six (6) electric vehicle charging stations by June 2012
- Have six (6) electric vehicles in Cornell Fleet
- Define LEV parking program by June 2012 for FY 2013 implementation
- Increase fleet utilization
- Lower fleet lifecycle cost by June 2012
- Complete Transportation Survey by December 2012
- Evaluate expansion of Campus-to-Campus bus service by September 2012
- Add 2 more bike racks on campus by August 2012
- Continue with support for Ithaca Carshare, TCAT, Zimride and Vanpool
- Help institutionalize Big Red Bikes and C-TRAC
- Complete bicycle infrastructure plan by June 2014
- Continue with support for Ithaca Carshare, TCAT, Zimride and Vanpool

Waste Team

Staff Lead: Spring Buck, Recycling Operations

Academic Representative: Jean Bonhotal, Associate Professor, Crops and Soil Sciences

Cornell reduces reuses, recycles, and composts. These actions reduce extraction of virgin materials such as trees and metals from the earth, and reduce Cornell's carbon impact.

Cornell campus operations are a living laboratory for education and exploration of environmental stewardship in relation to waste.

- **Reuse:** Support development of reuse metrics collection systems, procedures for reuse, and policies.
- **Material Use:** Support review of material use policies.
- **Communication:** Compile information and metrics for sharing waste related stories, highlighting environmental, social, and economic impacts and avoided costs.
- **Education:** Support education of campus community on what materials are appropriate for the campus recycle bins, and education on what materials are appropriate for campus landfill bins. Additionally, support education of students on recycling in their off-campus residences within Tompkins County.
- **Expectations:** Incorporate sustainability into university employee job expectations campus wide. In tandem, incorporate sustainability into University student learning objectives.
- **Storage:** Support review of storage policy and procedures campus wide.
- **Infrastructure Improvements:** Support subcommittee efforts in review of outdoor bin placement, design, and installation standards and requirements.

Water Team

Staff Lead: Chris Bordlemay, Department in Energy and Sustainability

Academic Representative: Monroe Weber-Shirk, Senior Lecturer, Civil and Environmental Engineering and Director

Cornell conserves water and strives to protect water quality in the regional watershed through land management, green building practices, and conservation education. Water conservation and effective storm water management reduce the discharge into local surface waters and helps improve the health of local water ecosystems. The use of an elevated surface water source reduces energy costs for the Cornell water supply.

- Recruit 1-3 new students to serve on the Water Focus Team
- Incorporate the Take Back The Tap Taskforce into the Water Focus Team
- Promote positive water related activities on campus
- Produce the Annual Water Quality Report summary to accompany the AWQR
- Re-create the Water Conservation Plan
- Storm Water Planning
- Keep Water page updated on Sustainable Campus Website
- Watershed Protection Plan
- Explore alternative treatment techniques

Grassroots Initiatives

Students

Historically, Cornell students have been catalysts for change on many fronts including carbon reduction planning, waste reduction, double-sided printing, bike and car sharing, and local food purchasing. These efforts are reflected in this current snapshot of student-led groups: <http://www.sustainablecampus.cornell.edu/getinvolved/studentorgs.cfm>

Staff

The thousands of Cornell staff play many important roles in campus sustainability efforts represented in part by these staff-led Green Teams:

- [Campus Life Green Team](#)
- [College of Agriculture and Life Sciences \(CALS\) Green Team](#)
- [Weill Cornell Medical College Green Team](#)
- [Cornell Outdoor Education Green Team](#)
- [Facilities Services Sustainable Computing](#)

Faculty

In 2005, the provost's Task Force on Sustainability in the Age of Development noted that changes must be made on campus to encourage more interdisciplinary collaboration, innovative and risky research, and a broader, more global reach. Among other initiatives, the task force called for the creation of a new Cornell institute for sustainability and development, which would include faculty and students in fields ranging from the physical sciences to agriculture, city and regional planning, law, and environmental sciences. It also recommended seed grants to encourage faculty in areas of research related to sustainability, a series of international workshops, a university-wide course on sustainability, new faculty hires in the field of global warming, and a tenure structure that better supports junior faculty doing unconventional, cross-disciplinary, or "disruptive" research. The creation of the Atkinson Center for a Sustainable Future followed from the conclusions of the task force, and the center is working to implement the recommendations. A copy of the final report can be downloaded here: <http://www.sustainablefuture.cornell.edu/attachments/SustFinalRept.pdf>

Alumni

Cornell University Council allows that the voices of alumni, parents, and friends to play a meaningful role in Cornell's strategic direction. The council includes more than 450 elected members and more than 270 life members. Trustees, trustees emeriti, and presidential councilors also serve as council members. Total membership is more than 850 alumni, parents, and friends. Since 2004, the Cornell University Council has had a Committee on Sustainability that meets annually and works to support Cornell's academic and operational sustainability initiatives. <http://www.alumni.cornell.edu/council/committees.cfm>

Opportunities Ahead

Institutionalization of Sustainability Performance Reporting

Sustainability has become a cross-cutting priority for Cornell University and requires leadership and activity from a wide range of departments and divisions. In order to measure our success over time and to communicate efforts to prospective students and interested members of the public, the Sustainability Office has coordinated submissions to voluntary surveys from Princeton Review, Sustainable Endowments Institute, and Sierra Club over the last three years. None of these surveys covers the breadth of sustainability initiatives on campus. In 2011, Cornell registered as a Charter Member of the national Sustainability Tracking, Assessment, and Rating System (STARS), which provides a standard set of sustainability performance data that is comparable across institutions. Cornell is currently preparing a submission of baseline data for the STARS system. More information on STARS is available at <https://stars.aashe.org>. In addition to external reporting, the Sustainability Office has also developed an internal database, the Sustainability Information Management System (SIMS) to catalog and track sustainability initiatives for use in internal reporting, media relations, and website content management.

Coordination of Institutional Sustainability Priorities

Cornell has seen a dramatic increase in sustainability-related activities over the last decade. In 2010, the Cornell University Strategic Plan prioritized the stewardship of the built and natural environment and related sustainability initiatives. Currently, sustainability efforts are managed in a relatively decentralized and autonomous fashion. In order to efficiently leverage Cornell's many resources and assets, strong collaborations among campus leadership, faculty, staff, and students, and alumni must be developed and extended. Partnerships among the Sustainability Forum, the President's Sustainable Campus Committee, and the Cornell University Council Committee on Sustainability are critical for successful action. Alumni Affairs and Development, University Communications, the Atkinson Center for a Sustainable Future, as well as several centers and initiatives across campus, are natural partners.

Strategic Recruitment of Faculty, Staff, and Students

Increasingly, prospective students and employees are including campus sustainability efforts in their evaluation of Cornell's educational and employment opportunities. Cornell will continue to target these groups by providing information that details sustainability commitments and areas for engagement. In regard to faculty, the Atkinson Center for a Sustainable Future (ACSF) has launched an initiative to facilitate strategic faculty cluster hiring across three thematic areas: Energy, Environment and Economic Development. ACSF offers bridging and start-up funding directly to colleges, schools, and departments for faculty lines in cross-cutting areas of particular strategic importance to sustainability research at Cornell. These funds finance hires to build on core areas of identified strength within the colleges, expand research capacity, and bring fresh perspective to already dynamic focus areas where Cornell has significant reputation and demonstrated leadership. The selected areas foster interdisciplinary collaboration to address emerging and high priority research needs. The first focus area, formed in late 2008, involves a series of cluster hires in climate change within the College of Agriculture and Life Sciences. In 2009, the Center issued a formal request for proposals to define additional areas for strategic hiring and began a selection process, which resulted in the initiation of the Environmental & Energy Economics & Sustainable Enterprise focus area. Collaborating with the

College of Engineering Energy Institute's related faculty cluster hiring program in Energy Systems has created additional opportunities. Strategic faculty cluster hiring is part of a long range plan by Cornell to reinforce the university's comparative advantage in specific, problem-focused areas of sustainability scholarship, leading to increased productivity of existing faculty, staff, and students and widely recognized national and global pre-eminence in the field.

Developing a “Living Laboratory” through Student, Faculty, and Staff Partnerships

The President's Sustainable Campus Committee, the Atkinson Center for a Sustainable Future, and the Sustainability Office have each embraced the goal of making campus a “living laboratory” for sustainability. To develop a living laboratory for sustainability will involve courses and research that impact campus operations, along with student leaders partnering with staff units to develop plans for increased sustainability performance. These efforts will require increasingly sophisticated partnerships among students, staff, and faculty. The PSCC Focus Teams were designed specifically to enable these types of partnerships. The Focus Teams serve as a communication channel between constituencies as they set goals and targets as well as implement programs in the ten focus areas.

Evolution of Climate Action Plan within a Changing Environment

The 2009 Climate Action Plan (CAP) was initially based on the best knowledge of fiscally responsible carbon-reducing operations and research opportunities to demonstrate new technologies in 2009. Given that energy prices, government regulations, and research opportunities are constantly changing, the CAP will remain a living document that requires regular assessment and updates. As required by our commitment to the American College and University Presidents Climate Commitment, Cornell will assess these changing conditions along with our accomplishments to date and provide an updated CAP every two years. The PSCC Climate Focus Team will facilitate the review and updating of the CAP with participation from staff, students, and faculty from other Focus Teams and across campus.

Developing Leadership for Sustainability

Given the breadth and complexity of Cornell's sustainability commitments, the university cannot approach the work as technical operational endeavor. There is a clear need for the development of staff, student, and faculty capacities to advance sustainability as both individuals and members of the campus community. The People Focus Team will play a new and vital role in the advancement of “people-centered” sustainability approaches that strengthen leadership capacities and promote sustainable choices in both personal lives and campus-related activities. The People Focus Team will support existing partnerships between Human Resources, Cornell United Religious Work, University Communications, Cornell Outdoor Education's Team and Leadership Center, and student life-focused units of Student and Academic Services. These partnerships will be critical in the development of resources for sustainable lifestyle choices, programs for student club leaders, orientation and ongoing training for students and staff, residential programs, departmental Green Teams, and additional community-building activities for staff and students.

Communicating and Leveraging Success in a Networked World

Effective and engaging communication with numerous university stakeholders has become a core strategy of Cornell's sustainability efforts. It is critical to maintain links between a suite of web sites, including the sustainability bridge page, the sustainable campus site, the Atkinson Center website, and the web presences of many other sustainability organizations. Websites alone are not sufficient to fully engage the diverse campus community and its stakeholders around the world. The PSCC Communications Team with direct leadership from University Communications will provide coordination of communication initiatives and activities that bring the stories of sustainability and opportunities for engagement to the broadest audiences. In collaboration with the PSCC Communications Team, the Sustainability Office has initiated a major website redesign for the Sustainable Campus website to make the website a portal for engagement and learning for the campus community. In addition, the PSCC Communications Team will work with various units and organizations to optimize newsletters, CornellConnect, Facebook, and Twitter to promote and engage people in sustainability.

Partnerships to Advance Sustainability outside Cornell

As the land grant university for New York State, and with a mission to impact the well being of people around the world, Cornell has a critical role in advancing sustainability outside of the Cornell campus. Through a combination of public engagement organizations, partnerships, and networks, Cornell's advancements in sustainability can be leveraged to have a much broader impact. Cornell has a leadership role in each of the following areas, and must continue to be a proactive leader and identify the highest impact opportunities that can be served by Cornell's diverse human, intellectual, and financial resources:

Regional

- Ongoing membership in the Tompkins County Climate Protection Initiative
- Support for the development of downtown Ithaca Sustainability Center
- Participation in Sustainable Tompkins' Bioneers Conference, Energy Summit, and Earth Day

Statewide

- Ongoing leadership by Cornell Cooperative Extension in the areas of sustainable food systems, nutrition and health, climate and energy, and natural resource management
- Membership in the New York Coalition for Sustainability in Higher Education and support for the Coalition as voice on sustainability to state elected officials

National

- Support and extend college and department briefings for federal officials on the science of sustainability
- Membership in Association for the Advancement of Sustainability in Higher Education (AASHE) and the American College and University Presidents Climate Commitment (ACUPCC), and participation in their respective events and conference

Global

- Evaluate membership in the International Sustainable Campus Network and the United Nations' Carbon Neutral Network
- Continue to engage with United Nations' deliberations on sustainability issues through delegations and side events in the COP (Conference of Parties) and Commission on Sustainable Development processes

Appendix: Partners and Stakeholders

On Campus

- The Sustainability Office, www.sustainablecampus.cornell.edu
- The Sustainability Hub, sites.google.com/site/cornellsustainabilityhub
- Atkinson Center for a Sustainable Future, www.sustainablefuture.cornell.edu
- Centers, institutes, and initiatives, www.sustainablefuture.cornell.edu/partners/index.php
Includes the KAUST Sustainable Energy Institute, Energy Materials Center at Cornell, American Indian Program, Sustainable Global Enterprise, CIIFAD, Africa Initiative, Center for Transformative Action, and more.
- Cooperative Extension Sustainability Programs in New York State, cce.cornell.edu/sustainability/Pages/default.aspx

Regional Partners

- Tompkins County Climate Protection Initiative, www.tccpi.org
- Sustainable Tompkins, www.sustainabletompkins.org
- Tompkins County Environmental Management Council, www.tompkins-co.org/emc/
- Northeast Campus Sustainability Consortium, <http://sustainability.yale.edu/necsc>
- Ivy Plus Sustainability Working Group, <http://sustainability.yale.edu/ivy-plus>

National Partnerships

- Association for the Advancement of Sustainability in Higher Education, www.aashe.org
- American College and University Presidents Climate Commitment, www.presidentsclimatecommitment.org
- Clinton Global Initiative, www.clintonglobalinitiative.org/