



Plymouth State University



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Sustainability At PSU

- Small NH University
- 4,500 students
- Located in Plymouth, NH



Where is Plymouth???





Sustainability At PSU

- Efforts have increased greatly since 2006...
- Initial efforts were isolated and not well publicized...
- Current efforts are well coordinated and involve the entire campus community.



The American College & University Presidents Climate Commitment

- “Top level commitment.”
 - The agreement recognizes the severity of the issue and its anthropogenic origins.
 - The agreement asserts that major changes are needed, and colleges and universities should demonstrate leadership in their regions.
 - These changes benefit students in diverse ways.

<http://www.presidentsclimatecommitment.org/>





Commission for Environmental Sustainability

- Agreement mandates implementation of two or more of the following within two years:
 - Policy for future new campus construction: LEED Silver or equivalent - Done
 - Energy Star policy for all campus purchases - Done
 - Adopt a policy of offsetting greenhouse gases from air travel
 - Facilitate the use of public transportation
 - Within one year purchase 15% of electricity from renewable sources
 - Endowment investments





Langdon Woods



- 350 Bed Facility
- 114,000 sq. ft.
- LEED Gold!





The Primary Goals Are To...

- Conduct a greenhouse gas emissions inventory within 1 year. - Done
- Develop a plan, time line, and interim milestones for making the campus carbon neutral within two years. - Underway
- Take immediate steps to reduce greenhouse gas emissions by implementing at least two actions. - Done
- Integrate the concepts and ideas of environmental sustainability across the curriculum. - Underway





Campus Carbon Calculator

- The Commission has adopted the Clean Air – Cool Planet Campus Carbon Calculator.
- The Campus Carbon Calculator is an electronic MS Excel workbook that takes the energy use, agriculture, refrigerant, and solid waste data and calculates estimates of the greenhouse gas emissions.
- The graphs and other tables created by the Calculator can help us understand the institutional emissions profile, and how it has changed over time.
- The Campus Carbon Calculator is designed to help staff, faculty, students and administrators document and understand the campus greenhouse gas footprint.



Commission for Environmental Sustainability

- Examples of current activities
 - Faculty - Curriculum integration
 - New major in Environmental Science & Policy
 - Across the curriculum working group
 - Students
 - Environmental Task Force
 - Residential Life Competitions
 - Purchasing guidelines and resources, Campus wide events to influence culture



Boyd Science Center



Composition of Commission

- Commission consists of:
 - Professional and Technical Staff
 - Faculty
 - Students
- Commission meets once a month:
discusses updates of sub-committees and
then processes tasks to the appropriate
members



Other Initiatives: Energy Conservation

- To conserve energy the University replaced many roofs, upgraded heating and hot water systems, and rebuilt much of the underground steam infrastructure thus reducing total metric tons of carbon dioxide by 18% from 2001 to 2007
- Many other energy saving renovations are underway:
 - Replacing old top loading washing machines
 - Installing waterless urinals and dual flush toilets
 - Replacing windows in old buildings
 - Replacing lights with T8 lamps and LEDs
 - Installing low flow faucets and showerheads
 - Installing motors with variable speed drives



Waste Reduction/Recycling

- Food waste from campus dining services are given to D'Acres Farm for pig food and composting.
- Prospect Dining Hall has gone trayless in order to reduce the use of water and sewer, propane, electricity, chemicals, and to reduce the waste of food.
- Since the program started we have saved 140,000 gallons of water in 3 months, reduced the use of propane by 27% per meal, we are using 10.3% less electricity per meal, we project a savings of \$2,924 in chemical costs, and an annual savings of \$104,946 in food waste is projected.



Curriculum

- New undergraduate major in Environmental Science & Policy
- Across the curriculum working group which has begun with classes addressing sustainability in the art department and with the creation of the business course, Business and the Environment
- Establishing a scholarship program that would reward students' suggestions regarding the improvement of sustainable practices on campus
- Undergraduate class designed around the renovation of PSU's first eco-house with a focus on sustainable design



Eco-House





Field Study Courses



Australia



India



Iceland



Purchasing Policies

- Adopted an Energy Star purchasing policy for all appliances for which such standards exist, with similar goals for other purchases
- PSU added to their bid process that we prefer using suppliers that follow sustainable practices
- Increased emphasis on buying recycled paper and compact fluorescents and using less paper within all departments



Construction

- Policy that requires all major campus construction to achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) silver certification or equivalent
- Commitment to sustainable design in new and renovated University facilities



Carbon Neutrality

- Partnered with Clean Air-Cool Planet and adopted their carbon calculator tool to assess carbon footprint
- PCES has a draft form of a University environmental policy intended to guide the institution to carbon neutrality
- PSU's Co-Gen plant has a biomass conversion feasibility study underway
- Planning is underway to conduct an assessment of commuters' contributions to the University's carbon footprint



Student and Residential Life

- Participated in national Recycle Mania contest and recycled 7.1 tons of materials in 9 weeks
- Energy saving competition held amongst residence halls
- Sustainability Fellowship beginning in the Fall of 2008: Fellows will work with the Department of Residential Life as part of a proactive educational group to promote awareness and value of sustainable efforts to the on-campus housing community



Reaching into the Community

- Safe Routes to Schools Analysis
- Support for the Town Energy Committee
- District Heating options for downtown
- Campus Shuttle open to any users
- Campus housing requirement for Freshmen and Sophomores



Presidents Commission On Environmental Sustainability



www.plymouth.edu