



Overview of Bowdoin's Climate Commitment October 17, 2014

Climate Commitment History:

- 2007 – President Mills signed the American College and University Presidents' Climate Commitment (ACUPCC)
- 2009 – Bowdoin announced through its Climate Blueprint Report that it will achieve carbon neutrality by 2020 and released a detailed Climate Neutrality Implementation Plan developed by the Climate Commitment Advisory Committee
- 2013 – Sustainability Implementation Committee formed to include faculty, staff, and student representatives
- 2014 – As of June 30, 2014, the College is on track to achieve carbon neutrality by 2020. The College's greenhouse gas emissions were 17% lower in 2014 than the FY 2008 baseline total of 19,153 metric tons.

Significant Emissions-Reducing Accomplishments:

- Completed the repair and upgrade of the underground steam distribution system.
- Completed the cogeneration and boiler replacement project at the central heating plant.
- Converted 81% of identified buildings from higher carbon distillate oil and propane to natural gas.
- Installed a solar thermal system on the roof of Thorne Dining Hall that heats hot water used in the dining hall and in Coles Tower residence hall.
- Implemented numerous lighting upgrades, such as replacing metal halide bulbs in the campus exterior light poles with CFL bulbs and recently retrofitting enough lighting to save more than 500,000 kWhs of electricity annually.
- Implemented an on-line building energy dashboard which allows the campus community to monitor and reduce energy in forty-nine buildings.
- Weatherized many of the worst performing buildings.
- Adopted a comprehensive set of sustainable design standards for all major renovations, including the goal of obtaining LEED silver certification for new construction.
- Retrofitted first-year Bricks with numerous energy upgrades.
- Implemented policy to purchase energy star appliances.
- Expanded purchasing of hybrid vehicles for the College-owned fleet and installed an electric vehicle charging station.

- In partnership with SolarCity Corp., installed Solar PV panels at Farley Field House, Greason Pool, Watson Arena, and the former Naval Air Station property that collectively will provide about 8% of the College's electricity each year. ***Combined with the electricity produced by the cogeneration turbine at the heating plant, approximately 16% of the College's electricity is generated on site from renewable or efficient sources.***

Education, Research and Community Outreach (academic and student) Initiatives:

- Bowdoin's Sustainability Office coordinates the efforts of students, faculty and staff who are working to improve Bowdoin's environmental performance including:
 - Organizing educational outreach programs to promote energy conservation across campus.
 - Expanding the student Eco-Rep program to include one Eco-Rep for each of the twenty-two dorms on campus.
- The Environmental Studies (ES) program cosponsored an environmental justice symposium, and panels on climate adaptation and transportation alternatives; sponsored a Green Career series focusing on topics of LEED design, corporate sustainability, and resilience planning; and cosponsored a series with the Government Department that examined topics ranging from green labeling of businesses, and security dimensions of climate change. ES has also designated environmental student fellowships.
- An annual Locavore Dinner is held each spring and is tied to a larger theme of "Meet What You Eat" that examines the role of local agriculture.
- Green Bowdoin Alliance provides a venue for student leadership opportunities.
- Green Bowdoin Athletes promotes ways in which sustainability can be incorporated into athletic events and programming on campus.
- Developed two sustainability and climate-focused Orientation trips that introduce first-year students to sustainability and the College's commitment to carbon neutrality.

Sustainability Investment:

- From Fiscal Year (FY) 2008/09 through FY 2013/14, the College's operating budget has funded sustainability/energy conservation projects totaling more than \$2.5 million. In addition to funding from the operating budget, the College has spent more than \$95 million on various capital projects that have included LEED buildings with substantial energy saving features such as daylight harvesting, low-flow plumbing fixtures, a white roof, geothermal heating and cooling systems, and heat recovery systems. LEED buildings include Osher and West residence halls, the Sidney J. Watson Arena, and the Peter Buck Center for Health and Fitness.
- Identified numerous energy savings initiatives that, when implemented, produce immediate utility savings and further the College's commitment to achieve carbon neutrality. Examples of projects already completed and funded by utility savings include conversions of oil-fired boilers in perimeter buildings to natural gas, lighting upgrades, and the installation and ongoing enhancement of the Web-based Building Dashboard.

Grants:

- A “Green” Grants Committee, with representatives from the Treasurer’s Office, Academic Affairs, Development Office, and the Sustainability Office, pursues grant and corporate foundation opportunities.
- Efficiency Maine has provided more than \$250,000 of grants towards the solar thermal installations on Thorne Hall, weatherization of two multi-unit rental properties, and upgraded lighting and heating/cooling equipment in a variety of locations.
- Bowdoin has received a \$400,000 grant from the Efficiency Maine Trust to help fund the central heating plant’s new cogeneration system, and more than \$160,000 to help offset the cost of fourteen campus lighting projects that were recently completed.
- Grant funded educational initiatives include three Mellon Global Scholars and Mellon Global Symposia as well as climate research supported by the NSF, NASA and others.

For additional information, visit:

<http://www.bowdoin.edu/sustainability/carbon-neutrality/index.shtml>