

## **Background and Overview**

Bowdoin College committed to become “carbon-neutral” by the year 2020 and released a detailed implementation plan to achieve that goal in fall 2009.<sup>1</sup> The plan focused primarily on an ambitious goal of reducing “own-source” emissions by at least 28% over the 12 years between 2008 and 2020, with the understanding that we would likely need to purchase some carbon offsets in 2020 to achieve the ultimate goal of carbon neutrality.

This serves as the Annual Greenhouse Gas Emissions Inventory Update for Fiscal Year (FY) 2013. Bowdoin's greenhouse gas emissions (GHG) in FY 2013 were 14,920 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e). This is 22% lower than the FY 2008 baseline total of 19,153 metric tons. The balance of this update provides a more detailed explanation of the College's inventory.

## **Summary of 2013 Bowdoin College Greenhouse Gas Emissions**

Bowdoin categorizes emissions into three scopes. Scope 1 includes onsite combustion of fuels, College vehicle use, and fugitive refrigerants. Scope 2

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<sup>1</sup> This initiative was formally launched in 2007, when President Barry Mills signed the American College and University Presidents' Climate Commitment. To achieve this goal, the College developed a Climate Neutrality Implementation Plan in 2009. As part of that plan, the College tracks and reports annually on its greenhouse gas (GHG) emissions relative to the Fiscal Year (FY) 2008 baseline year. The plan is revisited and updated every two years so that Bowdoin community members can measure the effectiveness of strategies, evaluate the financial feasibility of specific projects, and incorporate new technological advances. The 2009 plan can be reviewed at <http://www.bowdoin.edu/sustainability/carbon-neutrality/pdf/implementationplan.pdf> and the first update can be reviewed at <http://www.bowdoin.edu/sustainability/carbon-neutrality/pdf/2011implementationplanupdate.pdf>

encompasses purchased electricity. Scope 3 includes travel by College faculty and staff, daily employee commuting, transmission line losses from electricity usage,

to use a College-owned vehicle. Fugitive refrigerants increased 140% (86 metric tons) compared to FY 2008.

## **Scope 2**

### *Purchased electricity*

Scope 2 emissions were 39% lower in FY 2013 than in FY 2008, a 2,853 metric ton reduction.

*Despite a small 6,000 square footage increase in the size of the campus – and the expectation that, as a rule of thumb, electricity usage would increase approximately 2% per year just as a result of an increase in the use of electronics on campus – electricity purchases decreased in FY 2013 by 6% (1,293,000 kWh) compared to FY 2008. A large factor in the decrease was the first full year of operation of the College’s cogeneration system. A 630 kW*





- Expansion of the voluntary dorm room energy audit program that gives