



The Road to Carbon Neutrality by 2030

A review of Smith College's campus improvements and academic initiatives

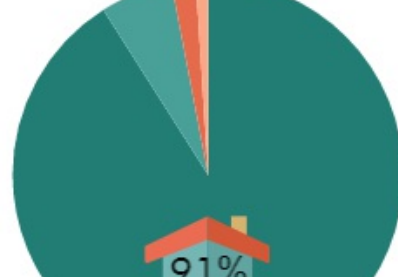
Smith College has made numerous commitments to address sustainability and climate change, including one to become a carbon neutral campus by 2030. The Sustainability and Climate Action Management Plan (SCAMP), published in 2010, outlines the college's path to achieving this goal. While the plan includes reducing the environmental impact of our campus and its operations, it also focuses on academics. Smith understands that our greatest resource is our students. We want to educate women to be leaders in improving sustainability and battling climate change, both here on campus and in the wider world.

This 2016 SCAMP update is a report of current efforts, both operational and academic, and outlines future initiatives designed to help achieve the goal of carbon neutrality by 2030.

Where We Are Now

GREENHOUSE GAS EMISSIONS

91% of Smith's greenhouse gas emissions come from the provision of electricity and the heating and cooling of 100+ buildings. The remaining portion comes from air travel, faculty and staff commuting, and our fleet.



Our emissions have dropped 20% since 1990 levels (27,972 metric tonnes in 2015). Even with the decrease, our current trajectory will not get us to carbon neutral by 2030 without significant campus changes.

Buildings(91%) Air Travel(6%) Commuting(2%) Fleet(1%)



ENERGY & BUILDINGS



Sources of electricity: We generate 70% of our electricity from an on-site plant, purchase 28% from a utility and produce 2% from on-site solar panels.

Cogeneration plant: Our plant, which is run by a natural gas fueled turbine, efficiently produces both steam heat and electricity for campus buildings.

Solar arrays: We have five arrays on campus--Ford Hall, Campus Center, Indoor Track & Tennis facility, McConnell Hall and MacLeish Field Station.

Sources of Electricity



70% from our plant



28% purchased



2% from solar

Living Building: Smith is home to the world's fifth certified Living Building, the Bechtel Environmental Classroom, located at MacLeish Field Station.

LEED certified: Ford Hall, built in 2010, is a LEED Gold science and engineering building; two houses, Cutter and Ziskind, and the Friedman Complex apartments, are waiting for LEED certification.



21.8% of faculty and staff use sustainable commuting options, such as walking, carpooling or biking.

TRANSPORTATION

MATERIALS & WASTE MANAGEMENT

1,914 Total tons of waste Smith diverted from a landfill in 2015. Here's how it breaks down:

1,200 Tons of compost (bedding and manure) from the horse stables

37 Tons of items reused, such as furniture and mattresses

225 Tons of construction and demolition debris were recycled

12 Tons of clothing donated following move-out

223 Tons of recycling, such as bottles, cans, paper and plastic

2 Tons of food delivered to local organizations by the student-run Food Recovery Network

215 Tons of compost (pre- and post-consumer food scraps) from dining halls



For more than 100 years, the Botanic Garden of Smith College has helped students learn both the science and aesthetics of plants. In 2016, Smith was named a Tree Campus USA by the Arbor Day Foundation.

LANDSCAPE ECOLOGY

FOOD

In 2015, 37% of food and beverages served in dining halls were local, community based or 3rd-party verified (such as USDA Certified Organic), up from 22% in 2014.



2009 Water Consumption

Power Plant(13.84%) Campus(86.16%)



45.5 million gallons

WATER

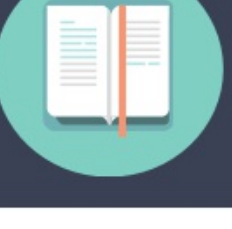
In 2014, Smith used more water than in 2009. Why the increase? Energy efficiency improvements were made to the power plant, which heats and cools the campus. Those improvements use more water. When you exclude the plant, the consumption of potable and non-potable water on campus has decreased by more than 2 million gallons in the same time period.

2014 Water Consumption

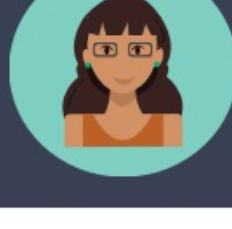
Power Plant(26.74%) Campus(73.26%)



51.5 million gallons



ACADEMIC & CO-CURRICULAR



Smith has taken numerous steps to increase the academic offerings surrounding sustainability and the environment, all of which have a shared goal: to educate women as leaders in developing solutions to these issues.

2010

Environmental Science and Policy became a major.

2011

The Center for the Environment, Ecological Design & Sustainability (CEEDS) moved to its location in Wright Hall. The center focuses on integrating environmental learning into the Smith curriculum. In addition, Sustainable Food became a concentration.

2014

A Climate Change Concentration was added to the curriculum.

2015

104 courses at Smith included sustainability.

There are multiple environmentally-focused student groups active on campus, including:

Eco-Reps

Promote sustainable living and conservation of resources in Smith's student houses.

Green Team

Works to bridge the gap between environmental activism and social rights issue.

Bike Kitchen

Rents bicycles to the Smith community, encourages bike riding as a sustainable form of transportation, and offers bike maintenance classes.

Smith Chapter of Engineers for a Sustainable World

Works on projects on campus, the surrounding community and abroad.

Divest Smith College

A network of students and community members who support divestment from the fossil fuel industry.



What We're Doing Next

While Smith has made numerous improvements since SCAMP was released in 2010, there are still a variety of challenges to address as we strive to reach the goal of carbon neutrality by 2030 and integrate sustainability into the student experience.



CLIMATE ACTION



In 2015, President Kathleen McCartney and the Smith College Board of Trustees formed the Study Group on Climate Change. This group, which includes students, board members, alumnae, faculty and staff, is developing recommendations for the next phase of reaching the carbon neutral goal. A report is expected at the end of 2016 and will likely include adaptation efforts on campus, academic and campus culture programs, and investment opportunities.

CAMPUS AS CLASSROOM

Experiential and applied learning are key components in the college's new strategic plan. As projects are developed to mitigate climate change impacts on campus, students will have opportunities to be involved at all levels--planning, implementing and evaluating.



For more information, contact Ellen Harter Wall, Communications Coordinator: ewall@smith.edu

2010 SCAMP: <http://www.smith.edu/green/docs/SmithCollegeSCAMP.pdf>