

Syracuse University Energy Use and the American College and University Presidents Climate Commitment

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Document story

Syracuse University signed the American College and University Presidents Climate commitment in 2007. The commitment promises to reduce greenhouse gas emissions by mid-century. SU signed the commitment over a year ago. Despite numerous sustainability initiatives across campus meant to lower emissions and reduce electricity usage, there was an increase in energy usage during the fiscal year of June 2007 to July 2008, according to SU total campus gas and electric usage.

The reasons for this increase are associated with the addition of new buildings during the fiscal year 2007 to 2008, including Newhouse III and the construction of the Life Sciences Complex. Other factors include: expanded hours of Bird Library and an increase of students on campus, said Steve Lloyd, SU Chief Sustainability Officer.

The Life Sciences building uses a great amount of energy because it runs on a 100 percent outside-air heating and ventilating system, Lloyd said.

“Which means, none of the air is re-circulated, so you have to condition the air that is used to heat and cool the building,” Lloyd said.

The increase in energy usage was close to 3,000,000 million kilowatt-hours (kWh).

“There are no EPA (United States Environmental Protection Agency) guidelines that I’m aware of for how much energy you can use. You use what you use to heat and cool either comfortably or to ventilate the space,” Lloyd said.

As part of signing the commitment, SU completed an inventory of greenhouse gas emissions. The inventory shows that the main source of greenhouse gases for the university is building operations, which includes electricity purchased, steam and chilled water purchased, and natural gas burned.

The President’s Climate Commitment includes reducing greenhouse gas emissions by 80 percent no later than mid-century, according to the its Web site.

“We believe there will be great short-, medium-, and long-term economic, health, social and environmental benefits, including achieving energy independence for the U.S. as quickly as possible,” says the Web site.

The next step for SU as a part of signing the climate commitment is a Climate Action Plan, which will be completed in September 2009, Lloyd said.

“What this plan will do is outline what SU is going to do to become carbon neutral,” Lloyd said.

The university plans to choose a date, come up with a timeline that carbon emissions should be capped at, and submit the plan to the Chancellor and the board of trustees for approval, Lloyd said. Solutions to reduce carbon emissions may include:

“Anything from lighting and heating upgrades to changing out the University’s vehicle fleet, to electric, to full out composting. There are no decisions yet,” Lloyd said.

Even though the energy usage of SU increased from July 2007 to June 2008, the amount of green power the university uses is beneficial. Although, the EPA does not set energy usage guidelines they do conduct an inventory of how much green power is used by certain universities and colleges, based on their amount of green energy purchased, said Melissa Cadwell, Marketing Manager for SU Energy and Computing Management.

“SU is one of the largest university green power purchasers in the county,” according to the EPA Web site.

Green power consists of solar, wind, geothermal, biomass, and low-impact hydro electricity. SU uses 20 percent green power for electrical needs, according to the EPA Web site. Green power at SU comes from New York State low-impact hydro energy, Cadwell said.

The University of Buffalo is another university in the state of New York that uses green power. UB is measured against New York state (SUNY) universities and operates on eight percent green power.

“UB, state university of New York is purchasing more than 16 million kWh renewable electricity, making it the largest state purchaser of wind power of any New York State agency,” says the Web site.

UB saves nine million dollars a year because of their energy conservation program, according to the UB sustainability Web site. This results from the university’s conservation efforts that have been in place since the 1970’s. Since then, the university has worked to improve lighting, heat recovery, and energy management, according to the Web site. UB serves as a model for other universities in New York State and across the country.

While SU waits to implement a timeline about becoming carbon neutral, small changes are taking place across campus.

“Human resources has come up with a flexible work arrangement, so that people can work from home once day a week, which will help lower our carbon emissions here on campus or they can work four, ten-hour days,” said Melissa Cadwell, Marketing Manager for Energy and Computing Management.

Green days take place over winter break, Cadwell said, which reduces carbon emissions, because no cars drive through campus on those days.

“Parking has also come up with some great solutions to help. They have a carpool program, a ride share program; they also have a bus program, so that people can bus to work instead of drive their car. We’re not just waiting for the Climate Action Plan,” Cadwell said.

Although these changes help reduce emissions, neither Lloyd nor Cadwell spoke about specific actions in place to reduce electricity usage.

“Now somewhere down the future there may be regulation/legislation enacted where certain buildings of certain size or institutions of certain size have to reduce their carbon emissions. That may be coming down the line in a few years, I don’t know,” Lloyd said.

