

Brown is Green



Brown University is committed to making a substantial contribution to creating a more sustainable environment. As an educational institution we have the unique ability to contribute research, foster innovation, and provide a model for environmental sustainability to the community and beyond. Teaching environmental stewardship both by example and through concrete learning will ensure Brown's contribution to a cleaner, sounder global environment.

Reducing Carbon Emissions from Our Physical Plant

Brown University recently announced a comprehensive plan to reduce greenhouse gas emissions. The plan calls for Brown to:

- Reduce its greenhouse gas emissions to 42% below 2007 levels (equaling 15% below 1990 levels) by 2020 for its existing buildings. Brown will set interim goals as soon as feasible and will monitor its progress annually;
- Limit greenhouse gas emissions by reducing energy consumption for all newly constructed facilities to between 25% and 50% below the standard required by state code. New construction will, at a minimum, meet a Silver standard in Leadership in Energy and Environmental Design (LEED), furthering sustainability goals;.
- Reduce greenhouse gas emissions for all newly acquired facilities by a minimum of 15% and as much as a 30%.

Harnessing Intellectual Power

With support from the Sidney E. Frank Foundation and the Office of the President, Brown has provided \$350k to support a pilot program designed to reduce greenhouse gas emissions in the greater Providence area. This pilot program, called Community Carbon Use Reduction @Brown (CCURB) has invited proposals from students, faculty and staff for projects that accomplish the dual goals of helping meet the needs of the greater Providence neighborhoods while reducing greenhouse gas emissions.

Each community-based project should address the following goals:

- Provide vibrant opportunities for learning for all those involved
- Engage non-university groups in thinking about how to increase the sustainability of the greater Providence area and its neighborhoods in a way that is responsive to the needs of the community
- Lead to a measurable reduction in greenhouse gas emissions

Grant applications for CCURB projects are due in March 2008 and grants will be awarded the following month.

Recycling

Brown recycles an average of 35% of campus waste materials. Collection containers are distributed extensively around the campus. Brown, along with 16 other schools, received an Innovation Award from the National Recycling Coalition for participation in the “Recyclemania” competition in 2004. The recycling program was established in the 1970s and Brown students played an instrumental role in establishing a statewide mandatory recycling program in Rhode Island.

Transportation

A transportation office was formed in 2004 to manage a comprehensive transportation demand management program that includes incentives for carpools, and parking policies that discourage single-occupancy vehicles. Significant changes and additions were made to the campus shuttle program. A “Bike to Brown” support group was established to encourage cycling to work. A purchasing policy requires vehicles to be in the top 25% of the EPA fuel economy standards and restricts the purchase of SUVs. Several departments on campus utilize hybrid, natural gas, or biodiesel-fueled vehicles.

In September of 2007 Brown partnered with the local transportation authority to provide free bus transportation, called UPASS, for students, staff and faculty of the University. The goal of this program is to reduce fuel emissions and ease congestion. In the six months since the program’s inception, bus use has increased 189% over the same period last year.

Sustainability Research at Brown

Many departments at the University are engaged in research that will contribute to a more sustainable environment as well as help understand the broad implications of climate change and provide alternative sources of energy. Such research is occurring on the undergraduate, graduate and faculty levels and across disciplines. For example:

- Geologists are looking at the paleontological models for climate change to predict the timing and impact of current warming
- Ecologists and environmental biologists are looking at the impact of climate change on landforms, land use and, agriculture
- An interdisciplinary team of sociologists, biologists and geologists is using the example of Hurricane Katrina to determine the resilience of natural and social systems to major environmental events
- A physicist is looking at safer ways to dispose of nuclear waste at the government’s intended repository for high-level nuclear waste in Yucca Mountain, Nevada
- A chemist is looking at ways to improve direct carbon fuel cells, a promising source of alternative energy
- An engineer is exploring ways to contribute to high performance design and reduce the negative impacts of the built environment
- An environmental biologist is looking at ways to preserve species by moving them to more hospitable locations as temperatures in their habitats increase
- An environmental biologist is working on climate change and its effect on human and animal health. Under study is how changing patterns of migration and changes in species will affect disease patterns and whether changes in soil moisture and nutrient availability predicted by climate models will affect the success of hosts for human disease