

Planet Blue to promote recycling, conservation

By Jim Erickson

News Service

Planet Blue is coming soon to a U-M building near you.

Planet Blue is a three-year, campuswide effort to cut utility costs and increase recycling in about 90 large buildings on the Ann Arbor campus. It's an education and outreach campaign designed to engage the students, faculty and staff in the program.



U-M spent \$111 million on utilities in Ann Arbor during Fiscal Year 2007. Planet Blue aims to cut those costs by about 10 percent, through a combination of energy-saving technologies, building upgrades and behavioral changes by building occupants.

"What we're finding is that when people understand what it costs to heat and cool their buildings, they are more willing to

participate in finding a solution and more willing to change their behavior," says Kris Kolevar, Planet Blue project manager.

"And simple actions, when combined, can have profound effects," Kolevar says.

Planet Blue will provide the community with the knowledge and tools needed to make a difference, Kolevar says. These range from motion-sensing power strips for personal workstations and daylight/occupancy-sensing light switches to low-flow faucets and dual-flush toilets.

On a buildingwide scale, changes could include upgrading the heating, ventilation and air-conditioning system while reducing HVAC operations at night and on weekends.

"There are lots of people on campus who believe that this is something that's really important, but they just haven't known how to do anything about it at work," says Janet Weiss, dean of the Horace H. Rackham School of Graduate Studies. "The Planet Blue initiative gives those people some really specific, expert information about ways in which they can make a difference."

Rackham was one of five buildings included in the pilot phase of the program, which ended June 30. In the coming year, 30 more U-M structures will be assessed by Planet Blue teams, and various energy-conservation measures will be recommended.

About \$5 million a year will be spent over three years, funded by [Plant Operations](#). The University expects to recover those costs — through lower utility bills — less than two years after Planet Blue's completion, says Richard Robben, executive director for Plant Operations.

"Our target of a 10-percent reduction in utility costs is conservative, I think," Robben says. "In some of the five pilot buildings, the savings were significantly higher.

"And the individual schools get to keep any money that's saved, so that's a strong incentive to actively participate."

Planet Blue officially will debut at this year's Energy Fest, Sept. 9 on the Diag and Sept. 11 on North Campus.

Representatives will share information about the project's goals and procedures, along with the schedule for upcoming building assessments. For scheduling information go to planetblue.umich.edu/home.php and click on the "Find My Building" tab.

"We're talking about real reductions in energy consumption, which will lead to decreased carbon dioxide emissions," says Hank Baier, associate vice president for facilities and operations. On the Central Campus, heat and air-conditioning are generated mainly by burning natural gas to create steam.

"And it's not just what we save today," Baier says. "Any savings that are achieved now will keep paying back, year after year, in cost avoidance."

The five buildings assessed during the eight-month Planet Blue pilot phase are Chemistry, Space Research, Rackham, the Fleming Administration Building and the [Institute for Social Research's](#) (ISR) building on Thompson Street.

Many energy-saving actions already have been implemented in those buildings, while other recommendations are under review. Changes include:

- Installation of occupancy sensors for fume hoods in Chemistry Building teaching labs, saving an estimated \$200,000 annually. The hoods operate continuously, even when labs are unoccupied;
- Relocating a computer server room from the basement of Fleming to a climate-controlled data center in an adjacent building, a move expected to cut the building's annual utility bill by \$97,000 or 25 percent. At present air-conditioning in most of the building runs continuously so the server room stays cool;
- Reducing operating hours for HVAC fans in the ISR Thompson Street building, expected to save about \$80,000 annually; and
- Installation of daylight/occupancy sensors for lighting fixtures in six Rackham rooms. If completed, the six-room upgrade would cost \$103,300 and would save \$13,000 annually.

Many of the Planet Blue recommendations require behavioral changes from building occupants that — when multiplied many times each day across three campuses — will result in significant savings, says Anuja Mudali, the program's communications specialist.

"The concept of Planet Blue has not been a hard sell because it's a hot topic right now. Everybody wants to be green," Mudali says. "But the challenge comes when you ask people to make significant changes to their behavior.

"We've found that if you make it easy for people to change, they'll do it."

Planet Blue will provide up to 100 motion-sensing power strips to building occupants, for example. The strips sense when people leave work stations and will turn off electrical devices.

Energy-saving recommendations are tailored to fit the needs of each building. But the Planet Blue team urges building occupants and managers to: heat and cool buildings only when occupied; set thermostats at 68 degrees in the winter and 76 degrees in the summer; avoid the use of portable electric space heaters; keep exterior doors and windows closed; switch lights off in unoccupied rooms; and turn off computers at the end of the day.

Energy-conservation efforts are not new at U-M. In fact, the University won an award from the Environmental Protection Agency for Energy Star-related achievements, which included a \$9 million annual reduction in campuswide utility costs resulting from a \$10 million, one-time investment in energy-saving upgrades, Robben says.

But in many cases, those gains were accomplished without the knowledge of the building occupants and the wider University community.

That may help explain some results from a 2006 ISR survey of more than 1,400 faculty and staff members who work in the five Blue Planet pilot buildings.

When asked to rate the University's efforts to reduce energy costs, only 6 percent of respondents handed out a grade of "very good." When asked to rate U-M's leadership in energy conservation, 5 percent of faculty and staff respondents gave a rating of "very good."

At the same time, 74 percent of those surveyed said they were only "somewhat aware," "not very aware" or "not aware at all" of the University's efforts to conserve energy.

"A very small percentage of the people in these five buildings knew what the University has been doing about energy conservation," says Robert Marans, the ISR professor who led the study.