



North Carolina Aims to Cut Energy Usage

By Mikel Chavers

From simply turning off the lights and negotiating utility rates to tuning up digital thermostat controls and hosting energy-saving competitions among participants, North Carolina aims to cut energy usage in state buildings at least 20 percent by 2008.

In fact, just by performing corrective and preventive maintenance procedures like tuning up HVAC systems, the state is expected to save more than \$700,000 this year alone.

And in a state where energy spending has seen a 33 percent increase each year for the last three years, state officials are eager to reduce—or at least stabilize—the more than \$300 million spent on energy and water utilities a year for public facilities.

Fast Facts

- In July 2002, North Carolina Gov. Mike Easley urged state agencies and public universities to promote energy conservation and save on utility bills.
- The Utility Savings Initiative for State Facilities began in 2002 with start-up costs of \$507,650, and current operating cost are now \$1.04 million for fiscal year 2006–2007—contributing to combined avoided energy costs of nearly \$63 million since 2002.
- The state's energy office holds an annual 14-day Energy Management Diploma series at North Carolina State University to train energy liaisons and facilities managers.
- To date, nearly \$45 million has been identified for performance contracting, where energy savings will be used to pay off major capital projects.

Energy consumption is a real issue for states, said Larry Shirley, director of the state energy office. “They’ve got to get a tourniquet and stabilize it,” he said.

That tourniquet has taken the form of a special program used to help reduce energy consumption in state buildings and other facilities, so the state government can lead in the environmentally friendly effort by example. The program, **Utility Savings Initiative for State Facilities**, is a winner of one of CSG’s Innovations Awards.

A central aim of the program is to get state agencies and public universities to reduce the amount of energy they use by 20 percent over five years, averaging 4 percent a year. Last year, 66 state agencies, community colleges, public universities and affiliates participated in the effort. The state has saved more than \$62 million in utility costs since the program’s inception.

Take the 9,000-student Western Carolina University in the small town of Cullowhee, N.C., for example. The university has reduced energy consumption by at least 30 percent since the 2002–2003 fiscal year when the statewide program began, said Lauren Bishop, energy manager at the school.

Bishop acts as a leader for a “conservation awareness team” in the program. In that position, she is charged with getting students and faculty excited about saving energy.

“A lot of times folks like to look at the bottom line,” Bishop said. “But I like to bring in the educational component.”

There’s been so much education and activity from these conservation awareness teams that the initiative’s manager, Len Hoey, has taken to calling them conservation action teams instead.

The action has since spread beyond state colleges, universities and community colleges to reach the K–12 public schools.

The Nash-Rocky Mount Public Schools saved more than \$1 million per year in tune-ups and other measures for the last two years, Shirley said. The school system used simple maintenance procedures to make sure the digital systems controlling the HVACs were working correctly, what Shirley calls a “quick payback item.”

Those kinds of measures, he said, required an investment of about \$1,000 per building, but resulted in much larger energy savings.

The program also provides an innovative way to fund large capital improvement projects for state agencies. Using the concept of performance contracting, the energy savings realized are used to pay off major renovations and other capital improvements. In recent years such performance contracting wasn’t allowed in light of a tighter budget situation, Shirley said.

The Museum of Art in Raleigh was the first project to use the new performance contracting, he said. That project added new equipment to maintain the comfort and humidity levels of the building, saving the museum 54 percent on its energy bill and costing about \$5 million for the improvements, Shirley said.

In fact, the program as a whole has been so successful that this year North Carolina’s legislature voted to extend its standards. With the passage of Senate Bill 668, the goal is for all state buildings to reduce energy use 20 percent by 2010 and 30 percent by 2015.

“And this is because the program has been successful,” Shirley said. “It took our program and codified it.”