



LEARNING WITH A PURPOSE

Energy project provides real-life learning experience for students

Story and photos by Nicole Carlson

A project that originated as a supplement to a sixth-grade energy unit last year has morphed into a continuous energy-savings endeavor for students in a western Colorado town. As a result of hard work and dedication by the students, teachers and faculty at Hotchkiss K-8, the school is now reaping the rewards in the form of energy and dollar savings through the installation of a number of energy-efficient lighting fixtures.

The project began last year after the sixth-grade classes of Tucker Moore and Anita Evans decided to take the traditional energy unit lessons one step further by participating in a nationwide environmental competition. Motivated by Disney's Planet Challenge, a project-based environmental competition for classrooms across the U.S., the students set forth to make a long-time contribution to the school.

Once the decision to take part in the challenge was made, the students took the lead, writing letters to philanthropic organizations across the country and applying for grants to raise funds to support the project. They also solicited local residents and businesses.

"Our goal was to make everything as applicable as possible so the students can see learning has a purpose," said Evans. "And the students thought it was great. They really wanted to make an impact."

And that's just what they did, raising more than \$9,600, which was put toward the purchase of 150 four-foot light emitting diodes (LED) tube lights. The lights were installed in hallways, the cafeteria and two bathrooms.

"We wanted to focus on areas where the lights stay on most of the night, like the hallways and cafeteria," said Emily Bagwell, a seventh grader who participated in the project last year.

The school district also supported the project by funding a weekly breakfast each Friday during which time the participants provided project status updates. "The district thought it was great for the kids to learn through real-life lessons," said Evans.

In addition to the funds raised, the school applied for and received rebates that covered one-third of the cost to replace additional lighting, which they used to continue the project into the current school year. The school's power provider, Delta-Montrose Electric Association (Montrose, Colo.), and Tri-State both contributed to

the project. Tri-State's contribution was provided through its Energy Efficiency Products program.

"It was pretty amazing that the kids kept their energy up all year," said Evans. "In fact, it was hard to get them to stop fundraising. We reached a point where we had to just order the lights." The project was such a success that it's being continued into the 2011-2012 school year with the current sixth-grade class picking up where last year's class left off.

With the hallways and cafeteria now outfitted with LEDs, the students are moving on to the library area, where they hope to replace 78 incandescent recessed lights. At the time of a visit to the school last fall, they had yet to make a decision, but had narrowed it down to three types of LEDs.

Although the seventh grade may be finished with the fundraising aspect of the project, their work continues. This year, they are following up to all who donated to the project during the 2010-2011 school year, including the town council, which was among the first to donate. Additionally, the students are calculating energy and cost savings as a result of the LED installations.

Beyond energy lessons, the project strengthened a number of skills for the students, including presentation, critical thinking and practical life applications. The success of the project was also recognized by the FORE Alliance, a western Colorado-based organization that encourages public participation in energy savings.

"We learned a lot about how people use energy," said student Lacey Rodriguez. "Everybody is using it but they don't know how much. It's a big problem and we wanted to help out and make a difference and since we worked for it, it means more than just something we read in a textbook."



Hotchkiss, Colo., teacher Anita Evans and Marshall Collins, Delta-Montrose Electric Association board member, are surrounded by last year's sixth graders who raised more than \$9,600 for energy efficiency lighting at the school.

Research and Development



Drilling activity at carbon capture test site

Major drilling activity took place earlier this year on Trapper Mine property, part of the process of assessing the carbon dioxide sequestration potential for northwest Colorado, the Colorado Plateau and the Southern Rocky Mountains.

The drilling is part of a three-year project to evaluate the ability of the region's subsurface rock formations and geologic structure to provide a safe, long-term option to store CO₂, a greenhouse gas produced as a byproduct during the energy production process at coal-based power plants.

The Rocky Mountain Carbon Capture and Sequestration initiative is a partnership comprised of Tri-State, the Colorado Geological Survey, the Utah Geological Survey, the Arizona Geological Survey, the New Mexico Bureau of Geology, Schlumberger Carbon Services and the University of Utah. The project is largely funded by a grant from the Department of Energy's National Energy Technology Laboratory.

SUMMER

In our next issue . . .

Tri-State recently signed a 20-year power purchase agreement to buy the electricity from a new, yet-to-be constructed 67-megawatt wind farm. The new facility will be built on a 5,200-acre site in northeast Colorado's Logan County, within the service territory of Tri-State member co-op Highline Electric Association. Learn more about Tri-State's latest source of renewable energy in the summer edition of Network.