



Case Study: Glenwood Sewing Center, Glenwood Springs

By Cam Burns & Suzie Romig/CLEER



New Lights, Windows, and Air-Sealing and Conditioning Help Glenwood Sewing Center Save

When Sandy and Bob Boyd had a series of energy efficiency upgrades done in their business the Glenwood Sewing Center, they had little idea how much energy they'd save in subsequent years.

"It's not just the energy cost savings that are impressive," Boyd said recently. "Since we replaced the windows and rearranged our checkout and work area at the front of the store, the level of comfort has improved dramatically. Before we upgraded the storefront, it was way too cold in the winter and way too hot in the summer and we couldn't spend time in that part of the store."

The Boyd's adventures in energy efficiency began in 2009, when they applied to be a part of a pilot commercial efficiency program that was funded by Garfield Clean Energy (the New Energy Communities Ini-



*Glenwood Sewing Center's basement classroom has new lighting.
Photos by Cam Burns*

tiative from the Department of Local Affairs) and the Glenwood Springs Electric Department, and implemented by CLEER.

The Sewing Center completed various energy-related upgrades in early 2010 that included air sealing the building, upgrading the lights, installing a programmable thermostat and replacing their old air conditioner with an evaporative cooler. After one year, their annual gas bills had dropped by roughly \$1,300, or 30 percent. The electric bills went down about 10 percent after the 2010 upgrades.

The Boyds have operated the full-service sewing business since 1977, and they knew when they purchased the 124-year-old building on Grand Avenue in 1994 that they would have to do extra maintenance and there'd be energy-use issues. But the quaint building fits their needs and is in a great location.

Lessons Learned

- New T8s avoid the "flickering fluorescent headache factor"
- Better lighting can help sales
- Employees are more comfortable
- Thermal imaging can help find hidden energy leaks

The Upgrades

- Replaced 50-year-old fluorescent lamps with electronic T8 lamps
- Better air sealing
- **\$1,800 savings in energy use per year!**

Through the pilot program, the 9,000-square-foot Center got a free energy audit by SGM in Glenwood Springs in late 2009. Thermal imaging of the walls showed all sorts of air leaks. "We never would have had access to find out exactly where all the leaks were and which ones were the worst," Sandy Boyd said. "These old buildings can just suck up money."

SGM and Garfield Clean Energy made recommendations for upgraded lighting, air sealing, replacing the air conditioner, better windows, and replacing a circa 1905, formerly coal-fired boiler.

In early 2010, Nordsiek Electric replaced old eight-foot-long bulbs and T-12 magnetic ballasts that were more than a half-century old with new energy-efficient T-8 units. The T-8 bulbs also last longer and don't visibly flicker like the older bulbs.

"The new ones perform well, they make very good light, and they don't make as much noise as the old ones did," Boyd said. "The kind of business we're in we need a lot of really good light."

Contractors caulked windows and replaced aged window woodwork. An antique freight elevator shaft was insulated, the rubber seal on the elevator door replaced, and an air seal on the alley door was tightened up.

In summer 2011, the Boyds again enlisted the assistance of GCE to assist in reviewing options for replacing their storefront windows. CLEER's Energy Coaches connected the Boyds with the Downtown Preservation Association who was providing grants for façade improve-

ments. By connecting efficiency with façade improvements, financing the windows became realistic for the Boyds. Their Energy Coaches helped the Boyds select a Low E glass from Elmer Glass and the Boyd's contractor replaced the single pane storefront windows and the windows in the top floor. To further improve the storefront, they installed awnings that provide protection from intense afternoon sun on summer afternoons and complement the street aesthetic.

Thanks to these additional upgrades, they have lowered their gas bills by another roughly 10 percent. Today, the Boyds are spending about \$1,800 less on energy per year than they were before making the upgrades. In addition, staff and shoppers are more comfortable as temperatures have been regulated throughout the building.

"The new evaporative cooler has made 100 percent difference in the comfort we have during the summer," Boyd said. "And our customers notice that when they come in, too. Our old cooling unit was not all that great. It was at the back of the building so the front was always hot."

The Boyds had \$27,000 in work done by local contractors, and received a total of \$13,000 in rebates from the City of Glenwood Springs Electric Department as part of the pilot program and the Garfield Clean Energy Challenge program for the 2011 measures. The Downtown Preservation Association provided \$5,000 for the windows and awnings.

Boyd encourages other business owners to join the Garfield Clean En-



ergy Challenge and take advantage of the opportunity to work with an Energy Coach to improve the efficiency of their business. In addition, business owners can look for the simple things they can do each year to save on energy bills. For example, she replaced incandescent bulbs with compact fluorescent bulbs and changed the exit light to an LED lamp.

"As people and business owners, we all gripe about our bills," Boyd said. "We just don't get around to acting on the things that could be done. Some things that you can do are really simple and not that expensive. Without CLEER's guidance and rebates, none of this would probably have happened."

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