GARFIELD CLEAN ENERGY Challenge!

Case Study: Sopris Liquors, Carbondale

By Amy Hadden Marsh/CLEER Correspondent

Sopris Liquor and Wine: Guilt-Free, Well-Lit Shopping

When you walk into Sopris Liquor and Wine in the Carbondale Plaza at the southeast corner of Highway 133 and Main in Carbondale, one of the first things you notice is a display of rosé wines. The pinot noirs, couvée l'astrées, and Italian rosatos stand out among aisles and aisles of liquor. But, it's not the arrangement of the bottles or the size of the display that attracts attention; it's the color of the wines. A reflective LED spotlight installed in the ceiling makes the soft purples and muted pinks sparkle. "That's an LRP-38 spotlight equivalent to 75 watts ," said Terry Kirk, owner of the store. "It uses 11 watts."

The spotlight is one of several upgrades Kirk has made to boost the store's energy efficiency. Kirk also built the Plaza, which is home to the 7,500-square-foot liquor store. The Plaza is well-insulated, said Kirk, but his store experienced huge utility bills. So, in 2009 he decided to cut costs by going green.

He started on his own with the beer cooler. At 1,200 square feet, it's the largest in the Roaring Fork Valley. "That's a lot to cool," said Kirk. Two large motors sit on top of the cooler. They chill the beer but also generate heat that Kirk believed could be put to use.

He installed exhaust fans that send the heat outside in summer, reducing air-conditioning costs. In winter, the fans are shut off and heat from the motors is used to warm the store. On a cold January day, the temperature inside the store is comfortable and it's all from recycled heat and the afternoon sun, spilling in through a south-facing door and windows. "We haven't turned on the heat all day," he said.

These changes significantly reduced his natural gas bill and inspired him to do more. But, he said, he couldn't have done it without CLEER (Clean Energy Economy for the Region), a Carbondale-based clean energy non-profit organization that implements efficiency programs on behalf of Garfield Clean Energy (GCE). The Garfield Clean Energy Collaborative is an effort to build the clean energy economy, while leading by example to increase energy security through widespread develop-

A technician installs new lighting at Sopris Liquor and Wine. Photo Rob Morey

The Upgrades

- Lighting was upgraded with more efficient ballasts and bulbs
- Refrigerated display cases have motion-activated lighting
- Ventilators send hot air generated by the cooler out of the building in summer and into the building in winter

Lessons Learned

- There are many unusual technology applications (e.g., coolers with motion sensors) that can help trim energy use
- The more efficient lighting makes the shop more appealing and improves product displays
- Energy audits are key to identifying specific upgrades

ment of energy efficiency and renewable energy. Through GCE's Clean Energy Challenge for Businesses, Kirk was able to make significant changes in store lighting that have boosted business and saved money. "The rebates that are provided were the deal-maker," he explained.

CLEER Energy Coach, Rob Morey, suggested starting with a whole-building energy assessment from Xcel Energy. After reviewing the report, it was decided to explore lighting improvements further by getting a free lighting assessment through Franklin Energy, which administers Xcel's Small Business Lighting Program. The report detailed recommended retrofits, associated energy savings and potential rebates from the utility. Kirk worked with Morey to decide what lighting improvements to start with, collected bids from contractors, and assessed how rebates would affect his net cost. Once the budget was established, work began with the overhead store lighting, switching out 34 four-lamp fixtures with compact fluorescent tubes with 25 three-lamp fixtures with higher efficiency T-8 technology and additional spotlights scattered throughout the store.

Then, the team went to work on improving the lights in the beer cooler. Typically, the inside of a beer cooler is lit all the time whether a customer is actually standing in front of it or not. That means lots of wasted energy and money.

Now, Kirk probably has the Valley's only blinking beer cooler. Here's why. A cooler section lights up only when a customer is standing in front of it. Movement censors control LED lights inside each section that stay on as long as a customer is present. If no one's in front of the cooler, the lights turn off automatically after about two minutes.

Left: Barb Courtney serves a customer under the new lighting. Right: Stocking the cooler. Photos by Cam Burns

The lighting is easy on the eyes as well as on Kirk's wallet. The total bill for the upgrades was just over $13,000. With rebates from Xcel (just over $4,000) and $5,000 from GCE's Energy Challenge Program, Kirk paid less than $5,000 and it's estimated he'll save more than $2,000 in annual energy costs.

"Where this becomes very impressive is that in just over three years Kirk's energy savings will have paid for his lighting upgrade," said Morey. "After that, it's all gravy."

"If you're looking at a payoff of 10 or 15 years, that's one of the things that keep the business community from jumping into that," he said. "Garfield Clean Energy's program and rebates, Xcel's rebates, and CLEER itself made it much more exciting for us and, you know, viable." Kirk hopes to add other changes in the future, including automated cooler motors and lighting control.

But, the upgrades are not just about saving money. For Kirk, it's an ethical decision. "We try to be energy conscious because that's our community," he said. "Besides having self-fulfillment and feeling good about what you do, it's a payback to the community."

And, he says if customers notice the merchandise instead of the lights, it's better for business. That's why you can taste a rosé at the front of the store without popping the (recyclable) cork.

Garfield Clean Energy/CLEER
520 S. Third St., Ste. 29
Carbondale CO 81623
970-704-9200
info@cleanenergyeconomy.net
www.cleanenergyeconomy.net
www.garfieldcleanenergy.org