

Case Study: Spirits of New Castle, New Castle, Colo.

By Cam Burns/CLEER



Spirits of New Castle's efforts to save energy produce other benefits

Above the front door on the tiny old building that houses Spirits of New Castle in downtown New Castle is a sign that says, "coldest beer in the west." Now, after a major lighting retrofit inside, Spirits of New Castle also has some of the most appealing beer in the west.

"People come in and they say, 'wow, you've cleaned up your store,'" said Spirits owner Jim Wirt. "They say, 'what did you do? Did you wipe your glass off? Or what have you done?' They think we've cleaned the glass and they think we've cleaned the store. It's an amazing response. I'm glad to hear it."

It wasn't exactly the response Wirt expected but he'll take it. Many studies have found that higher quality lighting makes customers more comfortable, and more comfortable cus-



Levina Miller works the front counter of Spirits of New Castle.
Photos by Cameron M. Burns

tomers equate to better sales. A shopping mall in Virginia attributed \$1 million in increased sales to a retrofit and better lighting (see <http://www.nlb.org/index.cfm?cdid=10418>).

Although the 1,000-square-foot store is unlikely to see those kinds of increases, every bit helps. Wirt de-

cid to replace the old fluorescent lighting with LED lighting during the summer of 2013. As an electrical

Lessons Learned

- Modern, energy efficient lighting can boost retail sales
- Rebates are available for most lighting retrofits, commercial and residential, as well as many other upgrades

The Upgrades

- New LED lighting throughout the store
- A new cooler motor that reduces energy use by a factor of 7

contractor, Wirt knew T-12 lamps were being phased out. There were quite a few T-12 lamps in the coolers, Wirt said, as well as six magnetic ballasts “and they had to produce a lot of heat.”

Wirt, who has owned the business with his wife Kristi for 8 years, did the retrofit himself. Lighting retrofits in any actively operated store aren't easy because of the products on the shelves and in the coolers. Jim Wirt worked in the early mornings and by 10 am when the store opened, he'd finish up for the day.

“It's just in the coolers,” he said. “There are seven doors. We also have a two-door cooler and we put it in there as well.”

The better lighting isn't the only thing making the beer more appealing. Because of the limited space in the coolers, Wirt had to put the cooler lighting toward the back of the beer racks. In order to not block the light, he's found that taking cans of beer from inside 12-pack cartons and placing the cans towards the front of the racks also looks more colorful and is more appealing to customers. “The guys that rep the products are pretty pleased with it,” Wirt said.

Wirt decided against adding motion sensors—as some stores are starting to do—because of the layout of the store. It's basically a single aisle, and people are nearly constantly walking back and forth past the coolers. Motion activated lights would end up on all the time anyway, he said.

The installation and lighting cost \$3,176. The Wirts received a rebate

from Xcel for \$1,017.50, and CLEER, Clean Energy Economy for the Region, which runs the Garfield Clean Energy Challenge, gave the Wirts a rebate of \$570.

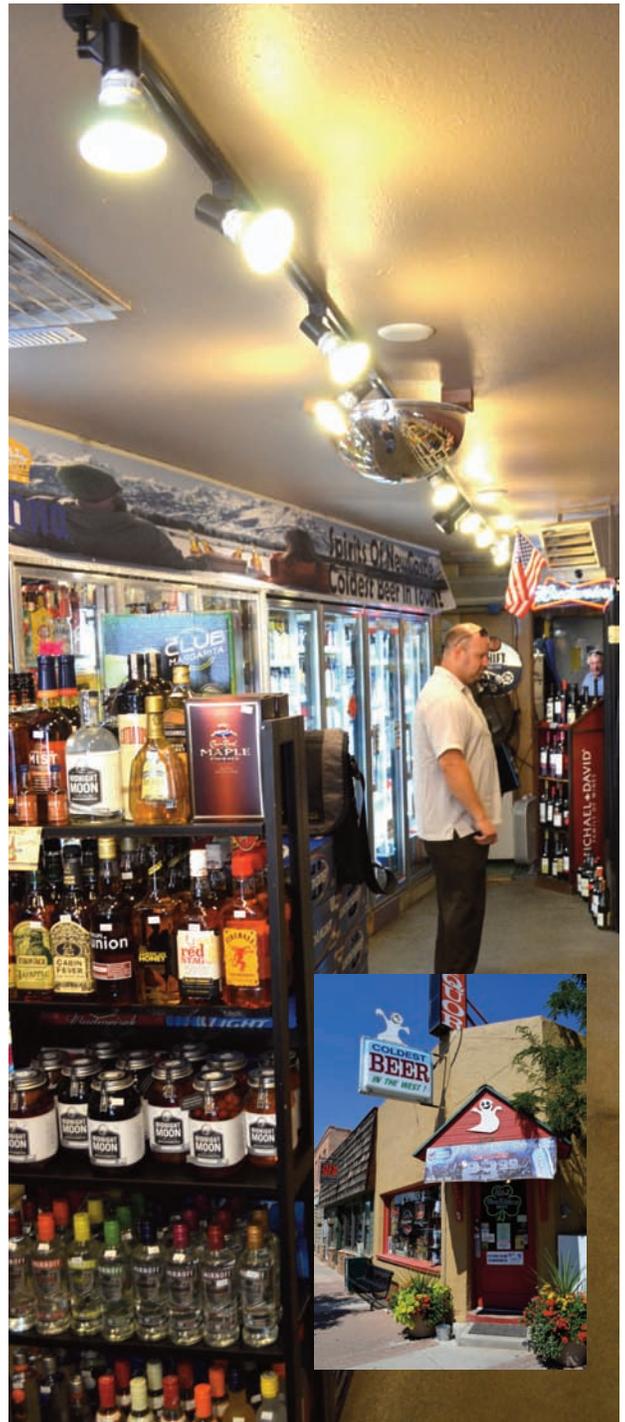
Prior to the lighting upgrade, Ryan Mercer of Franklin Electric did an audit on the store. Mercer's estimate for energy savings was 2,531 kilowatt hours a year.

Within just a few weeks of the upgrade, Jim Wirt said his electric bill was already noticeably lower.

“So far our efforts reduced our electric bill by \$75.27 and 900 kilowatt hours,” he said. “Next month should be better.”

More recently, Frigidwize replaced four motor in the Wirts' large cooler with more efficient models. The new motors and installation cost \$1,086, and the Wirts got a rebate from CLEER for \$543. The new motors are expected to save the business about \$70 per month.

After all their recent work, the Wirts are glad to be saving energy, but they're even happier about how the store looks. “The sales people that are coming in and talking to my wife and the sales girl up front have all said the same thing,” he said. “They say ‘wow.’”



Above: A customer searches the well-lit shelves in the single-aisle store. Inset: “Coldest beer in the West.”

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