



# Case Study: Glenwood Hot Springs

By Bob Ward/CLEER



## Glenwood Hot Springs Adopts Numerous Energy Efficiency Upgrades at Pool, Hotel

The management team and staff at Glenwood Hot Springs, the oldest continuously operating business in the town that shares its name, is looking to the future with an ongoing, evolving program of energy-efficiency upgrades for its various buildings.

In collaboration with Clean Energy Economy for the Region (CLEER)—a Coloradale nonprofit that manages the Garfield Clean Energy Challenge—and Glenwood Springs electric department’s energy-efficiency efforts, employees and visitors to the Glenwood Hot Springs and Lodge facilities are seeing better and spending less. The lighting improvement project, completed earlier this year, spent \$20,819 on energy-saving light fixtures and



Glenwood Hot Springs Facility Manager Gary Bosco. Photos by Bob Ward

bulbs throughout its complex of buildings just north of the Colorado River. More upgrades are planned for next year as well.

Facility Manager Gary Bosco says the upgrades grew out of a 2009 energy audit by Glenwood-based engineering firm SGM. The report offered 78 recommendations for saving energy, and the business has so far completed 34 of the easiest and most cost-effective changes at its pool complex and nearby lodge.

More recently, as one of the Glenwood Springs electric department’s

largest users of electricity, the Glenwood Hot Springs was contacted by one of CLEER’s “Energy Coaches” about ways to conserve power and take advantage of rebates on certain improvements. After reviewing the

### The Upgrades

- Lighting was upgraded with more efficient ballasts and bulbs
- LED lights in Sports Shop save 84 percent in energy over previous lights
- Nearly all incandescent lighting was removed

### Lessons Learned

- There are many ways to save energy; SGM suggested 78!
- Energy-efficient lighting creates a better experience for employees and guests
- Some lighting upgrades will pay for themselves in a few months

energy audit, touring the facilities and talking about budgets, it was decided that improving lighting was going to be a wise investment. Rob Morey, CLEER Energy Coach and Program Manager, directed Bosco to a pool of local contractors to have the work competitively bid. Glenwood Hot Springs management chose Flatops Electric, which performed the work in February.

The Energy Challenge program provided a \$5,000 rebate on the project through the City Electric Department, cutting the Glenwood Hot Springs' out-of-pocket cost by roughly 25 percent.

"Thanks to the increase in efficiency work in the region, we have a number of local contractors who have learned how to include efficiency work in their business models, and we're proud to have a growing pool of qualified contractors in our program," Morey said.

Among the many outdated lights at the 126-year-old business (the complex has 76 different kinds of bulbs in its multiple buildings) were the T-12 magnetic ballast lamps in the kitchen, laundry room, and other work areas. According to Bosco, newly installed T-8 electronic ballast bulbs provide a 30 percent energy savings over the old T-12s, and employees love the non-flickering replacements.

"They're not so dull," said laundry room employee Mary Flanigan. "They're brighter, more vibrant," added her colleague, Kathy Webb.

The Sports Shop has benefited from eight-watt LED bulbs that provide an 84 percent savings over the



*In the laundry room, Mary Flanigan appreciates the new T-8 electronic ballast bulbs, which provide a 30 percent energy savings over the old T-12s and non-flickering light.*

old halogen bulbs and should help keep the retail space noticeably cooler in the summer, Bosco said.

Janet Rickert, assistant manager at the Sports Shop, has long wanted brighter lights to display merchandise, but higher-watt incandescents would have warmed up the shop. "This is the best of both worlds," she said. "We get the additional lighting, but there's no effect on the temperature."

The various upgrades are expected to pay for themselves in anywhere from a few months to roughly 10 years. Especially impressive was the conversion of 65-watt floodlights in the lodge hallways and elevator areas to compact fluorescent bulbs. According to Bosco, the new CFLs are expected to save the business \$21.90 per bulb in energy alone, plus an additional \$1.75 apiece in annual maintenance costs because of their longer lives.

"Basically there are no more incandescent bulbs in the lodge now, except for the wall sconces and chandeliers in the lobby," he said. The only incandescent bulbs left at

the pool complex are in the Spa of the Rockies, where specific lights help create a relaxing atmosphere. The lighting upgrades are only the latest energy-efficiency move at Glenwood Hot Springs, where the geothermal heat provided by the main spring already helps to melt snow, heat buildings, and heat tap water. Recently, the business replaced its boilers and HVAC chillers with new, efficient models, and has begun a systematic replacement of its water pumps.

All of these moves are good for the environment and, in the long run, less expensive. And that, Bosco emphasized, "has greatly assisted the Glenwood Hot Springs with one of our main goals: to continue to make an affordable, safe, and fun experience for all our guests."

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