



Case Study: Elder Trucking, Rifle

By Bob Ward/CLEER



Rifle Trucking Firm Employs Unique Solutions for Cutting Energy Use in Trucks, Buildings

Everybody's electrical costs go up in winter, but few people's bills jump the way Ed Elder's do.

Elder's firm, Elder Trucking, owns a fleet of diesel-powered trucks, and in order to start those vehicles on cold winter mornings, Elder must heat the engine blocks every night. Imagine 30 electrical cords extending to 30 large semi trucks and charging a heating element in each motor—an element much like the one in your kitchen stove.

"There are times in winter when those heaters are going every day and we're probably over \$2,000 [per month] in electricity," Elder said, shaking his head.

Last year, Elder Trucking joined

The Upgrades

- Added timers to engine block heaters
- Outdoor sodium lighting was replaced with more efficient LED lights
- In the shops, 400-watt floodlights were replaced with high-output T5 lamps
- **Ed Elder expects to save \$1,000 a month on electricity at least**



Ed Elder with a few of his trucks. Photos by Bob Ward

the Garfield Clean Energy Challenge and with the help of electrical contractor Charlie Terrell and Holy Cross Energy, Elder recently installed a timing system on his engine block heaters that should cut his winter power bills in half.

"They'll start at midnight and shut off at noon," Elder said. "I'm hoping to get those bills down to three digits."

The project was finished last March, at the tail end of a mild winter, so Elder doesn't yet know how much energy and money he'll save.

But he has other energy-saving factors in his favor. In addition to the engine block heaters, he also made some energy-efficient lighting improvements—first to the exterior

Lessons Learned

- A seemingly big investment in efficiency can be paid off quickly with decreases in operating costs
- Sometimes the most effective energy upgrades are extremely "low-tech" (like timers on engine block heaters)



Left: Ed Elder holds up a heating element and cord used to warm each of the diesel engines in his 30-truck fleet. Right: In his tire shop, Ed Elder was able to reduce the number of light fixtures from nine to five, and reduce the number of bulbs from 36 to 20, and still get better-quality light.

lighting around his property, and second in the shops where his crew maintains and repairs the truck fleet.

Elder Trucking has been around since 1996, hauling gravel, asphalt, water and other materials to build roads for the oil and gas industry and serve the communities of Western Garfield County. He occupies a sunny, 15-acre lot near the Garfield County Airport.

Scattered around Elder's office, shops and parking areas are 16 light fixtures that, until recently, contained sodium lights between 70 and 100 watts apiece. Those have been replaced with 13-watt LED lights that not only consume less power but also emit a brighter and more natural-looking light.

Inside the shops, Elder has replaced 400-watt floods with high-output T5 lamps that, like the exterior LEDs, give off a more pleasing light and use less energy. Unlike the old lights, the T5s switch on and off with no warm-up and cool-down time. And by using two separate switches, Elder can use all or half of the available lights at any time.

Because of the brightness of the T5s, Elder was able to reduce the number of fixtures in his tire shop (a separate building) from nine to five, and the overall number of bulbs from 36 to 20.

"They [the employees] like it better because they actually have more light," he said.

Between the exterior and interior changes, Elder expects to cut the lighting portion of his utility bills by roughly two thirds. The real savings, however, will come from the timers on the engine block heaters. CLEER, the local group that runs the Garfield Clean Energy programs, is quick to emphasize those huge savings.

"This is the kind of thing that every truck company should consider—bus agencies, waste management and excavation companies, you name it," said Erica Sparhawk an Energy Coach with CLEER. "The paybacks are good and the rebates are an additional incentive."

Elder spent a total of \$13,000 on all of his energy-efficiency measures, and thus far has received rebates

from Garfield Clean Energy and Holy Cross Energy, his electrical utility, amounting to over \$3,000. If the engine block timers save as much energy as they should, Elder will recoup his expenses for that project in less than a year.

The lighting upgrades will take between eight and nine years to pay off, but Elder is already exploring ways to invest the savings in more energy-efficiency upgrades, including solar panels.

"There aren't a lot of small businesses that can just pull out an extra \$12,000 or \$15,000 to do something like this," he said. "If there weren't the rebates out there, I probably wouldn't have thought seriously about doing this."

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