



Custom Efficiency

For Complex Projects

MotivePower doesn't have to raise the roof to save energy—it's already 55 feet high

It seems like the perfect job for the person with an active inner child. “We build new locomotives and refurbish old ones for the transit and freight industries,” said Ed Allen, fabrication shop and maintenance manager for MotivePower in Boise, Idaho. “Basically, we get to play with trains all day.”

MotivePower has two facilities in Boise—a locomotive manufacturing and refurbishing complex and an annex for rebuilding locomotive engines and truck assemblies. Together, they occupy more than 300,000 square feet in 13 buildings. Upgrading the lighting in just one building would have been an ambitious project. MotivePower opted to convert the lighting in the 10 structures of the locomotive complex, encompassing 268,838 square feet.

A special kind of challenge

“I’ve worked on all the Boise School District lighting upgrades,” said Steve Creswell, the plant electrician, “but this is the biggest upgrade I’ve ever done.” Steve looked up at the new, high-efficiency lights high above him. “It’s the tallest, too.” Some of the ceilings over the side bays in MotivePower’s locomotive assembly shop rise 45 feet above the floor. “And that’s the lower side of the roof,” noted Purchasing Agent Tamalla Hart. “It goes up to 55 feet in the center.”

The ambitious project involved changing out or installing more than 6,000 lights. Existing T12, metal-halide, and high-pressure sodium fixtures were replaced with more efficient T8 and T5HO technology, and these new fixtures are not just ordinary lights. Because some of the ceilings are five stories tall, MotivePower had to install special, high-bay bulbs that extend light far distances. “In the locomotive shop alone, we replaced 96 1,000-watt mercury vapor lights,” Steve pointed out. “And that was just above the tracks.” “We upgraded everything,” Tamalla added proudly, “even the exit signs.”



More than one way

The Idaho Power Custom Efficiency incentive program is a valuable source of funding for commercial and industrial energy-saving projects. But it’s not, as MotivePower demonstrated, the only one. Like MotivePower, many companies leverage state and federal government tax-incentive and grant programs that even can help give large endeavors enviable returns on investment (ROI). *Continued on back.*



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– Steve Creswell
Plant Electrician
MotivePower

The savings

Idaho Power estimates the lighting upgrade will save MotivePower 1,182,165 kilowatt-hours (kWh) annually. That’s enough electricity to supply 85 average-sized homes in Idaho Power’s service area for one year. For MotivePower, that’s a financial savings of more than \$65,000 per year.

The total cost of the retrofit was \$332,542, of which Idaho Power contributed \$141,859 as part of its Custom Efficiency program. MotivePower also took advantage of energy-efficiency tax incentives from the federal government to help finance the project. “By the time you pencil it all out,” Steve noted, “we paid about \$30,000 out-of-pocket. When you throw in what we’re saving on our power bill, that’s a payback time of about 33 months. Not bad, in my book.”

Cost	Idaho Power Rebate	Savings (kWh/year)	Annual Savings	Customer out-of-pocket*	Payback in Months
\$332,542	\$141,859	1,182,165	\$67,383	\$30,000	33

* Achieved by leveraging the Idaho Power Custom Efficiency rebate and federal tax incentives

Uncommon savings are quite common

Saving energy has always been a smart business decision. Now, Idaho Power makes it attainable. Our complete suite of energy efficiency programs provides attractive incentives to commercial and industrial customers who want to reduce their utility costs.

- The **Custom Efficiency** program offers substantial rebates to large commercial and industrial customers who invest energy-saving improvements in their facilities.
- **Easy Upgrades** provides incentives of up to \$100,000 when companies retrofit their infrastructures with energy-saving upgrades.
- The **Building Efficiency** program pays up to \$100,000 *per project* to mitigate the additional capital costs when companies upgrade their lighting, cooling, controls, and building shells to more efficient components.
- **FlexPeak Management** offers commercial and industrial customers incentives in the form of recurring payments for reducing their power consumption during times of overall peak demand.

The above success story was produced in cooperation with, and approval from, MotivePower, a Wabtec company.



More than one way (continued)

For example, Murakami Produce of Ontario, Oregon, used cash incentives and tax credits from Idaho Power, the U.S. Department of Agriculture’s (USDA) Rural Energy for America Program (REAP), and the Oregon Department of Energy (DOE) to finance lighting and ventilation system improvements that totaled almost \$1 million.

“Investing in energy efficiency is a sound business practice,” said Todd Schultz, Idaho Power’s commercial energy-efficiency program leader.

How much can your company save?

For more information about Idaho Power’s energy efficiency incentive programs, go to www.idahopower.com/business or call us at 208-388-5624. We’ll show how you can join smart companies like MotivePower, saving energy and money.

