

Strategies

Cascade Energy Engineering recommended installing a new compressor unit to replace two older and small compressors, a new condensing unit and variable speed controls for motors.

Project Benefits

- Lower operating costs
- Reduced energy costs
- More space in the equipment room
- Reduced environmental impacts
- Estimated annual savings of 176,621 kilowatt hours

Equipment Installed

- Energy efficient motors—7.5, 50 and 250 horsepower (hp)
- Techni-Systems: Control integration
- Eoff-Saftronics variable frequency drives—50 and 250 hp

Financial Analysis

- \$16,067 incentives from Energy Trust of Oregon
- \$7,535 estimated annual energy cost savings

Cash in on incentives today

Energy Trust's energy efficiency and renewable energy programs provide cash incentives to help your business reduce energy costs, improve operations, or generate electricity on-site at your facility. Incentives offset the cost of high efficiency upgrades such as these:

- | | |
|--------------------------------------------|-------------------------------|
| • Lighting | • Motors |
| • Drives | • Compressed air |
| • Insulation | • Solar electric systems |
| • Heating, cooling and ventilation systems | • Solar water heating systems |
| • Industrial process technical studies | • Biomass systems |
| • Pumps | • Small wind turbines |

Start saving today

It's easy to take advantage of Energy Trust incentives. To get started, call us at 1-866-368-7878 for assistance. We'll help you determine which energy efficiency measures make sense for your operation and direct you to the appropriate Energy Trust program and to trade ally contractors who work with Energy Trust incentives programs regularly.

To find out more information, visit www.energytrust.org/PE.

Energy Trust of Oregon, Inc., is an independent nonprofit organization dedicated to energy efficiency and renewable energy development. Our mission is to change how Oregonians produce and use energy by investing in efficient technologies and renewable resources that save dollars and protect the environment. We serve Oregon customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas.

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Food Processing Case Study



Business Energy Solutions—Production Efficiency

Food processors cook up big savings

As one of the largest and most energy intensive industries in the state, food processors have great opportunities to reduce energy costs, streamline operations and gain a competitive edge by becoming more energy efficient. Energy Trust can help with technical assistance and cash incentives that sweeten the bottom line. And by lowering energy consumption, food processors are contributing to a sustainable future for Oregon.

Organically Grown Company cultivates savings through high efficiency refrigeration, lighting

As the Northwest's largest distributor of organic produce, Organically Grown Company knows a lot about sustainable and healthy practices. Lately, this growing company has been harvesting the benefits of energy efficiency upgrades in their newly expanded distribution center.

Installation of high efficiency lighting and occupancy sensors is saving more than \$2,764 each year in electricity costs. Refrigeration system upgrades, wall insulation and dock seals save another \$3,635. Plus, these upgrades create a better workspace for employees and improve the company's control of their refrigeration—a must-have for a fresh produce company.

Project at-a-glance

Goals

- Reduce energy use from lighting and refrigeration
- Increase control over refrigeration system

Strategies

Cascade Energy Engineering recommended reducing head pressure on the refrigeration systems and installing evaporator fan cycling controls to maintain temperatures with less energy. Lighting upgrades create higher light levels with fewer watts and provide refrigeration savings by reducing heat generation.



A lighting upgrade helps Organically Grown Company employees see their quality produce in a whole new light.

“ENERGY TRUST INCENTIVES MADE IT EASIER FOR ME TO SELL THE IDEA OF ENERGY UPGRADES TO MY BOARD OF DIRECTORS. AS A COMPANY COMMITTED TO SUSTAINABILITY, WE BELIEVE IMPROVING OUR OWN OPERATIONS THROUGH ENERGY EFFICIENCY GIVES US A COMPETITIVE ADVANTAGE.”

Tyson Haworth, senior operations manager,
Organically Grown Company

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Project Benefits

- Reduced energy costs
- Better lighting and refrigeration control
- More comfortable work environment
- More consistent temperature from delivery trucks to refrigerated storage
- Estimated annual savings of 108,167 kilowatt hours

Equipment Installed

- T-5 high output 3-lamp fixtures—30 installed
- Occupancy light sensors—6 installed
- Dock seals
- Head seals
- Head pressure control valves
- Wall insulation
- Evaporator fan cycling controls

Financial Analysis

- \$5,744 incentives from Energy Trust of Oregon
- \$6,399 estimated annual energy cost savings
- Payback after incentives: Lighting, 3.5 years; refrigeration, 1.1 years
- Applied for Oregon Business Energy Tax Credits

Pacific Natural Foods lights way to greater energy efficiency

With 11 buildings in their Tualatin operation, Pacific Natural Foods knew where to look for the quickest return on its energy efficiency investment. The company just looked up at the hundreds of lighting fixtures throughout its facility. Operating 24/7 is the rule at Pacific, so it didn't take long for Energy Trust trade ally Energy Payback Solutions to demonstrate the value of a comprehensive lighting upgrade.



Pacific Natural Foods' Rory Schmick, sustainability manager, and Jon Gehrs, president/packaged foods

With nine buildings now upgraded with high efficiency light fixtures and occupancy sensors, Pacific Natural Foods has cut electricity demand for lighting in half for estimated annual savings of \$45,699. Even better, this project sheds light on other energy savings opportunities, demonstrates the value of the “triple bottom line” (economy, environment, employees) and reinforces the company's core values.

“This lighting upgrade has really set the tone for the company's commitment to efficiency,” said Jon Gehrs, Pacific Natural Foods president/packaged foods. “We also believe the installation of the energy efficient lighting is a great example of a practice that employees can take back to their homes. Improving our energy efficiency speaks to who we are as a company.”

Project at-a-glance

Goals

- Reduce energy use from lighting
- Improve lighting levels and controls in multi-building facility

Strategies

Energy Payback Solutions designed a multi-phase lighting upgrade that creates higher light levels with fewer watts and improves light quality through the facility.

Project Benefits

- Reduced energy costs
- Better lighting control

Equipment Installed

- T-5 high output 5-lamp fixtures—84 installed
- T-5 high output 2-lamp fixtures—196 installed
- T-5 high output 4-lamp fixtures—243 installed
- T-8 ballasts and lamps—156 installed
- Occupancy sensors—532 installed

Financial Analysis

- \$56,336 incentives from Energy Trust of Oregon
- \$63,862 Oregon Business Energy Tax Credits
- \$45,699 estimated annual energy cost savings
- \$182,467 total project cost
- Payback after incentives and tax credits: 1.4 years

Umpqua Dairy cools energy use, expands capacity with efficiency upgrades

The largest independent dairy in Southern Oregon, Umpqua Dairy's ammonia refrigeration system no longer met the expanding needs of the 76-year-old company. So the dairy went for the triple-dip solution to save energy and boost production.

Cascade Energy Engineering analyzed Umpqua Dairy's refrigeration system and proposed replacing two smaller compressors with a larger, more efficient compressor, adding a condensing unit and variable frequency drives on premium motors, and installing a PC-desktop control system. The \$65,210 project, which will save more than \$7,500 in annual electricity costs, qualified for \$16,067 in Energy Trust incentives.

“Over the years, we've completed a number of upgrades to our operation,” said Doug Feldkamp, Umpqua Dairy president. “Energy Trust's Production Efficiency program provides another chance to save energy. With Energy Trust incentives we can see a shorter payback, so we have a greater opportunity to make investments.”

Project at-a-glance

Goals

- Reduce energy use from the main ammonia refrigeration system
- Increase production capacity



Ted Grensky, facilities manager, Umpqua Dairy