

Business Energy Solutions—Production Efficiency: Roseburg Forest Products



Efficiency investments save \$2 million each year

Since 2004, Roseburg Forest Products has invested in 51 projects that have slashed annual electricity consumption by 44 million kilowatt hours and improved productivity at the company's four southern Oregon plants. Those savings are the most recent results from an Oregon-based company that has invested in energy efficiency for many years.

Founded in 1936, the family-owned company based in Dillard, Oregon, earned the 2008 Energy Trust Energy Leadership Award for its commitment to energy efficiency and sustainability in its Oregon facilities. By investing in high-efficiency equipment such as lighting, a new refining system and variable frequency drives on motors, Roseburg Forest Products cut annual energy costs by approximately \$2 million since 2004 and qualified for \$4.5 million in Energy Trust incentives. Many more energy-saving investments are planned for the future.

“We put a lot of capital into our plants. We have a unique focus on technology, and energy is a major component of any investment decision you make today. Energy Trust provided us with a new way of thinking. We've ended up doing projects for the benefit of power consumption and operating efficiencies in our plants. We're just getting started. We have a long way to go.”

*Allyn Ford, president & CEO
Roseburg Forest Products*

Goals

- Reduce energy consumption
- Lower energy costs
- Improve productivity
- Improve operating efficiencies
- Reduce dependence on grid power

Strategy

Collaborate with Energy Trust to identify and prioritize energy-saving opportunities at the company's four southern Oregon locations.

Project Benefits

- \$2 million in estimated annual electricity cost savings
- Estimated annual electricity savings of 44 million kWh, enough energy to power 3,900 average Oregon homes
- Lower maintenance costs
- Operating efficiency improvements
- Reduced environmental impacts

Project Snapshots

Energy-saving improvements at Roseburg Forest Products' facilities in Coquille, Dillard, Riddle and North Bend include high-efficiency refiners, premium motors, variable frequency drives, air compression system upgrades, high-efficiency lighting and energy-efficient dust collection.

Baseline energy use analysis and energy savings projections provided by Energy Trust helped the company identify and prioritize capital investments.

Refiners “mega” project—The company saved more than 22 million kWh of electricity by replacing the refiners at the Dillard particleboard facility with a more efficient screen system. Refiners condition or modify sawdust that goes into particleboard. According to Jim Cook, electrical engineering manager, “We get an even better product as a result of the change. It wasn't just a reduction in horsepower, it was a completely different way of processing material.”

Photo (left to right): Allyn Ford, president; Bill Randles, vice president engineering; Jim Cook, electrical engineering manager

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Perspectives from Jim Cook

Electrical engineering manager, Roseburg Forest Products

Variable frequency drives on motors and fans

According to Jim Cook, one of the most important places Roseburg Forest Products has been installing VFDs is on their boilers for the forced draft and induced draft fans. "The old system of running a motor full speed and then using a damper to control the flow of air was inefficient. The motor was constantly trying to deliver the maximum amount of air and then we were trying to pinch off the flow of air with a damper. The damper systems were very slow to respond and they leaked, so it was difficult to control the boilers. With the variable frequency drives, not only do we save a lot of electrical energy, we also get much better control of the boilers so now our boilers run more efficiently, they smoke less and the opacity of the exhaust gases is lower."

Collaboration with Energy Trust

When Roseburg Forest Products feels they have an opportunity to save electrical energy, they call their Energy Trust Program Delivery Contractor, RHT Energy Solutions. RHT performs a baseline analysis of their current system using various data logging equipment. "Our time is pretty valuable, so it's a huge benefit to us to have someone come in and do a profile of what the energy consumption is right now, and then go back and help us do the calculations to figure out what it's going to take to generate savings and what savings we're going to get out of it. It's huge."

Start saving today

Energy Trust helps Oregon industries improve the energy efficiency and productivity of their manufacturing processes. Energy Trust's Production Efficiency program offers financial incentives, technical assistance and other services to help you maximize energy efficiency.

To find out more, call 1-866-368-7878 or visit www.energytrust.org.

Financial Analysis

Roseburg Forest Products received financial incentives, which helped make the projects affordable and accelerated return on investment:

\$9.2 million	Project costs
\$4.5 million	Energy Trust incentives
\$4.7 million	Net project costs (before tax credits)
\$2 million	Estimated annual energy cost savings
2.35 years	Estimated payback on investment (before tax credits)

Oregon Business Energy Tax Credits reduced the company's investment on many projects.

Project Team

Roseburg Forest Products
Energy Trust of Oregon, Inc.

Utility

Pacific Power

Sawmill baghouses (dust collectors)



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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