



OREGON SAWMILL CUTS ENERGY WASTE IN PRODUCT EXPANSION

AN ONGOING COMMITMENT TO ENERGY EFFICIENCY TRIMS NATURAL GAS CONSUMPTION

Southport Forest Products, a small log sawmill and whole log chipping facility located in North Bend, Ore., has relied on energy efficiency solutions as part of its business management practice since it was founded in 1998. While the basic operation of the modern Oregon sawmill hasn't changed much in the past 100 years, the energy efficient technologies available to enhance manufacturing and improve operating efficiency have come a long way. Powered both by natural gas and electricity, the company has implemented several energy improvement projects over the past few years, reducing its annual energy use by nearly 2,000,000 kilowatt hours and a projected 226,421 therms of natural gas.

At its seven-year-old sawmill, Southport Forest Products operates a highly-efficient, high tech manufacturing operation where small logs are cut into dimension lumber products and sold to retail and wholesale lumberyards and big box stores. A recent initiative to expand into dry lumber products led to an investment in energy efficient equipment and systems that is reducing the company's energy use and saving money.

Southport's goal is to produce more products while reducing manufacturing costs through improved efficiencies at the mill. According to company founder Jason Smith, the dry kiln project allows the mill operation to diversify by capitalizing on the multi-million dollar domestic and foreign sales opportunities for kiln-dried lumber. Plus, the cost of shipping dried lumber versus green lumber products is significantly lower, adding to the company's projected savings.

PROJECT-AT-A-GLANCE

Project benefits

- Lower operating and energy costs
- Improved controls
- Facilitated diversified product line

Projects

- New efficient gas-fired boiler
- Dry kiln improvements—heat exchange vents
- Dry kiln improvements—fan VFD control

Financial analysis

- \$568,419 total project cost
- \$240,600 in cash incentives from Energy Trust
- \$131,321 in annual gas and electric utility costs

Estimated annual savings

- 226,421 annual therms
- 181,073 annual kilowatt hours

The first industrial customer to use the natural gas line located on the north spit of Coos Bay, Southport worked with RHT Energy Solutions, a Program Delivery Contractor for Energy Trust of Oregon, and NW Natural to develop a plan for implementing the dry kiln operation. Energy Trust arranged for an Allied Technical Assistance Contractor to conduct a free study of the proposed system to evaluate the manufacturer's energy savings claims. The study validated the product specs and identified expected savings from the kiln's energy efficiency measures.

A highly efficient natural gas boiler was installed to support the new dry kiln operation, which included an economizer to capture energy lost out the stack. The dry kiln itself was equipped with heat exchange vents and variable frequency drive fan controls to track moisture content and control the drying process. The result is a more efficient kiln and a reduction in natural gas and electrical power consumption, plus a substantial market expansion for the business and new jobs for the community.

"We're already seeing more savings than our models predicted," said Smith. "We think we'll be able to dry more lumber in a monthly period than expected and we'll do it without consuming more gas. If the mission of Energy Trust is to help promote energy efficiency and reduce energy consumption, then our projects show that it is definitely working."



Take control of your energy costs. Visit www.energytrust.org or call **1.866.368.7878**.



The dry kiln consumes an enormous amount of energy, so we knew we needed help identifying energy efficiency solutions to maintain the economic feasibility of our investment.



Jason Smith, founder
Southport Forest Products