

COMPRESSED AIR EFFICIENCY AT A GLANCE

PROGRAM OVERVIEW

Tacoma Power has cash incentives and technical expertise to lower your compressed air system's operating costs and improve its reliability.

INCENTIVES: 20 cents per first-year kilowatt hour saved, up to 70 percent of the approved project cost.

ELIGIBILITY: Incentives available for commercial/industrial operations in the Tacoma Power service area.

PROJECT OVERVIEW

RAINIER VENEER GOALS

- Reduce energy consumption
- Reduce energy costs
- Maintain air quality

EQUIPMENT INSTALLED

- 150 horsepower variable speed rotary screw compressor
- 800 CFM refrigerated cycling dryer
- 1,060-gallon air receiver storage tank

FINANCIAL ANALYSIS

Annual kWh savings:	444,849
Total project cost:	\$109,218
Financial incentive from Tacoma Power:	\$76,264
Net customer cost:	\$32,954
Projected annual cost savings:	\$16,278

PAYBACK PERIOD

- Two years



Lenny Becraft, Maintenance Supervisor
Rainier Veneer

Case study

Compressed Air Efficiency

"We would not have made the change had it not been for the Tacoma Power incentive."

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Compressor upgrade means system improvement for Rainier Veneer

BIG INCENTIVES AND SOLID ADVICE LEAD LOCAL BUSINESS TO MAKE MAJOR EQUIPMENT UPGRADE

On any given day at Rainier Veneer, steam pours off the freshly cut logs, still warm to the touch. Up to 3,500 logs are peeled and cut each day at the Spanaway facility, then rolled out in thin sheets of veneer, which are then cut and stacked. Ultimately, they're sold to plywood manufacturers and used in building construction.

Much of the work done at Rainier Veneer, which runs 20 hours a day, is powered by two air compressors. One of those compressors is a new purchase, made possible with the help of incentives and advice from Tacoma Power.

The compressors are tucked away in a small room, far from the hulking machinery that is the centerpiece of the business, but nonetheless a critical part of Rainier Veneer's operation.

With the help of Tacoma Power, Rainier Veneer's compressor system underwent a demand-side assessment that examined the piping, air leaks and distribution system. Through that assessment, general manager Jim Herold learned that a new, more efficient compressor with a variable frequency drive could improve the system's performance. But it wasn't a change he thought the business could afford to make.

After a little time and some counsel from Tacoma Power, Herold was ready to act. Learning of the significant incentive of \$76,264 certainly helped, too.

Big changes ahead

"We would not have made the change had it not been for the Tacoma Power incentive," Herold said. "That gave us a good reason to do it. It was a good chance to upgrade and replace equipment. We never would have upgraded to this quality of equipment otherwise."

And they likely would not have known of it or taken advantage of it without the help of Tacoma Power lead energy engineer Gary Johnson.

"Without Gary's recommendation, we never would have proceeded. Gary was professional, knowledgeable and honest," Herold said.

Rainier Veneer's operations require two compressors – one for primary operations and one to serve as a backup. The new compressor, installed in spring 2010 without a break in operations, is quieter than the one it replaced, and it delivers a more constant pressure. It provides a high level of electric savings, using less power to run at the same capacity as the old

compressor – a good thing, considering compressors can often account for up to 20 percent of a facility's total electric use.

"And, the new equipment is easy to troubleshoot – it's pretty smart," said Lenny Becraft, maintenance supervisor for Rainier Veneer.

Along with the new, efficient compressor, Rainier Veneer also bought a new cycling dryer and a new air storage receiver tank, all from Rogers Machinery. The new cycling dryer can replace the existing regenerative dryer's operation for most of the year, allowing additional energy savings. The new receiver tank essentially acts as a holding tank for air, so the compressor doesn't have to work as hard during certain periods.



Rainier Veneer facility in Spanaway



GARY JOHNSON – DEDICATED TO CONSERVATION

Gary Johnson, a Tacoma Power mechanical engineer, helped Rainier Veneer obtain a large cash incentive for improving its compressed air system's efficiency. He's worked as an energy engineer for Tacoma Power for more than 22 years, helping Tacoma Power customers reduce their energy costs and providing education on efficient energy use.

"I get a whole lot of satisfaction from this job, because not only am I helping customers reduce their energy expenses, I also get a chance to develop long-term customer

relationships that help promote both energy efficiency and good customer service," Johnson said.

Johnson has been involved in all areas of energy efficiency, from research and program design to field work for residential, commercial and industrial facilities.

Power Programs

As you plan energy-efficiency upgrades to your business, start by taking advantage of Tacoma Power's rebates and incentives.

- WALK-THROUGH ENERGY AUDIT
- ENERGY BILL PROFILE
- ZERO-INTEREST LOANS
- BRIGHT REBATES

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