

NEW CONSTRUCTION AT A GLANCE

PROGRAM OVERVIEW

Tacoma Power can help optimize the design and performance of your new building by funding up to 100 percent of the incremental cost for energy-efficient equipment and design beyond the state energy code.

INCENTIVES: 20 cents per kilowatt-hour for the projected annual energy savings benefit beyond the state energy code.

ELIGIBILITY: Projected energy use of the proposed project in Tacoma Power service area must beat the state energy code by 10 percent or more.

PROJECT OVERVIEW

WHIRLPOOL GOALS

- Reduce environmental impact of new facility
- Reduce operating costs
- Minimize energy use
- Achieve LEED certification

EQUIPMENT INSTALLED

- Energy-efficient fluorescent lighting fixtures
- Occupancy and daylight sensors

FINANCIAL ANALYSIS

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| Annual kWh savings: | 3,771,032 |
| Lighting and controls equipment cost: | \$565,860 |
| Incremental cost of improved lighting equipment: | \$361,610 |
| Financial incentive from Tacoma Power: | \$361,610 |
| Net cost to company for premium equipment: | \$0 |
| Projected annual cost savings: | \$152,879 |

PAYBACK PERIOD

- Instant



Rick Elliott

Penske Logistics at Whirlpool warehouse

Case study

New Construction

"That we're saving energy and doing something for the environment – it means a lot to the people who work here."

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Simple technology, big savings

GOOD DESIGN, EFFICIENT EQUIPMENT AND SMART CONTROLS EQUAL BIG SAVINGS FOR LOCAL WHIRLPOOL FACILITY

With efficient and readily available controls, the new Whirlpool distribution warehouse in Frederickson is saving significant amounts of energy and money, while operating with a substantially lighter environmental impact.

In designing its new 890,000-square-foot distribution warehouse in southeast Pierce County, Whirlpool developed a specification for increased energy efficiency and sustainability. Incentives provided through Tacoma Power's New Construction program were a powerful complement to Whirlpool's efficiency plan. Tacoma Power's incentives covered the entire incremental cost – the cost difference between the efficient lighting system compared with code lighting.

Through that collaboration, Whirlpool installed efficient lighting equipment and controls that are projected to save the facility more than \$152,000 a year in electricity costs, while contributing energy points toward the project's LEED Gold rating (see more LEED information later in this story). The lighting equipment includes energy-efficient fixtures and lamps, and occupancy and daylight sensor controls.

"The efficient lighting fixtures containing energy-saving T5 fluorescent lamps

are the most cost-effective technology available," said Mark Aalfs with Tacoma Power. The combination of these efficient fixtures, generous daylighting from skylights, and daylighting and occupancy sensors results in super energy savings. On sunny and bright days, all but the emergency lights are turned off. On dark days and at night, the lights turn on only when the occupancy sensors see movement.

Building pride

"For employees, there's a sense of security and safety with good lighting in the building," said Rick Elliott, regional distribution manager with Penske Logistics, the group that manages the Whirlpool facility. "And, we're looking at the environment with long-term awareness. That gives the employees a sense of pride."

Boosting that pride is the fact that the warehouse earned a LEED Gold rating in 2010, two steps better than the companywide goal of LEED certification. Developed by the U.S. Green Building Council, LEED (Leadership in Energy and Environmental Design) certification is a framework for identifying and implementing practical and measurable green building design, construction, and operations and maintenance solutions.

"That we're saving energy and doing something for the environment – it means a lot to the people who work here," Elliott said.

The warehouse, completed in July 2009, has 52 employees who manage the collection and shipping of major appliances, such as dishwashers, ranges and refrigerators, shipped from all over the world to the Frederickson distribution center. From there, the items are delivered to retailers, homes and building sites across the Northwest.



Whirlpool warehouse in Frederickson



MARK AALFS – DEDICATED TO CONSERVATION

Mark Aalfs, a Tacoma Power employee and longtime conservationist, helped Whirlpool receive a significant financial incentive for the project's considerable energy savings. Conservation has been a lifelong pursuit for Aalfs.

"I've been active in conservation pursuits since high school, when I designed a model solar house for a science fair project.

It's important to me to help people and businesses conserve because of the clear economic, job and societal benefits realized through energy efficiency. I've seen the positive impact when people come together to redirect wasted energy dollars toward productive community investment. I've seen the enthusiasm generated when, through conservation and solar projects, people take greater control over local community energy use."

Power Programs

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

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

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