



Rand Lymangrover, Totem Ocean Trailer Express, Inc.
Anna Soderstrom, Port of Tacoma

Case study

HVAC Equipment Rebate

"Working with Tacoma Power to get the rebate was a quick and easy process."

HVAC EQUIPMENT REBATE AT A GLANCE

PROGRAM OVERVIEW

Tacoma Power can help businesses in the short term with a rebate for new electric heating and cooling equipment. In turn, that new equipment will work for businesses in the long term by reducing energy consumption and electric bills.

ELIGIBILITY: Rebates available to commercial/industrial operations in the Tacoma Power service area.

PROJECT OVERVIEW

TOTE GOALS

- Reduce electrical energy consumption
- Lower energy costs
- Decrease equipment downtime
- Decrease maintenance expenses
- Increase employee comfort through better temperature control

EQUIPMENT INSTALLED

- Two 12.5 ton rooftop air-cooled packaged heat pumps
 - Cooling Mode
 - Energy Efficiency Ratio (EER): 11.0
 - Integrated Part Load Value (IPLV): 11.9
 - Heating Mode
 - Coefficient of Performance (COP): 3.2

FINANCIAL ANALYSIS

Annual kWh savings:	6,000
Incremental cost of equipment:	\$2,200
Total rebate from Tacoma Power:	\$1,500
Net incremental cost cost to TOTE:	\$700
Projected annual cost savings:	\$350

PAYBACK PERIOD

- 6 months

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Efficient heat pumps bring savings and comfort

REPLACING OLD HEAT PUMPS MEANS REBATE CHECK FOR PORT AND ENERGY SAVINGS FOR TOTE

Two new ultra-efficient heat pumps sitting on top of a shipping administration building on Port of Tacoma property take in the best view around but give back by providing energy savings and comfort.

Recently, Totem Ocean Trailer Express, Inc. (TOTE), replaced two aging heat pumps that heated and cooled the two-story, 6,000-square foot administration building on the Blair Waterway. Two new 12.5 ton air-cooled packaged heat pump units replaced units that were about to hit the 30-year-old mark and were well past their useful life. They'd been through multiple and increasingly frequent repairs, including a compressor replacement.

"You're just throwing your money away, keeping the old ones running, and barely running at that," said Dennis Guite, HVAC electrician at the Port.

TOTE leases the shipping property from the Port of Tacoma and is responsible for the utility bills and upkeep of the heat pumps. The company will save energy, money and maintenance costs with new reliable heat pumps that meet strict energy efficiency standards established by the Consortium for Energy Efficiency.

The new system has an economizer that uses outside air to cool the building when it's 64 degrees or below outside, which adds to the building's energy savings.

New equipment rebates

As the property owner, the Port bought the new equipment and received a \$1,500 rebate from Tacoma Power for the purchase. "Working with Tacoma Power to get the rebate was a quick and easy process," said Anna Soderstrom, manager of container terminal businesses at the Port of Tacoma.

The new heat pumps offer zone control to the TOTE building, which allows

different temperatures for different areas of the building at one time.

"You can notice a difference in the distribution of heat in the building," said Rand Lymangrover, terminal facility environmental and security manager. "We have a lot more control now, and there are fewer complaints about temperature issues."

TOTE has two large container ships that twice weekly make the 70-hour trip between Tacoma and Anchorage, carrying everything from heavy equipment and construction materials to cars and food.



TOTE trucks at Port of Tacoma



TEERAPHAN CHAVANACHAT – DEDICATED TO CONSERVATION

Teeraphan Chavanachat, a Tacoma Power employee better known as "TC," helped Totem Ocean Trailer Express, Inc. and the Port of Tacoma save energy and get a rebate for installing two new energy-efficient heat pumps.

TC has worked as an HVAC system design engineer for more than 25 years, creating energy-efficient and reliable systems that exceed energy codes. It's an especially important job, he said, because 50 percent of the energy consumed by a typical commercial building is used by the HVAC system.

"At the end of the day, I feel good knowing that I have helped the community use our planet's finite energy resources more efficiently," TC said. "I believe that my work at Tacoma Power makes a difference."

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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