



GIVE REFRIGERATION ENERGY COSTS THE COLD SHOULDER

THE KAIZEN BLITZ APPROACH CAN RE-TUNE YOUR SYSTEM AND CUT ENERGY USE UP TO 20 PERCENT

ENERGY TRUST'S KAIZEN BLITZ SERVICE CAN HELP WITH SOLUTIONS TO:

- Reduce energy costs through no- and low-cost actions
- Provide cash incentives of up to 50 percent of implementation costs
- Reduce probability of sudden equipment failure
- Protect product quality
- Minimize frequency of overhauls
- Extend the design life expectancy of equipment
- Gain a better understanding of refrigeration loads
- Help contribute to a more sustainable future

Refrigerated warehouses and food processing facilities require substantial amounts of energy to maintain food freshness and safety. As energy prices rise, the cost of refrigeration increasingly cuts into tight profit margins. To help control energy costs, many businesses are taking no- and low-cost steps to fine tune their refrigeration equipment, resulting in substantial energy savings.

These cost-effective operations and maintenance actions offer numerous advantages. They require minimal investment and can have almost immediate payback through energy savings. Most operations and maintenance actions can be quickly and easily installed by in-house personnel. Re-tuning your system does not require the design time, bid preparation and evaluation that are typical of capital projects. And improved operations and maintenance can reduce the risk of equipment failure or expensive deferred maintenance.

Energy Trust of Oregon offers an innovative Kaizen Blitz approach to help refrigerated warehouses and food processing facilities re-tune their refrigeration systems to cut annual

refrigeration energy use by five to 20 percent. Kaizen Blitz combines the expertise of your staff with Energy Trust's technical service providers to identify and implement operations and maintenance opportunities. Our service includes on-going performance monitoring and follow up, as well as cash incentives that pay up to 50 percent of your costs.

Let us help you apply a Kaizen Blitz approach to your system and put the chill on refrigeration energy costs.

Kaizen Blitz is a combination of the Japanese word kaizen for "continuous improvement" and the German word blitz for "bolt of lightning," suggesting lightning-fast improvement that continues. Often used in Lean or Six Sigma manufacturing initiatives, Kaizen Blitz focuses on quick fixes for waste.

Jump start your savings with the Kaizen Blitz event

After enrolling in our Kaizen Blitz service and selecting an in-house Energy Champion, you're ready for savings to begin during the three-to-five day blitz. Energy Trust's technical service provider works with your Energy Champion and other in-house participants including maintenance staff, technicians and contractors. Working as a team, we:

- Brainstorm creative approaches to saving energy and solving problems, based on your staff's intimate knowledge of systems
- Make no- and low-cost changes on the spot for immediate and persistent savings
- Identify potential action items for later completion

Tap the expertise of our technical service providers

Energy Trust pays for 100 percent of the cost of a technical service provider, an engineer with specialized knowledge in refrigeration systems. Services include:

- Baseline analysis of facility energy use
- Engineering consultation during the Kaizen Blitz event
- Prioritized list of action items for later, compiled in a final report
- 12 months of engineering follow-up and support to ensure successful action item implementation
- Training and use of energy management software for 24 months to track performance, including normalizing for key variables such as production and temperature

Earn cash incentives of up to 50 percent of costs

For no- and low-cost operations and maintenance strategies, Energy Trust pays cash incentives of \$0.08 per kilowatt hour saved (or up to 50 percent of project costs) after year one. For additional savings realized during year two, Energy Trust pays \$0.02 per kilowatt hour saved.



To learn more about how we can help your business, contact Energy Trust at **503.459.4061** or **production@energytrust.org**.

PROJECT EXAMPLES

DARIGOLD, INC., PORTLAND

Facility maintenance personnel at Darigold's Portland plant were quick to embrace Energy Trust's Kaizen Blitz approach. The five-day blitz, which was spaced over two weeks, yielded energy savings of 4 percent. Implementation of follow-up action items increased the energy savings to 17 percent. Total first-year savings at Darigold is estimated at 2,836,520 kilowatt hours, saving the plant approximately \$200,000 a year.

"We're 100 percent behind Energy Trust's Kaizen Blitz approach," said Darigold's maintenance chief, Dave Alexander. "The energy management software has been particularly helpful. Like many businesses, we've undergone recent staff changes, and that resulted in a temporary loss of energy savings mid-year. Thanks to the software, our new staff discovered within a month that operations and maintenance adjustments needed to be made so we could recapture our energy savings."

SAFeway, INC., DISTRIBUTION CENTER, CLACKAMAS

Following a five-day Kaizen Blitz at its Clackamas distribution center, Safeway reaped energy savings of 6.7 percent from simple actions such as adjusting freezer and refrigeration set points. Additional actions taken during the first 12 months brought Safeway's total first-year savings to 2,526,670 kWh—a savings of 7.9 percent annually. The Clackamas Kaizen Blitz was so successful that Safeway is repeating the Kaizen Blitz process at all of its distribution centers in the West.