



# OREGON BREWERS TAP ENERGY SAVINGS

EFFICIENCY AND RENEWABLE ENERGY CAN BOOST SUSTAINABILITY, CUT COSTS

## WORTHY BREWING, BEND

When brewmaster Chad Kennedy gives tours of Worthy Brewing Company, he talks about Lights Out Stout, fermentation tanks and the solar water heating system. “This tells visitors something different about our story,” Chad said of the facility that opened to the public in April 2013. “Manufacturing beer uses a lot of energy. So we looked for ways to reduce our energy load and costs.”

Energy Trust incentives allowed Worthy Brewing to invest in a high-performance building design, solar electric and solar water heating systems and energy-efficient equipment. Altogether, Worthy Brewing’s energy-saving and generating projects are expected to save them \$11,000 on their annual energy bills.

Nearly half of all draft beer consumed in Oregon is brewed in Oregon, and according to Oregon Craft Beer, Portland currently has the most breweries of any city in the world. So it’s not surprising that Oregon craft brewers are national leaders in sustainable brewing practices, including energy efficiency, water conservation and sourcing of local ingredients. For new and expanding craft breweries, getting the most from your energy inputs is a vital piece of having a profitable and sustainable business.

Energy Trust of Oregon offers a wide range of technical services and cash incentives to help brewers reduce energy-related production costs through capital equipment upgrades and operations and maintenance, O&M, improvements, strategic energy management practices and renewable energy resources, including solar. These improvements can reduce energy use by as much as 10 percent or more. Energy savings can also produce considerable water savings. Whether you’re upgrading an existing facility or building a new one, Energy Trust can help.

Energy Trust has worked with dozens of breweries across the state to reduce energy consumption and cut waste. We provide our services and incentives through your local Program Delivery Contractor, PDC—highly skilled, industrial energy experts who understand what works in your business and how to make the most of energy-saving opportunities.

A number of breweries around the state have also tapped Energy Trust incentives and technical assistance to install solar electric and solar water heating systems to generate some of their own energy.

Here is a list of projects that can trim energy waste from your brewing processes. But in addition to saving energy, many of these projects can have other benefits, such as saving water, reducing chemical use and lowering maintenance costs. Many may also be eligible for Energy Trust cash incentives that can reduce the upfront cost of your investment—and the time to recover your investment in energy savings.

SYSTEM	O&M PROJECTS	CAPITAL PROJECTS
<b>Boilers</b>	Pipe insulation, steam trap repair, tube cleaning, boiler sequencing, boiler tune-up, temperature setback	High-efficiency boiler, stack heat recovery, direct-fired hot water heater, boiler feedwater pump VFDs
<b>Glycol &amp; Chilled Water</b>	Condenser cleaning, heat exchanger maintenance, seasonal tuning adjustment, tube cleaning, controls tuning, increase supply temperature setpoint	VFDs on pumps, 2-way valves, high-efficiency chiller, free cooling
<b>Compressed Air</b>	Shut-off, controls tuning, reduce pressure set point, leak detection/repair, open blowing reduction, compressor sequencing, auto shut-off valves	Electronic actuators, VFD air compressors, efficient air dryers, no-loss air drains
<b>Refrigeration</b>	Compressor staging, condensing pressure reduction, cooling tower control tuning, defrost scheduling, door seals, evaporator/condenser coil cleaning, evaporator fans control tuning, fan cycling, floor/door heat reduction, insulation/heat tracing, seasonal tuning adjustment, smart or liquid defrost run time, suction pressure increase, thermal expansion valve adjustment	Fan VFDs, condenser oversizing, defrost float drains, compressor VFDs, high speed doors, thermosiphon oil cooling, control system
<b>Lighting</b>	Light shut-off, de-lamp overlit areas	High-efficiency fixtures and lamps, occupancy sensors, astronomic timers, controls, skylights/daylighting
<b>Cooling Towers</b>	Wet bulb approach control, media cleaning, spray pump cycling, nozzle maintenance, basin heater set point reductions	VFDs on fans, tower oversizing
<b>HVAC</b>	Programmable thermostats, condenser coil cleaning, economizer maintenance, demand control ventilation, fan cycling, seasonal tuning adjustment, temperature setback, pressure control	Fan VFDs, controls upgrade, high efficiency units
<b>Pumps</b>	Controls tuning, impeller trim, rebuilding/repair, sequencing/staging, system optimization, shut down scheduling	VFD installations, recirculation elimination
<b>Bottling</b>	Auto shut-off for water and compressed air, task lighting automation, pulse compressed air, sanitation water consumption reduction	Blowers, compressed air elimination
<b>Renewable Energy</b>		Solar water heating, solar electric



Take control of your energy costs. Visit [www.energytrust.org](http://www.energytrust.org), talk with your PDC, or call Energy Trust at **1.866.202.0576**.