

Energy Trust's Office Renovation

Demonstrating energy efficiency in a renovated space

At Energy Trust of Oregon, we're committed to staying on the leading edge of energy efficiency, using resources wisely and inspiring others to implement energy conservation and renewable power solutions.

That's why we used the same strategies when renovating our 120-year-old office in Portland's Lincoln Building, using the latest lighting technology, innovative spatial arrangements and sustainable features that make the most of available energy resources. As a result, the third-floor office earned Leadership in Energy and Environmental Design (LEED®) Gold certification.

"We pursued cutting-edge lighting system technologies and sustainable design treatments to showcase the wide range of choices available for office renovations," says Steve Lacey, director of operations for Energy Trust. "We're pleased that the result is a space that works well for occupants and demonstrates solutions for visitors."

Our energy-efficient office

From advanced lighting products, fixtures and controls to daylight-harvesting solutions, our renovation showcases brand-new lighting design technologies and other measures anyone can implement in an office or residence.

Lighting Design

Designing the space around lighting solutions was a top priority for our team, since lighting consumes 20 percent of the average office building's energy use. Our new energy-efficient lighting systems use 35 percent less energy than the LEED® baseline. Additionally, innovative systems such as louvers and light shelves make the most of the daylight we receive from windows and our inner atrium, allowing natural light to reach interior spaces. Sensors, dimmers and elective-use workstation lights conserve energy when it isn't needed.

LIGHTING TECHNOLOGY

- Long-lasting, high-performance fluorescents and LEDs provide comfortable, efficient illumination
- Occupancy sensors turn lights off when no one is present
- Sensors dim lights when daylight is bright
- Dimming controls for workspace and overhead lights save energy
- Raised ceilings, louvers, light shelves, lowered cubicle walls and light-reflecting finishes optimize daylighting while keeping glare off workspaces
- Programmable SensorSwitch controls in meeting rooms support several setups and presentation formats

Sustainable Features

Our renovation also included energy-efficient measures that keep our space—including computers, copiers, appliances, heating and cooling systems and plumbing—running smoothly, without wasting resources.

SUSTAINABLE SOLUTIONS

- Computer equipment, copiers and appliances are ENERGY STAR®-rated
- Efficient systems save energy used for HVAC, air quality control and water
- Purchasing wind-generated energy offsets two years of Energy Trust electricity use
- Environmentally friendly materials include sustainably sourced flooring, low-VOC wall treatments, reclaimed wood and recycled/recyclable workstation materials

Project partners

The following team of partners helped transform our space into a model of energy-efficient design:

- Evergreen Consulting Group LLC—lighting efficiency services
- Glumac—lighting design and electrical engineering
- Group Mackenzie—architectural and interior design
- Harry L. Stearns, Inc.—lighting manufacturer representative
- Platt Electric Supply—lighting product distributor
- Russell Construction—construction services
- Solus—lighting manufacturer representative
- Unico—building management
- Willamette Electric Inc.—electrical contractor

With their help, we were able to implement innovative technologies and design strategies that meet our lighting needs with only 30 footcandles of general illumination, compared to the traditional 50 or 100.

When renovating or constructing new office or residential space, you can incorporate similar energy-efficiency practices and products into your project—and Energy Trust cash incentives and technical assistance can make it more affordable.

To learn more about our energy-efficient renovation and the technologies we used, please download a map of our new office features or review the full case study.