



Steve Zmolek, chief engineer, facilities operations, Legacy Health

# BUSINESSES TURN WASTED ENERGY INTO REVENUE

## LEGACY HEALTH: INTEGRATING STRATEGIC ENERGY MANAGEMENT ACROSS A PORTFOLIO OF BUILDINGS

After working on energy management with the Northwest Energy Efficiency Alliance, Legacy Health wanted to do even more to save energy and cut costs. With six hospitals operating 24/7 and medical office buildings operating on varying schedules, there was more work to be done to implement a truly comprehensive energy program. Legacy's efforts needed reinvigoration and direction, so the health system embarked on Strategic Energy Management with Energy Trust of Oregon experts. Together with a cohort of other businesses, Legacy personnel saved so much energy that they chose to participate for three years in a row.

"Our facilities were already being operated fairly efficiently, but there's always room for improvement," said Pat Lydon, sustainability program manager, Legacy Health. "Strategic Energy Management provided the structure, methodology and discipline needed to achieve buy-in across our culture."

To begin, Energy Trust experts and Legacy's facility services manager walked through each facility to create a detailed opportunity register of potential energy-saving operations and maintenance improvements. The end product gave onsite personnel a road map for focusing their energy-efficiency efforts.

Legacy set up regular conference calls with facility services staff at each site to discuss progress on making energy-efficiency improvements, review results as demonstrated by monitored energy use, provide support and promote persistence. An Energy Trust expert participated in these calls, providing new perspectives on potential issues that could explain variations in energy use. "During the call, we discussed recent changes and upcoming improvements. If an opportunity presented itself that could improve operational efficiency or benefit from additional Energy Trust technical assistance or incentives, we'd discuss how to make that happen," said Lydon.

Within two years, Legacy trimmed annual energy costs by an estimated \$130,000 from operations and maintenance improvements alone. More importantly, the groundwork was laid for a major accomplishment. With facility services managers, facility services staff and senior leadership now participating regularly, Legacy was able to implement a system-wide energy policy that laid the foundation to set savings goals for the next five years. These long-term savings goals help ensure a commitment to achieving lasting energy savings.

### ESTIMATED SAVINGS

- 58,902 annual therms
- 1.94 million annual kilowatt hours
- \$198,038 in annual energy costs
- \$50,616 in Energy Trust incentives
- 1,083 tons of carbon dioxide offset



**Sustainability is an important part of our mission because it ties directly to health and the environment. It's a nice synergy because the monetary savings from energy efficiency help pay for other sustainability efforts that don't provide an immediate economic return.**



Pat Lydon  
sustainability program  
manager, Legacy Health



Wendy Gibson, sustainable operations and maintenance manager, City of Portland

## ESTIMATED SAVINGS

- 14,631 annual therms
- 1,334,961 annual kilowatt hours
- \$119,964 in annual energy costs
- \$23,854 in Energy Trust incentives
- 593 tons of carbon dioxide offset



**Energy savings is invisible, so I can't overestimate the need to track and report results. Feedback is critical for engaging employees and decision-makers. And reports should be visual.**

Wendy Gibson  
sustainable operations  
and maintenance manager  
City of Portland

## CITY OF PORTLAND: TRACKING ENERGY USE, REPORTING RESULTS AND MAKING IT REAL

With 46 buildings to manage and a constrained budget, City of Portland Facilities Services is spread thin. That's exactly what prompted Wendy Gibson, sustainable operations and maintenance manager, to participate in Strategic Energy Management with Energy Trust. "Over the last few years, we have experienced significant budget cuts," said Gibson. So she made a recommendation to her division manager: cut \$50,000 from the annual utilities budget, and Gibson would generate that much in energy savings through Strategic Energy Management. The risk paid off—Strategic Energy Management yielded estimated savings more than twice her target.

Like all participants, Facilities Services created an opportunity register. It included 160 no- and low-cost energy-saving improvements recommended in 10 buildings, including replacing inoperable outside air dampers in the Portland Building.

"The opportunity register was an excellent tool for building engineers and maintenance technicians. It allowed energy efficiency to be an issue they looked at on a strategic level," said Gibson. She invited all the maintenance technicians to a workshop on performing energy assessments—empowering them to identify additional opportunities, including those in other buildings.

Using templates provided by Energy Trust, Deborah Hyde, the city's resource management coordinator, meticulously tracked energy use, monitored progress and reported the resulting savings to audiences far and wide. Tracking takes time, and could not have been done without someone focusing on it and relaying that information back to the stakeholders. "Without her and the Strategic Energy Management program we could not track our energy usage, and that is how we prove our approach is working," Gibson said.

Both Hyde and Gibson constantly looked for opportunities to highlight what they were accomplishing. "We made sure our boots-on-the-ground maintenance technicians understood the fruits of their labor," said Gibson. "When the savings became equivalent to the annual cost of a technician FTE, we put it in those terms for them. It's important to make the results real for the specific audience."

To decision-makers, Gibson communicated the story slightly differently: "In 2013, Facilities Services experienced a 10 percent budget cut, which was made less painful because of the savings from energy efficiency," she explained. The time that Facilities Services invested in Strategic Energy Management paid for itself two to three times in energy savings.



## OREGON CONVENTION CENTER: COMBINING STRATEGIC ENERGY MANAGEMENT WITH CAPITAL PROJECTS

Oregon Convention Center implemented capital energy-efficiency projects for several years before jumping into Strategic Energy Management with Energy Trust. They had slashed an estimated \$331,447 from annual energy costs by upgrading to energy-efficient foodservice equipment and building controls. Shortly before participating in the initiative, the convention center also made several lighting improvements—replacing its 400-watt metal halide bulbs with 200-watt induction lighting and swapping hundreds of 250-watt quartz downlights for 14.6-watt LEDs.

With such phenomenal success, why participate in Strategic Energy Management? “We knew our approach to energy efficiency was not as comprehensive as it could be,” said Erin Rowland, sustainability coordinator, Oregon Convention Center. “We hadn’t tackled the low-hanging fruit. We were tracking energy use, but weren’t analyzing and learning from the data. Strategic Energy Management enabled us to wrap our capital projects together with no- and low-cost improvements for an effective long-term strategy.”

Strategic Energy Management put energy efficiency at the forefront of employees’ minds and resulted in action. “Before, energy wasn’t a major topic of discussion at meetings or otherwise with our entire staff,” said Rowland. “Strategic Energy Management showed us how to have conversations with staff. We held energy scavenger hunts. We started turning off lights and electronics. As a result, we were able to gain another \$85,000 in annual energy savings on top of the savings from our capital upgrades.”

### ESTIMATED SAVINGS

- 87,304 annual therms
- 429,779 annual kilowatt hours
- \$112,955 in annual energy costs
- \$20,739 in Energy Trust incentives
- 674 tons of carbon dioxide offset



Erin Rowland, sustainability coordinator, Oregon Convention Center



Similar to other participants, the convention center focused heavily on using energy data in a meaningful way, including normalizing it for weather, occupancy and other variables. That enabled employees and decision-makers to build momentum by correlating their actions with results.

Analysis of energy use also focused attention on a situation the convention center knew it had with its boilers. They ran unnecessarily all summer, but turning them off would cause the old seals to contract, crack and need replacement. "Strategic Energy Management showed us what it cost to run the boilers compared to the cost of replacing the seals," said Rowland. "It gave us the impetus to turn them off." Turning off the boilers in summer brought estimated annual energy savings of \$69,480; and with an Energy Trust cash incentive, the cost of replacing the seals was paid back in 24 months.



**Strategic Energy Management, together with our capital energy projects, helped us achieve LEED® Platinum for Existing Buildings in 2014. Oregon Convention Center is one of only two convention centers in the nation to achieve that level.**



Erin Rowland, sustainability coordinator  
Oregon Convention Center



Are you ready to get more from your energy?

Learn more about how these customers tapped the benefits of Strategic Energy Management.

Watch video success stories at [www.energytrust.org/commercialSEM](http://www.energytrust.org/commercialSEM).