



Overlake Medical Center — King County

Overlake Medical Center Existing Building Commissioning

The challenge

Like many medical facilities, Overlake Medical Center has various buildings built at different times with different energy demands. Parts of the facility need to be lit and air-conditioned 24/7/365, while others are only in use during regular business hours. As the campus expanded over the years, buildings were added and systems got more entwined and complicated. The challenge was finding O&M staff time to chase down issues that would save energy.

The result

When Director of Facilities Jeff Fleming was presented with a detailed list of suggested updates and a specific associated payback for each, he saw a clear way to proceed and knew he was in good hands. Not only does PSE's Existing Building Commissioning (EBCx) program pre-screen for the best candidates, it pays up to 75 percent of the commissioning provider's fees, regardless of results. And if projected energy savings continue a year beyond project completion, PSE pays up to 100 percent of commissioning costs.

Dialing back pump and fan speeds, adding occupancy sensors, fine tuning equipment schedules and set points, adjusting HVAC controls and fixing leaks made for significant energy savings with no noticeable impact on patient and staff comfort and safety.

Cumulative project savings: \$150,000 per year.

Project details

During the initial walk through, Director of Facilities Jeff Fleming quickly saw that the complicated systems built over the years provided many opportunities for efficiency upgrades. Larger spaces were being cooled year round regardless of outside temperatures and older systems were leaking causing more demand for both heating and cooling.

“I really appreciated the availability of the team at PSE to discuss ideas and make sure we were going in a sustainable direction,” says Fleming. “Because the upfront effort to pick an obtainable goal is considerable, having the right team is crucial.”

Together, the commissioning partner, the maintenance crew at Overlake, and the support team at PSE put together a plan that fixed hidden maintenance items and focused on controls and sequencing that managed the system as a whole, paying special attention to how the heating or cooling of one area affected the rest of the building. Adjusting HVAC settings and changing control sequences in all of the buildings would offer significant payback.



“With the support of PSE, we achieved exactly what we set out to do.”

Jeff Fleming, Director of Facilities,
Overlake Medical Center

Annual savings

Overlake Medical Center is saving energy and money through PSE’s EBCx program and resulting grants.

- **10% electricity reduction**
- **\$150,000 in energy costs**
- **2,700,000 kwh saved**
- **11,400 therms saved**
- **Investment payback in 1.4 years**

Project partner

Jeff Nichols of Engineering Economics, Inc. provided commissioning services for Overlake Medical Center – Bellevue through PSE’s EBCx Program.

These A-to-Z services included in-depth investigation of possible energy efficiency improvements emphasizing those with payback of less than two years; verification; development of a quick-reference manual to help engineering staff operate systems in the most energy-efficient manner; and staff training coupled with energy performance monitoring to keep savings on track.

For more info, visit pse.com/EBCx.