



## The challenge

Hospitals are known for their high energy consumption, so when Swedish Health Services and development partner Hammes Company had a new Issaquah medical complex on the drawing board, they suspected that they had a singular opportunity to design an energy-efficient facility that could save money for decades to come. The challenge was integrating energy efficiency and its daunting first costs into a costly and complicated new medical complex. Extra focus was required by the team to produce deep savings that blended into the facility design.

## The result

When Swedish Health Services and Hammes Company were planning the new 550,000-sq. ft. medical complex in Issaguah and chose to focus on energy efficiency, they called on PSE to see what help was available. Luckily, for new construction, PSE pays up to 100 percent of the cost premium for cost-effective energy efficiency measures and for commissioning. Not only did PSE Custom Grants make ambitious energy-saving measures pencil out, it enabled them to exceed energy code and industry standards to build what may be the most energy-efficient medical campus in the Northwest. The hospital was estimated to save an astounding 53 percent of the energy that a standard design would use.

Cumulative project savings: \$616,000 per year



"You don't get many opportunities to design hospitals from scratch. Energy efficiency was built into Swedish Issaguah at the start."

Susan Gillespie
Administrative Director,
Ambulatory Care
Swedish Medical Center/Issaquah

## Project details

"The PSE grants were a huge bonus for us. They allowed us to incorporate energy efficiency measures that we otherwise would not have been able to include," says Susan Gillespie, Swedish/Issaquah's Administrative Director of Ambulatory Care. One such measure was an advanced heat recovery system that would capture abundant waste heat from the hospital's chilled water system and use it for building and water heating needs. The installation of variable-air-volume air-handling units coupled with better duct pressure controls yielded tighter ventilation control and greater energy savings. Energy use was also reduced with the hospital's new low static pressure duct system, which reduced friction losses using larger-diameter air ducts and lower air speeds.

In the complex's medical office building, a new high-efficiency gas hydronic space heating system proved to be the big energy-saver, avoiding the higher operating cost of standard electric space heating as well as peak electrical demand charges. The gas system had a higher initial cost than standard electric heating, but a PSE grant covered most of that difference, yielding payback in under one year. "Even with all the energy efficiency measures, we brought our office building in below our budget," marvels Hammes Project Executive Chris Kreifels.

For the entire complex, third party commissioning was supported by PSE to help assure that the building systems were saving energy as intended.

## Annual project savings



\$616,000 in energy costs 5,640,000 kwh per year 329,000 therms per year Investment payback less than 1 year

Whether you're building a new facility or involved in a major remodel, PSE will provide you with useful information, recommendations, referrals, and specifications on available grants and rebates.

Contact us early in the planning or design phase of a new construction project to maximize your opportunity for incentives. For more information, visit **pse.com/mybusiness** or call a PSE Energy Advisor at **1-800-562-1482**.