

Odessa Memorial Healthcare Center



CUSTOMER BENEFITS

- Improved comfort levels
- Guaranteed savings
- Centralized control
- Increased energy efficiency

PROJECT AT A GLANCE

Project Type:
Energy Performance Contract

Location:
Odessa, Washington, USA

Number of Buildings:
1 (27,650 sq.ft.)

Guaranteed Annual Savings:
\$35,070

Energy Conservation Measures:

- HVAC and ductwork improvements
- New chiller and hot water systems
- Window replacements

Environmental Facts:

Odessa Memorial Healthcare Center annually saves energy that is equivalent to ...

- Reducing 246 tons of CO₂ from the atmosphere
- Removing 49 automobiles off the roads
- Planting 67 acres of trees



This small, rural hospital discovered how to get an affordable energy efficiency makeover by teaming with Schneider Electric to execute a performance contract.

The Challenge

Odessa is a farming and retirement community with a small-town ambience in eastern Washington, just 72 miles west of Spokane and 250 miles east of Seattle. It's also home to Odessa Memorial Healthcare Center.

Originally constructed in 1948, this 25-bed critical-access hospital opened its doors in 1950. As the only local hospital for 30 miles around, Odessa Memorial serves 2,500 citizens in Odessa and the surrounding area.

Over the years, Odessa Memorial expanded its capabilities, adding a rooftop helipad and a nursing home. By 2006, though, the pneumatic control system had outlived its useful life, and the hospital needed a cooling system.

Schneider Electric met with hospital officials and proposed a performance contract that would help finance the necessary improvements. In addition to incorporating system design, construction and commissioning, this turnkey solution guarantees the energy savings typically generated by replacing or upgrading building systems. A performance project is funded in a variety of

“Our confidence in Schneider Electric has paid off with both greater comfort and even larger savings than expected.”

Mark Barglof
Hospital Administrator

ways, including general obligation bond funds, maintenance reserve funds, and financing secured against guaranteed energy savings.

Although Schneider Electric originally approached the hospital solely about a performance contract, Odessa Memorial asked Schneider Electric to serve as general contractor for other renovations as well. As a result, Schneider Electric assumed dual responsibilities.

Renovating a facility that had passed the half century mark presented many challenges. The hospital would be occupied throughout the renovation process. Construction crews would have to work around hospital staff and patients, and Emergency Room (ER) services would require relocation during renovation.

The Solution

Schneider Electric staff visited the hospital many times and solicited input from the facilities services staff before beginning the renovation process. Based on field investigations and interviews, Schneider Electric developed a project plan tailored to Odessa Memorial's needs, as well as its budget.

Since Washington State does not have a state income tax, public hospital districts typically ask for special levy monies, which voters historically approve. Schneider Electric also held meetings with the community to gain support for the project.

Acting as the general contractor, as well as the performance contracting provider, Schneider Electric directed the entire team involved in the renovation process – from the hospital staff and the architect to the engineering consultants and subcontractors. Moreover, Schneider Electric was able to minimize disruption to hospital services during the entire renovation process by designing construction phases and schedules with the hospital's patients and staff in mind.

Under the performance contract, Schneider Electric installed new, high-efficiency heating and chilled water systems, added two air handling units (AHU) and direct digital controls (DDC), and commissioned all equipment. With limited space inside the hospital for new equipment, especially in the ceilings, Schneider Electric constructed a penthouse to protect the new air handling units from the elements and to facilitate maintenance.

For the general contracting portion of the project, Schneider Electric oversaw installation of a new roof, window replacements, a new electric service, and fire protection for the hospital. Improvements to outdoor spaces included a new, covered ER entry area with thermal glass in the doors and additional protection from inclement weather on the helipad. Schneider Electric also made HVAC and other improvements to the acute care patient rooms.

Schneider Electric tightly monitored conditions at Odessa Memorial during construction and developed precautions to ensure that the final project met all applicable health care codes for HVAC. The focus was not only on comfort, but also on indoor air quality. Improvements addressed the need to meet fresh air requirements, provide thorough air filtering, install dual fuel supplies and maintain adequate facility temperatures during emergency power operation.

The Bottom Line

After upgrading its facilities and mechanical systems, Odessa Memorial reduced its utility costs by more than \$21,000 in the first six months of 2007 – 18 percent higher than the amount Schneider Electric had guaranteed.

Odessa Memorial collected a \$135,000 incentive from Avista, the local gas and electric utility, because the renovations made the hospital more energy efficient.

Individual rooms now have independent temperature control, and all valves and thermostats are tied into the EMS. A centralized EMS provides full-color graphics, allowing the facilities staff to monitor and manage the heating and cooling systems.