



CASE STUDY: HENDERSON MEDICAL CENTER

Incentives Make Case For Energy Savings

The three-story building complex that comprises the medical center along Siena Heights Drive in Henderson, Nevada, supports a variety of medical service providers. Tenants depend on a central heat-pump/water-heater system to maintain indoor comfort. While cooling and heating costs contribute substantially to the building's overall energy costs, they also have a major impact on tenant satisfaction.

The energy management contractor hired to identify energy savings at the center quickly found energy efficiency improvements to the mechanical system that offered opportunities for savings. The medical center's heat-pump/water-heater system uses two 40-horsepower pumps to transport condensed water to 75 heat-pump units throughout the building. These hard-working pumps operate at full capacity around the clock, regardless of occupancy patterns. The contractor recognized that adding variable speed drives (VSDs) to the pumps would improve operation and substantially reduce energy use, all while maintaining indoor comfort.

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Project Summary

A VSD matches a pump motor's speed to the load, allowing the motor to continually adjust relative to the power needed. This process can cut energy use and reduce wear and tear on the motor and related components.

According to the contractor, NV Energy's incentive played a key role in the property management firm's decision to approve the project because it improved the return-on-investment period and made the project attractive to the management company.



Energy-saving Equipment

Following the installation of the VSDs, electricity use at the medical center decreased significantly. The new equipment is estimated to save 220,000 kWh annually, which is equivalent to an annual savings on the center's electric bill between \$22,000 and \$26,000. Along with energy savings came improvements to the cooling and heating system's performance. "This was a very good experience for everyone concerned," explained the contractor. "The rebate paperwork was simple and the customer received the payment quickly."



Project Results

Building Type: Medical

Project Type: Retrofit

Measures: VSDs

Incentive: \$11,912

Projected Annual kWh Savings: 219,876