AMERESCO Connect to Smarter Energy Solutions.

Washoe County School District

Reno, Nevada

Ameresco has completed five phases of Energy Service Performance Contracts with Washoe County School District and is currently conducting an audit for Phase 6. The $17.3 million project included retrofits at 87 buildings. Annual savings is over $1.1 million. The District is the second largest school district in Nevada.

Strategic Benefits Include

- Lighting Retrofits: Replacement/retrofit of lighting systems at 80 schools and four other District buildings. Converted T12/magnetic ballasts to newer T8/electronic ballast technology and incandescent lamps to compact fluorescent lamps. Installed LED exit signs. ***This lead to a vast improvement in the learning environment and significantly reduced electrical demand and usage.***

- Steam Trap Retrofit: Replacement of older inefficient mechanical bucket traps, at five schools, with new fixed orifice "Steamguard" traps.

- Direct Digital Controls Installation: Added DDC at two schools to control equipment that either had no control or was poorly controlled. ***This resulted in a reduction in electricity and natural gas usage and improved comfort levels in the classrooms.***

- Water Conservation Measures: Installed water conservation devices to reduce domestic water usage at nine schools, which reduced water and sewer charges.

Case Study

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Strategic Benefits Continued

- Vending Miser Installation: Installed Vending Miser control devices on 168 refrigerated vending machines throughout the district. The Vending Miser duty cycles the machines during unoccupied periods thereby significantly reducing the vending machines' electrical usage.

- Trash Compactor Installation: Installed roll-off trash compactors at 18 schools. ***This reduces the costs associated with trash service because of lower collection charges.***

- Boiler Replacement: Replaced old in-efficient boilers, at six schools, with new, efficient, natural gas burning boilers. ***This improves the reliability, safety, and reduced maintenance and natural gas costs.***

- Burner Replacement: Replaced old inefficient burners, at two schools, with new, efficient, natural gas, or combo gas/oil burners.

- Rooftop HVAC Unit Replacement: At four schools, old inefficient rooftop packaged HVAC equipment was replaced with new, high-efficiency HVAC units, resulting in a reduction of electrical and natural gas usage.

- Variable Frequency Drive Installation: Installed VFDs, at one school, on several air handlers that had utilized inlet guide vanes or discharge dampers to vary the flow in variable air volume systems. Variable frequency drives reduce electrical usage by providing more efficient variable air volume control.

- Ventilation Improvement: Improved ventilation, at four schools, where older air handling systems could not be used in the winter months because the existing heating system. Through installation of a heat exchanger at each site, the air is able to be tempered, so that ventilation can be provided to the classrooms in the winter months, resulting in reduced carbon dioxide levels in the classrooms.

Client Reference

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