



# Energy Saving Case Study

## West Sac School District Saves Over \$43,000 in Annual Energy Expenses

***Even with newer HVAC equipment, the school district was able to gain significant energy savings with a quality maintenance program.***

The West Sacramento Washington Unified School District (WUSD) has 11 school sites serving over 7,000 students with over 700 employees. WSUD has a broad range of educational, sports, office and auditorium buildings that range in size and application. As one of Yolo County's largest school districts, WUSD operates 7 elementary schools, a comprehensive high school, and alternative high school, and kindergarten/pre-school program, and an adult education program. WUSD maintains over 840,000 square feet of educational and administrative space.

WUSD's goal was to ensure maximum life a facility or piece of equipment with a minimum amount of repairs, replacement or loss of use while keeping expenditure low. In teaming with Cooper Oates, the HVAC contractor who administered the PG&E sponsored AirCare Plus Program, WUSD has been able to realize its goals of lowering expenses and improving the longevity and performance of their mechanical equipment.

### Delivering the Savings

As part of an ongoing effort to improve building efficiency and equipment longevity, WUSD welcomed the energy and cost-saving opportunities presented by Cooper Oates and the AirCare Plus Program. The program works to improve the efficiency of HVAC units for PG&E's small to medium-sized commercial electric customers. It all starts with a no-cost tune-up. In the case of WUSD all major HVAC unit components throughout their 11 sites were inspected and adjusted for optimal performance and energy efficiency.

For WUSD, the benefits of working with Cooper Oates included:

- ▣ No-Cost to WUSD
- ▣ Improved HVAC system performance and longevity (*even with the newer units*)
- ▣ Lower energy expenses
- ▣ Increased comfort for building occupants
- ▣ A positive environmental impact

### Work Performed

Each HVAC unit was inspected by one of Cooper Oates' certified AirCare Plus technicians. Based on the unit diagnosis, service

## Quick Facts

**Name:** Washington Unified School District

**Location:** West Sacramento, California

### Scope of Energy-Saving Measures:

11 school sites with 608 HVAC units of varying age but with predominantly newer HVAC equipment. All HVAC units were diagnosed and serviced for increased efficiency through measures relating to refrigerant, thermostat controls, and economizer optimization

### Estimated Annual Savings\*

- ▣ 290,609 kWh
- ▣ 124.72 kW
- ▣ Approximately **\$43,485** annual savings

### Program Benefits

- ▣ No-cost HVAC tune-up and services
- ▣ Save money through decrease in overall energy costs
- ▣ Increase equipment performance and longevity
- ▣ Reduced impact on environment

\* Estimated annual cost savings based on a utility rate of \$0.15 per kWh.



was performed to improve performance. Roughly two thirds of the serviced units required modifications of thermostat settings as they guarantee the HVAC unit is running only when necessary. Approximately three-fourths of the serviced units received refrigerant charge adjustments. Having a proper refrigerant charge reduces energy consumption while extending the life of the compressor. A number of units also receive adjustments to the economizer, which offers further savings by providing as much “free cooling” with outside air as possible.



*Washington Unified School District's  
Southport Elementary School*

## Client Feedback

“Working with Cooper Oates and the AirCare Plus Program was a great decision,” says Scott Lantsberger, Assistant Superintendent of Business Services. “We were able to substantially increase the efficiency of our equipment at no cost to the district, while re-directing our existing resources towards other critical maintenance areas needing their skills and attention.”



*Washington Unified School District's  
Westmore Oaks Elementary School*

In total, 608 units were diagnosed and serviced from 11 different district sites. The adjustments made are estimated to reduce energy use by approximately 290,609 kWh, saving approximately **\$43,485 per year**.



## Our History

For over half a century, Cooper Oates has proudly served businesses and commercial properties throughout the Sacramento Valley and Northern California. From our beginnings as an air conditioning installer, to our current capability as a full-service mechanical provider, we have placed your facility's comfort and your business's profitability front and center.

Our team of experts has extensive experience designing, installing, monitoring, and servicing a broad range of mechanical projects including:

- Office Buildings
- Industrial / Conditioned Warehouses
- Hospitals / Clinics / Labs / Medical Offices
- Educational Facilities
- Server / Datacenter / Clean Rooms
- Restaurants / Commercial Kitchens
- Manufacturing / Distribution Centers