



Energy Systems Optimizations Save Northern CA School District \$180,000+ Annually

Plumas Lake Elementary School District utilized a Solar PV system to achieve 100% of their total energy consumption; a win for both the district and the community.



The Challenge

Plumas Lake Elementary School District, located 30 miles north of Sacramento in Northern California, educates 1,270 students in three different schools: Rio del Oro and Cobblestone house kindergarten through 5th graders, while Riverside Meadows educates 6th through 8th graders.

In 2016 the rural area was booming with new jobs, bringing in an additional 79 new students. To keep up with the population boom, the district passed a bond that would build a new middle school and high school for the area, plus make improvements to existing buildings. The primary reasons the district was interested in completing this project included:

Growing population

The booming district wanted to protect itself from rising utility costs. As more new students enrolled year after year, it was necessary to cut costs where possible to preserve and grow educational programs to meet their needs.

Sustainability

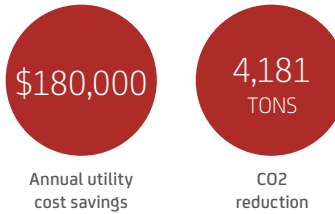
The district had exorbitant, rising energy costs, and they wanted to be a steward of the environment, and while also setting a good example for the community, students and surrounding area with a solar PV project.

The Solution

To be more sustainable and protect the district from rising energy costs, a Solar PV system was mounted on the roofs of the three schools. The system included a web-based monitoring system for ease of maintenance and performance reporting, with a real-time solar production dashboard display.

The Impact

The Solar PV system achieved 100 percent of the facility's total energy consumption, and had a positive impact on the entire



Why Centrica Business Solutions?

- Solar installations are custom-designed to the specific site to maximize energy production based on available sunlight
- Centrica Business Solutions' experience and track record demonstrate preparedness to help organizations find the best solar solution for their business
- 24/7 service, testing and maintenance plan, offering complete peace of mind

community. The students in the school district received a first hand lesson in sustainability and the project's impact. The school district was proud of setting an example in sustainability for others to follow. The project cost was \$2.1 million with a 12 year payback period.

- Financial Impact: \$180,000 / Annual cost savings
- Community Impact: 4,181 Tons / CO2 reduction

By removing this quantity of CO2 from the atmosphere, this project will have the same effect on the local community as:

- 69,134 tree seedlings grown for 10 years
- 5,460 acres of U.S. forest preserved
- 903 cars off the road for one year
- 470,462 gallons of gas saved