

U.S. Postal Service Brings Energy Efficiency, Solar Power to Northern California Processing Facility

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ABSTRACT

As part of its ongoing drive to optimize efficiency and conserve natural resources, the U.S. Postal Service (USPS) completed major energy efficiency upgrades and one of the largest federal solar power installations in the nation, at the USPS's West Sacramento Processing & Distribution Center. The 573,000-square-foot mail facility is a major Postal Service hub in Northern California, employing more than 1,200 people and processing 8 to 10 million pieces of mail daily, around the clock. Chevron Energy Solutions developed, engineered and constructed the project, which included a solar photovoltaic system mounted on a new parking structure; energy efficient lighting systems; heating, cooling and ventilation systems; air compressors; and energy management controls.

The improvements will reduce the facility's annual electricity purchases by more than \$615,000 and its power consumption by more than 33 percent, or about 5.5 million kilowatt-hours per year. The project will also lower natural gas use by about 43,000 therms per year. Together, these reductions translate to avoided local electric utility emissions of about 3,900 tons of carbon dioxide annually, the equivalent of planting 1,100 acres of trees.

The project's completion was celebrated in October 2004 at an event that was held in the shade of the solar-paneled parking canopy and attended by USPS and other government officials. The 403-kilowatt solar electric system, a product of PowerLight Corporation, is the largest

photovoltaic installation at a USPS facility. Covering nearly 28,000 square feet, it uses 2,120 solar panels to convert sunlight into power for the facility while providing shade and protection for 180 vehicles.

“Energy conservation and the use of renewable energy are a growing part of USPS operations nationwide,” said Ray Levinson, USPS. “This project is an important step towards our goal of operating our facilities as energy-efficiently as possible.”

The total cost of the project, \$6.3 million, was funded entirely through energy savings and utility rebate incentives, requiring no contribution from USPS’s capital budget. The solar portion of the project is expected to receive a \$1.6 million rebate from PG&E’s self-generation incentive program. In addition, the Postal Service is expected to receive a PG&E rebate of up to \$300,000 for energy efficiency improvements made at the facility.

“Pacific Gas and Electric Company is proud to have partnered with the Postal Service on this important project,” said Beverly Alexander, vice president of customer satisfaction at PG&E. “Solar rebates represent one of the many ways in which PG&E helps customers meet their energy needs. PG&E has a long-standing commitment to energy efficiency, conservation and renewable energy, and this project demonstrates how a facility can take advantage of all of these alternatives.”

Since 1985, the USPS has reduced its energy consumption nationally by more than 20 percent, installed solar power systems at facilities in California, Colorado, Rhode Island, Texas and Puerto Rico, and begun using geothermal technology to provide heating and cooling at facilities in Oklahoma and Maryland. Over the past year, it also dedicated new “green” post offices in Ft. Worth, TX, and Corrales, NM, and completed energy efficiency upgrades at two facilities in Memphis, TN. In addition, the USPS operates 30,000 alternative fuel vehicles (AFVs)—the largest AFV fleet in the nation, using ethanol, compressed natural gas and electricity.

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