

Alameda County Expands Nation's Largest Rooftop Solar Electric System to 1.14 MW

PowerLight's PowerGuard® Solar Electric Roof System to Provide Alameda County With the Fourth Largest Solar Installation in the World

OAKLAND, CA, DEC. 4, 2001 – The Alameda County Board of Supervisors announced today that it is expanding what is already the nation's largest rooftop solar electric system, located atop the County's Santa Rita Jail in Dublin, California. PowerLight Corporation of Berkeley, CA, the leading manufacturer and solutions provider of large-scale solar electric systems, has been commissioned to increase the current solar array from approximately 640 kilowatts by another 500 kilowatts, to 1.14 Megawatts. When completed next spring, this expanded system will cover approximately three acres of the jail's roof, and will be the fourth-largest solar photovoltaic (PV) system in the world.

"The decision to expand solar electric generation capacity at the Santa Rita Jail was easy because the economics were so compelling," said Alameda County supervisor Scott Haggerty, President of the Board of Supervisors. "Harnessing the sun's power to generate clean on-site electricity is not only a good investment, but it's also a safe way to become more electrically independent and environmentally-friendly at the same time."

"The on-site solar power and energy efficiency solutions we implemented through our relationship with PowerLight reflect the future of the energy industry," noted Alameda County Energy Program Manager Matt Muniz. "With solar electric generation, we are able to reduce our overall energy cost, and in particular, reduce our purchases of expensive, peak energy from our local utility. With energy efficiency and demand side management technologies, we are able to reduce costs even further than solar alone, while at the same time revitalizing our facility."

Alameda County commissioned PowerLight in early 2001 to help reduce the Santa Rita Jail's electric utility bill two ways. First, by displacing utility electricity with clean on-site solar power and secondly, by reducing the facility's overall need for electricity through a combination of added insulation from the solar roof tiles and a comprehensive upgrade to the jail's central plant, including state-of-the-art cooling equipment and controls. CMS Viron Energy Services, a leading engineering-based energy services and performance-contracting company implemented the central plant upgrades.

The combined on-site solar power and energy efficiency upgrades have delivered impressive net savings to the County. To date, the combined project has reduced the facility's peak summer demand consumption of grid-generated electricity by 25%. Already nearly two million kilowatt-hours of annual electricity consumption are diverted from California's electric grid by the Santa Rita Jail project. These savings benefit all state consumers by reducing grid power purchases, most of which occur during peak electrical demand hours – at times when state transmission lines are the most constrained.

Based on current PG&E electricity rates, the total project savings including the announced 500 kilowatt system expansion will save Alameda County approximately \$400,000 in the first year of operation and about \$15 million in net savings over the 25-year life of the project. The completed 1.14 Megawatt system will produce enough electricity to supply 30% of the jail's daytime needs. This is equivalent to powering more than 1,000 homes in the Bay Area and displace more than 3 million pounds per year of harmful emissions (CO2, NOX, SOX) that cause smog, acid rain and global warming.

"We applaud Alameda County's leadership in implementing smart energy strategies using clean on-site solar electric power and energy conservation," noted PowerLight CEO Tom Dinwoodie. "Alameda County is demonstrating how local governments can improve air quality while saving taxpayers' dollars."

Alameda County did not have to authorize any general fund revenues to finance its solar electric generation and energy efficiency projects. Funds for the projects come from the California Energy Commission's (CEC) Emerging Renewable Buydown program, incentives from California PUC, and prior energy efficiency incentive payments. The County has also accessed a low interest rate energy efficiency loan from the CEC. The debt service for this loan will be paid by the project's electrical cost savings.

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