



New 'smart grid' introduced at Santa Rita Jail

Federal, state and local officials gathered today with representatives from Chevron to inaugurate a new energy management system at the Santa Rita Jail in Dublin.

In the event of a power loss, the jail could now "island" itself and operate self sufficiently using its own clean energy for up to eight hours, Alameda County Board of Supervisors president Nate Miley said at a morning news conference held at the jail.

State Assemblywoman Nancy Skinner, D-Berkeley, called the project "brilliant."

She said the new system at once achieves public safety, fiscal responsibility, economic development, and environmental goals.

The \$11.7 million project was conceived and built by Chevron Energy Solutions, a subsidiary of Chevron Corp., in partnership with the county.

Projected to save taxpayers approximately \$100,000 each year, the microgrid, also called a "smart grid," will allow optimized power consumption and storage in a new 2-megawatt battery housed in six containers on the periphery of the jail.

Matthew Muniz, energy program manager at the Alameda County General Services Agency, said 2 megawatts is roughly equivalent to 1 million cellphone batteries, or 67 Tesla car batteries.

The new battery will allow the jail to purchase electricity from PG&E during non-peak hours -- at night for example -- then store that power for use during peak hours when the price goes up.

According to Muniz, the new system is significant because the power used by the jail accounts for 30 percent of the county's total energy consumption in its public buildings and properties.

The Santa Rita Jail has long been at the forefront of new energy technologies, Sheriff Greg Ahern said.

In 2001, the Board of Supervisors approved a 6,000-tile solar panel system, which at the time was the largest such solar panel system in the United States. The jail later added a 1-megawatt fuel cell cogeneration plant and wind turbines.

Miley said that generating much of its own power has allowed the jail to lower costs significantly.

He also noted that the system has benefits beyond just saving money. Under the previous system, a power loss at the jail used to result in seconds of total darkness before the generator would kick in.

With the new smart grid, he said, the transition to the jail's own power source is virtually instant.

According to Muniz, the county paid about \$100,000 for this latest project. About \$2 million came from the California Energy Commission's Public Interest Energy Research Program.

Additional funding came from the U.S. Department of Energy and the California Public Utilities Commission.