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East Bay News

Santa Rita Jail's new high-tech energy system

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ALAMEDA COUNTY, Calif. (KGO) -- Officials at the Santa Rita Jail say they can't afford to have power outages and they say a new high-tech green energy system could mean they'll never have one again.

The project has widespread applications for hospitals and other facilities that must be up and running 24 hours per day.

Behind the twisted barbed wire that surrounds one of the largest jails in the country, there is a "smart grid," a system that links three separate green energy sources into one. "Santa Rita Jail now has the capability to 'island' itself off the main utility grid and independently generate and store its own energy," explained Alameda County Supervisor Nate Miley.

Santa Rita already had extensive banks of solar panels on its 113-acre spread. To the east, there are several wind turbines and a 1-megawatt fuel cell plant. Together, the integrated "smart grid" not only generates power on a daily basis, but stores it in batteries, the same kind used to run an electric car. "If the power goes out, it would seamlessly island from the jail, keeping the renewable resources and fuel cell running and then operate the jail independently," explained Osama Idrees, the project manager for Chevron Energy Solutions, which designed and built the grid.

Santa Rita houses 4,000 inmates, the fifth largest jail in the country. It's a 24/7 operation that can't afford to be without power, even for a few minutes. "This is very important to jail security because in the past, we've experienced power outages and those power outages put our staff at risk, as well as other inmates who have wishes or intentions to harm other inmates," Alameda County Sheriff Greg Ahern.

The \$7.7 million project was jointly funded by the state and the U.S. Department of Energy. The smart grid is expected to save Alameda County about \$100,000 per year in energy costs.

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