

**COUNTY OF VENTURA  
2014 Water-Energy Grant Proposal**

*Santa Paula Hospital Water and Energy Modernization Project*

**Proposal Monitoring**

The proposed project consists of replacing three chillers, an air cooling tower, four air handling units, and two high-pressure boilers at the Santa Paula Hospital. Proposed equipment replacements are expected to provide the following benefits:

1. Reduced water consumption through:
  - a. Reduced drift
  - b. Increased cycles of concentration
  - c. Reduced blowdown
  - d. Reduced uncontrolled water losses and makeup water demand
  - e. Reduced water use from replacing an existing water cooled chiller (Chiller #2) with an air cooled chiller
2. Reduced energy consumption through:
  - a. Higher operating efficiency for all new equipment

General Monitoring Methodology:

The primary parameters to be directly measured for performance monitoring are the following:

- Water use in hundred cubic feet per month (hcf/month)
- Electrical energy use in kilowatt hours per month (kWh/month)
- Natural gas consumption in therms.

In order to evaluate these savings, monthly water, electricity, and gas consumption data for the Santa Paula Hospital will be compared post-construction against pre-project consumption. For example, it is proposed that post-project January water and energy use be compared against the average water and energy use for January 2012, 2013, 2014, and 2015. Current and historical use data will be normalized by the number of patients served at the Hospital during the relevant time period as these numbers may affect monthly water and energy use at the Hospital.

GHG reductions can be calculated based on the water and energy savings assessed and based on methods used in Attachment 2, including GHG emissions per AF of water and GHG emissions per kWh of energy.

Based on the project schedule, monitoring would be performed from December 2017 to February 2018. Ongoing monitoring will be performed as necessary to verify continued project performance.