

KAISER PERMANENTE, SAN DIEGO, CA

HVAC, Integrated Controls and Lighting

Summary

Kaiser Permanente has a corporate goal to significantly reduce its energy usage across its facilities, and turned to Willdan's technical team to provide assistance with developing recommendations for energy project implementation. Willdan has assisted Kaiser with reviewing and analyzing a local San Diego portfolio of 10 buildings. Through Willdan's assistance, Kaiser is enjoying significant energy savings as a result of implemented projects that include HVAC upgrades, integrated controls and lighting retrofits. Kaiser has demonstrated strong management support for these efforts, and plans to complete future energy efficiency upgrades that include chilled water optimization controls, the transition of pole lighting to induction options, and the replacement of fan motors with electronically commutated motors.

Goals and Challenges

Strong Management Commitment Fast-Tracks Energy Savings and Payback – Kaiser Permanente had a strong commitment from management to pursue energy reduction opportunities that would provide the best payback to the organization and would help free up operating budget due to reduced energy costs over time. Energy efficiency is business-critical for Kaiser Permanente because of the need to control costs and minimize operational impacts on patient services. In order to implement an effective energy reduction program, Kaiser required technical assistance to provide the strategy and guidance necessary for effective project implementation.

Highlighted Result: Willdan assisted Kaiser Permanente in achieving their ambitious goals for energy efficiency across their portfolio, with project financing approved for utility on-bill financing at zero interest cost.

Solutions and Outcome

A Holistic, Integrated Approach – Willdan engineers set to work to assist Kaiser Permanente by conducting site visits of its various facilities. Based on the data and information collected during these visits, Willdan then developed recommendations for energy projects that could be implemented across the portfolio, in the form of energy assessments and investment-grade audits, depending on the facility type and complexity.

Estimated Annual Utility Cost Savings:

 \$1,177,300

Total Utility Incentive Rebate:

 \$887,751

Energy Savings:

 8,897,991 kWh

 100,078 therms

Project Implementation Costs:

 \$3,000,000

Project Simple Payback:

 1.8 years

Willdan engaged in strategic energy management for Kaiser, working with management to introduce new energy strategies and technologies to maximize, tune-up or retro-commission existing facilities. We engaged early on with internal Kaiser stakeholders who are invested in the financial decisions, as well as operational requirements, to clearly define program goals and gain consensus. Our team worked closely with facility and energy managers to identify measures that would result in the highest energy savings and shortest payback periods. As a result, the following measures were recommended by Willdan and implemented by Kaiser Permanente, and utility incentives were used to help reduce the cost of implementation:

- Convert HVAC units from constant air volume (CAV) to variable air volume (VAV)
- Implement central plant optimization strategies
- Revise equipment schedules to shut off during unoccupied times
- Implement supply air temperature reset strategies
- Implement economizer repairs for air handler units
- Conduct upgrades of interior and exterior lighting

Kaiser and Willdan currently are evaluating facilities throughout San Diego to identify additional opportunities to save energy. Willdan and Kaiser also are testing emerging and new technologies, such as:

- Battery storage
- Ongoing commissioning software

Erika Schimmel, the local utility Account Executive, sees this as key to the company's success, "Kaiser is very willing to listen to different opportunities and receptive to discussing new options. Their strong corporate goals really do lead to powerful local action."

About Kaiser Permanente

Founded in 1945, Kaiser Permanente is the largest nonprofit health care organization in the United States, with well over 1,000 facilities in nine states. California hospitals comprise less than 30 percent of Kaiser Permanente's facilities statewide portfolio but account for close to 60 percent of its energy usage. In San Diego, Kaiser has made great strides in reaching these sustainability goals and has actively participated in available utility incentive programs.



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Featured Solutions

- Energy Efficiency
- Energy Planning
- System Optimization
- R&D, Studies, and Emerging Technology