



Health Care Integrated Case Study



Kaiser Permanente Thrives on PG&E Partnership

Energy Programs Reduce Carbon Footprint, & Generate Millions in Savings for Healthcare Giant

Savings Results:

Retrocommissioning Projects:

PG&E incentives: \$250,000

Energy savings: \$900,000

New Construction Projects:

PG&E incentives: \$500,000

Energy savings: \$700,000

Self-Generation and Solar Projects:

PG&E incentives: \$790,000

Total overall savings, (combined PG&E incentives and energy savings):

2007: over \$1.5 million

2008: over \$2.3 million

Kaiser Permanente's Energy Challenge

Founded in 1945, Oakland-based Kaiser Permanente is the largest nonprofit health care organization in the United States, with well over 1000 facilities in nine states. 19 of the company's 35 hospitals are in Pacific Gas and Electric Company's (PG&E) service area, and their 24/7 operations make Kaiser Permanente one of California's largest energy consumers. Their 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.

Environmental stewardship is a core value of the company. Kaiser Permanente was the first health care organization to sign on with the Climate Registry (formerly the California Climate Action Registry) and helped found the Global Health and Safety Initiative, a consortium of leading healthcare organizations dedicated to the "greening" of the healthcare industry. The company's internal programs have included a system-wide mercury reduction campaign and in conjunction with a carpet manufacturer, the development of the first PVC-free carpet backing that meets the stringent performance requirements for healthcare.

A Holistic, Integrated Approach

Energy efficiency is business-critical for Kaiser Permanente because of the need to control costs and minimize the impact of brownouts on patient services. The company has taken a holistic, strategic approach that integrates multiple programs to conserve energy, produce more energy from renewable resources and use non-renewable fuels more efficiently. An internal Environmental Stewardship Council provides oversight and governance for Kaiser Permanente's integrated strategy, which consists of five elements:

- Technology, including energy-efficient design/operating standards and capital retrofit projects.
- Financials, including consumption monitoring and PG&E billing data to help control and hedge energy costs.
- Governmental and regulatory issues.
- Sustainability and self-generation.
- Oversight, reporting and standards.

Kaiser Permanente's philosophy and structure have helped to drive a rewarding partnership with PG&E through many of its programs, including Retro-Commissioning, Savings By Design, Non-Residential Retrofit, Non-Residential New Construction, Self-Generation Incentives and Demand Response. Their overall savings – avoided energy costs combined with PG&E rebates – topped \$1.5 million in 2007 and soared well over \$2.3 million in 2008.

Rewards of Retrocommissioning

PG&E's Retrocommissioning program, delivered by an energy program implementer (Quest) under contract with PG&E, has produced substantial rewards for Kaiser Permanente with low-tech fixes of simple problems detected by energy audits. For example, auditors detected multiple cases of fans, air conditioners and heating units operating 24/7 in facilities that were in use ten hours a day – an issue easily addressed with automatic controls and variable frequency fan drives.



Kaiser Permanente Thrives with PG&E

"If you walk the path of sustainability, the best energy is the energy that you don't use. So energy conservation is key to both our strategy and our commitment to environmental stewardship."

Don King,
Executive Director of
Facilities and Clinical
Technologies,
Kaiser Permanente



In 2008, they executed six projects suggested by Retrocommissioning surveys, generating \$264,622 in PG&E rebates and avoiding energy costs of well over \$900,000, for a total return of nearly \$1.2 million. Kaiser Permanente's Walnut Creek medical center reaped overall rewards of more than \$60,000 in one year.

"Green" Construction Greens the Bottom Line Too

In 2007-08, Kaiser Permanente built two new hospitals, three medical office buildings and a data center in Northern California. All these projects were supported by PG&E's Savings By Design program, which partners with designers and architects to maximize energy efficiency in new buildings, and the Non-Residential New Construction program. The six projects combined produced over a half-million dollars in rebates and estimated energy savings of nearly \$1.3 million.

PG&E's Self-Generation Incentive program supported a tremendously rewarding co-generation microturbine project at Kaiser Permanente's new Vacaville hospital. The new equipment captured boiler heat and recycled it through a natural-gas-powered generator, increasing its efficiency thereby reducing energy costs. The project generated a massive PG&E rebate of \$624,000. Another Self-Generation Incentive of \$96,000 has been used to launch Kaiser Permanente's pilot sustainability project, a rooftop solar installation at its new Modesto Medical Center.

The Demand For Incentives

Kaiser Permanente participates in PG&E's Demand Bidding Program, responding to day-ahead PG&E calls to ease the stress on the energy grid. When a Demand Response event is called, they bid on energy load shift for the following day and collect incentives for reducing energy consumption in their buildings. The company has automated the Demand Response process in two of its administrative facilities with software that allows PG&E to implement power reductions directly, generating even larger rebates for Kaiser Permanente.

Consultation on Regulations and Rates

Kaiser Permanente considers it a business imperative to stay on top of the regulatory environment, particularly changes by the California legislature and the state Public Utilities Commission. Kaiser Permanente frequently benefits from the advice and counsel of PG&E's experts on new regulations that will affect their energy policy, such as the California Global Warming Solutions Act of 2006, which mandates reduced greenhouse gas emissions, and the changing Title 24 Energy Efficiency Standards set by the California Energy Commission.

PG&E consults with Kaiser Permanente via educational outreach. PG&E recently held free workshops for Kaiser Permanente facilities managers to explain new Bay Area and San Joaquin Valley regulations on NOx emissions from boiler systems – rules requiring extensive retrofit or replacement of their boilers.

PG&E also continuously advises Kaiser Permanente on the most advantageous tariffs and rates available. Several years ago, a PG&E rate analysis recommended changes that saved the company nearly \$100,000.

Partnering with PG&E

PG&E business customers interested in learning how to develop a comprehensive energy strategy are invited to contact their PG&E representative or call PG&E's **Business Customer Service Center** at **1-800-468-4743**. More information is available at www.pge.com/mybusiness. It's a step that the nation's largest healthcare provider would heartily recommend: "Kaiser Permanente has had a wonderful partnership with PG&E, and it has set the stage for our national energy program," says Kaiser Permanente's Senior Energy Consultant, Jeff Keyak. "PG&E is outstanding among our utility suppliers. They're special because of the quality of our communication – it's two-way and it's healthy."

