

## CASE STUDY



# The Claremont Resort and Spa



“The Claremont Resort and Spa is not your traditional hotel and we are always looking at upgrades and enhancements. It is a continuous process to review energy-efficiency projects as a part of any upgrade and we receive very strong support from the owner.”

**Michael Czarcinski**  
General Manager  
The Claremont Resort and Spa

## ENERGY-EFFICIENT RETROFITS

The Claremont Resort and Spa enriches the guest experience while lowering energy costs.

Established in 1915, the elegant Claremont Resort and Spa in Berkeley was conceived as an English estate. In 1991, The Claremont Resort and Spa embarked on a series of energy-efficiency programs that resulted in an enriched atmosphere for guests as well as ongoing energy and cost savings.

The six-building complex includes meeting space, an expansive workout facility and spa, and a full service restaurant. The management team sought to stabilize electricity consumption and cost, while increasing occupancy rates, adding square footage, and enhancing guests' experience.

Incentives and rebates from Pacific Gas and Electric Company (PG&E) helped The Claremont Resort and Spa achieve those objectives: consumption and costs remained stable for the years 2004 through 2006.

## MULTIPLE PROJECTS MAXIMIZE BENEFITS

### Lighting Retrofits Throughout the Facility

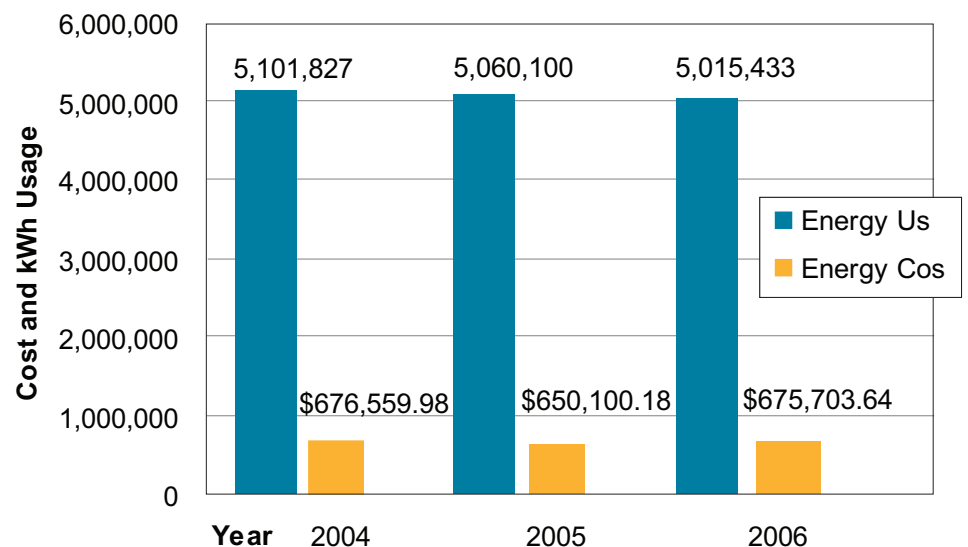
In 2006, The Claremont Resort and Spa staff changed task, ceiling, desk fixture, and bathroom heat lamps in the guest rooms, lobby, corridors, and other public areas. Building engineers, management, and housekeeping collaborated, juggling occupancy schedules and measuring lighting levels in each room to ensure both energy efficiency and aesthetic appeal.

Over the course of the five-week project:

- Compact Fluorescent Lamps (CFLs) replaced incandescent light fixtures in each of the The Claremont Resort and Spa's 279 guest rooms
- CFLs and fluorescent fixtures replaced incandescent lighting in public areas
- New T8 fluorescent lamps with electronic ballasts were installed. They provide substantial energy savings over the older, less-efficient incandescents they replaced



## THE CLAREMONT RESORT AND SPA ENERGY COST AND USE 2004 THROUGH 2006



# The Claremont Resort and Spa

Established in 1915, The Claremont Resort and Spa in Berkeley has achieved more than \$161,000 in energy cost savings and taken advantage of various PG&E Customer Energy-Efficiency Programs.

Michael Czarcinski, General Manager, The Claremont Resort and Spa said guests commented “that the lighting project in 2006 gave a brighter feel to the property in public areas, while employees gave positive feedback about the energy savings.” The CFL retrofit project satisfied all of The Claremont Resort and Spa management team’s main considerations, which were:

- Improved guest experience – the new CFLs provided more light output per watt than the older fluorescents
- Profitability – the simple payback period was less than one year
- Safety – guests see better around the resort, which translates into increased safety
- Maintenance gains – longer life bulbs allow the housekeeping and engineering staff to focus on other issues such as preventable maintenance

## ADDITIONAL ENERGY-EFFICIENCY PROGRAMS

### Chiller Improvements

- An energy-efficient chiller replaced a high-maintenance model, resulting in considerable savings

### Refrigeration Equipment Maintenance

- The health code required the replacement of refrigerator door gaskets. The models technicians chose yielded energy conservation benefits

### Lighting Time Clocks

- Lighting time clocks installed allows for ease of scheduling for selected lighting

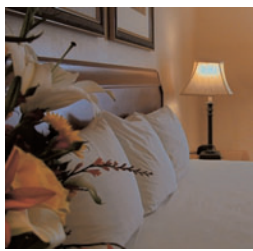
## INCENTIVES INCREASE THE RETURN ON INVESTMENT

These projects earned The Claremont Resort and Spa more than \$63,000 in incentives.

The incentives strengthened the return on investment for energy-efficiency measures by greatly reducing implementation costs.

The CFL retrofit project, completed in 2006, yielded almost \$13,000 in rebates from PG&E. A \$32,000 rebate from PG&E influenced The Claremont Resort and Spa to replace an existing chiller with a more efficient one rather than maintain it.





# The Claremont Resort and Spa

## IMMEASURABLE SAVINGS - IN KILOWATTS AND DOLLARS

The combination of energy-efficiency measures has saved The Claremont Resort and Spa a total of more than 1.2 million kilowatt-hours per year and reduced electricity demand by 260 kilowatts. Estimates indicate \$161,000<sup>1</sup> in annual energy cost savings. Energy-efficiency measures implemented since 1991 are summarized in Table 1.

TABLE 1: KEY ENERGY EFFICIENCY MEASURES

Measure	Annual kWh Reduced	kW Reduced	PG&E Rebate
Replace Guestroom And Public Area Lamps With CFLs	473,185	181.8	\$ 12,872
Install Cold Cathode Lamps	25,051	2.86	\$ 624
Replace Inefficient Chiller	441,112	36.50	\$ 31,868
Retrofit To T8 Lamps And Electronic Ballasts	230,056	36.90	\$ 16,632
Replace Refrigerator Door Gaskets	39,512	4.52	\$ 1,505
Install lighting Time Clocks	1,423	0	\$ 27
Totals	1,210,338	262.55	\$ 63,528

1. Projected cost savings calculations are based upon an aggregate cost of 13.3¢ per kWh and projected total annual kWh saved, excluding renovations and increased occupancy.

## SIGNIFICANT REDUCTION IN POLLUTANT EMISSIONS

Producing electrical energy from non-renewable resources such as fossil fuels generate carbon dioxide (CO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and nitrous oxide (N<sub>2</sub>O). These pollutants have been linked to ecological problems including global warming and acid rain. Decreasing electricity and natural gas consumption curbs the production of these harmful pollutants. Table 2 summarizes the emissions reductions for the energy-efficiency measures implemented by the resort.

TABLE 2: LIFE CYCLE SUMMARY (20 YEARS)

Pollutant	Emissions Reduced <sup>2</sup>
CO <sub>2</sub>	14,342 tons
N <sub>2</sub> O	11.66 tons
SO <sub>2</sub>	3.86 tons
Volatile Organic Compounds (VOCs)	1,480 pounds
Mercury	1,080 milligrams

2. Emission avoidance estimates are calculated based upon the California electricity emissions factors listed in the Cleaner and Greener Environmental Program report, created by the Leonardo Academy, April 2004.

## HOW DOES PG&E HELP?

PG&E can help you control your operating expenses by building energy efficiency into your business. Services include energy analyses of existing facilities, design assistance for planned projects, equipment rebates, project incentives and education and training.

Contact your local PG&E representative or call **PG&E's Business Customer Service Center** at **800-468-4743** for more information or visit [pge.com/biz/rebates](http://pge.com/biz/rebates).

Incandescent light fixtures in the public areas and each of the hotel's guest rooms were replaced with Compact Fluorescent Lamps, resulting in significant energy savings, PG&E incentives, and a one-year simple payback.





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