



Hospitality facilities, by their nature, provide unique challenges and opportunities for energy efficiency. Generally, these buildings operate 24 hours with fluctuating loads and peak occupancy during late afternoon and nighttime hours. Heating, cooling, and ventilation systems in each guest room must be individually controllable, as guests may have varying comfort requirements. Hallways, lobbies, and exterior areas need appropriate lighting around the clock to provide a comfortable and secure environment. On-site laundry operations require substantial energy and water consumption.

Planning should start in the design and remodeling stages, and involve judicious selections for lighting, refrigeration, and space-conditioning systems. PG&E can help you develop an integrated plan, which considers the inherent characteristics of your facility and identifies the most economical and guest friendly energy management strategies.

**For more information on PG&E's ENERGY MANAGEMENT SOLUTIONS, call the Business Customer Center (800) 468-4743 or visit [www.pge.com/business](http://www.pge.com/business)**



**Pacific Gas and Electric Company®**

## SAN FRANCISCO GRAND HYATT WELCOMES ENERGY SAVINGS AND INCENTIVES

**The forty-story Grand Hyatt San Francisco Hotel, in conjunction with PG&E, successfully implemented an integrated energy efficiency plan, dramatically lowering both its energy consumption and bottom-line expenses.** Various energy management strategies implemented in the 603,000 square foot hotel have resulted in annual energy savings of more than 2.3 million kilowatt-hours, producing an annual cost savings of approximately \$300,000. Since the early 1990s, the Grand Hyatt has partnered with PG&E to produce these significant energy savings and earn incentives through several programs.

### ENERGY EFFICIENCY MEASURES IMPLEMENTED

#### Cooling tower and water-side economizer

- Considerable savings were achieved with the replacement of a 33-year-old cooling tower with a state-of-the-art model, combined with a water-side economizer. These two measures yielded a 50% drop in chiller horsepower and decreased the chiller runtime approximately four hours per day.

#### Lighting retrofits

- Incandescent light fixtures in each of the hotel's 685 guest rooms were replaced with compact fluorescent lamps, resulting in the largest energy savings of all the hotel's energy efficiency measures.
- By installing occupancy-activated bi-level light fixtures, the hotel's stairwell lighting is used only when occupied, saving both energy and money without compromising functionality or occupant comfort.
- Incandescent chandelier lamps were replaced with cold-cathode compact fluorescent lights. The use of the more efficient lamps reduced the total energy consumption by 80%. While the appearance and color cast of the 176 chandeliers was a concern, the change resulted in a minimal visual impact, and any differences in the quality of light have gone largely unnoticed by the hotel's guests.





*Incandescent light fixtures in each of the hotel's guest rooms were replaced with compact fluorescent lamps, resulting in the largest energy savings of all the hotel's energy efficiency measures.*

*We are really pleased with our energy and cost reductions. We set goals and achieved them through consistent follow through of our plan, while still meeting expectations of our guests with a safe and comfortable environment.”*

Ed Brandes  
Director of Engineering  
Grand Hyatt

## INCENTIVES

Since the early 1990s, the Grand Hyatt has earned more than \$182,000 in incentives through PG&E programs. These incentives greatly reduced the implementation costs of the energy efficiency measures, effectively shortening the financial payback period. With the help of the incentive programs, the Grand Hyatt was able to pursue a wider scope of energy efficiency measures, further reducing energy consumption and cost.

## ENERGY SAVINGS

The combination of energy conservation measures at the Grand Hyatt has resulted in energy savings of more than 2.3 million kilowatt-hours per year, and has reduced the total electricity demand by more than 370 kilowatts. Estimates indicate \$300,000 in annual cost savings. Key energy efficiency measures recently implemented are summarized in Table 1.

**TABLE 1: KEY ENERGY EFFICIENCY MEASURES**

Measure	PG&E Rebate	Annual kWw Reduced	kW Reduced	Simple Payback
New cooling tower & water-side economizer	\$50,311	359,367	29.66	4.0 years
Stairwell motion sensors & cold-cathode CFLs - Phase 1	\$1,784	35,671	0.58	2.5 years
Stairwell motion sensors & cold-cathode CFLs - Phase 2	\$2,987	59,744	-0.85	2.1 years
Replace incandescent with cold-cathode CFLs	\$4,651	97,739	11.16	.4 years

## EMISSIONS REDUCTION SUMMARY

Producing electrical energy from non-renewable resources (such as fossil fuels) can generate a significant amount of waste, in particular: 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. Other pollutants, such as volatile organic compounds and mercury have been proven to produce harmful human health impacts. Decreasing electricity and natural gas use helps curb the production of harmful pollutants. Table 2 summarizes the emissions reductions for the energy efficiency measures implemented by the hotel.

**TABLE 2: LIFE CYCLE SUMMARY (20 YEARS)**

Pollutant	Emissions Reduced
CO <sub>2</sub>	27,540 tons
N <sub>2</sub> O	22.38 tons
SO <sub>2</sub>	7.41 tons
Volatile Organic Compounds (VOCs)	2,835 pounds
Mercury	2,092 milligrams

**PG&E'S ENERGY MANAGEMENT SOLUTIONS** can help you control your operating expenses through building energy efficiency and demand response capabilities into your new and existing facilities, and your long-range planning. Services include energy analyses of existing facilities, design assistance for planned projects, equipment rebates, project incentives, and education and training. For more information call PG&E's Business Customer Center at (800) 468-4743 or visit [www.pge.com/business](http://www.pge.com/business)

