

# HERE'S TO THE CALIFORNIANS WHO RECOGNIZE THAT PROTECTING THE ENVIRONMENT DOESN'T COME AT A COST, BUT A SAVINGS.



This year, California businesses, local governments, and schools invested in energy efficiency to reduce their ongoing electricity use. They reduced electricity use even further by cutting their demand during peak hours when energy supplies were tight. Cutting electricity use during peak hours — the time of day when energy use is highest — helps ensure reliable, affordable power for everyone. In total, Californians committed to reduce their electricity demand by more than 2 million kW — the equivalent of the capacity of two nuclear power plants. Additionally, roughly 800,000 Californian residents and small businesses lowered their total summer electricity use 20% or more — compared to last summer's usage. Below are just a few outstanding examples of how businesses, governments, and schools in your area took simple actions to help make electricity reliable for everyone.



**Placer Union High School District dropped more than 50% of its peak demand** eight times during summer 2005. The district participated in a demand response program and, when notified, reduced its two biggest loads: lighting and air conditioning. Beginning at noon on critical days, chillers, ventilation fans, and air handlers were shut down by remote control while staff turned off lights. The district also incorporates energy efficiency into all new construction projects.

**Costco Wholesale ties management bonuses to each store's energy costs.** Managers use energy management systems (EMS) to minimize costs and maximize profits. For example, managers use the EMS to adjust artificial lighting to the lowest levels needed based on the amount of natural light from skylights. Costco in City of Industry shaved 150 kW and \$50,000 annually after installing a thermal energy storage system, which produced ice during off-peak hours for daytime air conditioning.

**Lawrence Berkeley National Laboratory's Internet-based demand response system does not require human intervention.** Electricity price signals trigger remote energy management systems to adjust building equipment, including heating, ventilating, and air conditioning (HVAC) equipment and lights. As prices rise, additional pre-planned measures lower demand, saving as much as 40% of peak demand. This technology requires minimal expense, and one-third of California's commercial buildings have existing energy management systems capable of communicating with this product.

**El Dorado Irrigation District (EID) saved 15% on its electric bills** by adjusting pumping schedules. This past summer, during off-peak hours, EID shifted more than 2,000 kW at a water treatment plant and water pump station. EID was invited to present its successful model to other water agencies and will build a new water transmission line to further increase off-peak pumping abilities.

**Sierra Nevada Brewing Co.'s entire facility is equipped with energy saving technologies.** From offices to brewery, total energy use dropped 21% because of upgrades to air compressors, chillers, refrigeration, and lighting. Since 2004, brewery production increased while energy costs were stable. Sierra Nevada Brewing Co. also utilizes a fuel cell power plant to supply most of the brewery's electrical and steam needs. The 1-MW fuel cell produces 50% less emissions than grid power.

**Premier Homes developed the first "zero energy" community in the Sacramento area in 2004.** The 95 homes in Premier Gardens included energy-efficient construction and appliances, high-performance windows, tankless water heaters, fluorescent lighting, and a 2-kW photovoltaic system on the roof to achieve energy savings as much as 60% over conventionally designed new homes. Premier is also developing Premier Oaks, another zero energy community in nearby Roseville.

**California State University (CSU) at Sacramento reduced 2,100 kW at peak,** or 27.5% of its total demand. Savings stem from three high-efficiency chillers that work at night to charge a thermal energy storage tank, which then releases cool water during the day. This requires minimal amounts of electricity during peak hours. In 2004, the CSU system saved nearly 11.3 million kWh and 279,000 therms of natural gas across all 23 campuses. By 2010, the CSU system aims to reduce energy consumption 15%.

**The Home Depot cut 23% of its peak demand** — 10,000 kW in total — by using energy management systems with automatic load-curtalement software. 15 fluorescent lights installed throughout Southern California stores save more than 5.5 million kWh annually. Home Depot also promotes energy efficiency to its customers by selling energy-efficient products and producing and distributing how-to installation videos.

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To learn more about the actions these and other leaders took, visit [www.FYPower.org](http://www.FYPower.org) where you will also find energy-saving tips, incentive information, energy-efficient product information and more to help you save energy, save money, and help protect the environment.

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