

Local Government Case Study:

City of Poway

Background

- Location: San Diego County
- Population: 58,000
- Size: 246 full-time employees
- Contact: Dennis K. Quillen; Assistant Dir. of Public Works, Poway Public Works
14461 Lake Poway Road Poway, CA 92064
Phone: (858) 748-6600
E-mail: dquillen@ci.poway.ca.us
Website: www.ci.poway.ca.us

Summary

Based on figures of the SDCBIA (San Diego County Building Industry Association) Report of the 1999 Summer Power Crunch of San Diego County, the average family paid an increase on average of 10 percent on energy bills for the time period of May 1999 through October 1999 as compared to the average energy cost of the previous three summers. Forecasts predicted an additional two to five percent increase in energy costs for the summer of 2000. Throughout the months of February, March and April, City Hall received numerous requests for rebates and energy reduction information.

The City of Poway chose a multi-faceted approach to conservation and energy efficiency. Target areas included: replacing traffic lights with light-emitting diodes (LEDs); changing to off-peak pumping at water facilities; creating a network between facilities manager's and the city manager's office; and hosting a conservation fair providing collateral and tips to residents. In addition Poway built an energy-efficient low-income housing complex with the goal of reducing inhabitants' energy costs while creating a paradigm of an energy-efficient community.

Referenced in Local Government Guides:

- #4, "Promote Energy Conservation and Efficiency Through Public Services, Incentives and Technical Assistance."
- #5, "Target Low-Income and Senior Populations for Energy Conservation"

Plan

In 2001, the target improvements designated by the city manager's office were traffic lights, city buildings, water and wastewater operations and residents. The city manager increased the awareness of energy conservation with city employees by establishing a citywide energy efficiency team. The city manager also contacted and networked with community businesses and school districts to stress the need for conservation.

Poway also planned to build and maintain a low-income senior apartment complex designed to combat energy use. The design of the energy-efficient community had two goals: 1) Provide staple appliances with low-energy (wattage) usage, mainly ENERGY STAR® equipment; and 2) develop an indoor environment isolated and insulated from outdoor forces. As an energy-efficiency project, the Brookview Village development called for the installing of weatherization products and other energy-efficient equipment. These products included (w/ expected reduction in energy use):

- Advanced heating and mounting of water heaters: 25 percent
- Silicon caulking of double paneled windows: 15 percent
- "Glazing" (tinting) of windows: 10 percent
- ENERGY STAR® Appliances by Maytag (washer/dryer, microwave, refrigerator): 15 percent
- Insulation ("with low U to R ratio": in other words, a greater resistance to the outside environment): 5-10 percent
- Gas Fireplaces: 5 percent
- Miscellaneous: 5 percent

Programs: Conservation

✓ **Work schedules:** Adjusted the operations of city buildings and equipment to more effectively reduce energy consumption.

Programs: Efficiency

✓ **Lighting:** Replaced facility lighting, more than 600 incandescent light bulbs with fluorescent light bulbs, at

city facilities under the City Buildings Lighting Retrofit Program.

✓ **Street lighting:** Retrofit street lighting between March and May 2001, under the LED Traffic Signal Replacement Program. Poway was one of the first cities in San Diego County to install more than 700 new, brighter, energy-efficient traffic signal lights. The city changed its red incandescent lights on traffic signals to red LEDs with a similar grant in 1998. The city will replace yellow LEDs once the Institute of Transportation Engineers and Caltrans approve them.

✓ **Backup battery:** Poway will install battery back up systems at critical intersections to ensure safety in black-outs.

Programs: Public Outreach

✓ **Community fair:** Held in June 2001, the community fair included utilities, city council members and home improvement companies and was set in local high school gymnasium.

✓ **Energy audits:** Provided residents with personal in-home assistance and detailed information about local utility retrofit rebates and CEC rebate and alternative power programs.

Programs: Services

✓ **Community centers:** The Brookview Senior Housing Partners, an affiliate of the San Diego Interfaith Housing Council, privately developed the project, Poway's first affordable senior housing development. Maytag representatives helped ship and install the equipment. Brookview received a discount on these products, but only based on quantity purchased; no special rebate was given to the public. Ground breaking began in October 2000, applications were first accepted in January 2001, the complex was completed in June 2001 and the first residents moved in July 2001. The specifics of the community included:

- 100 apartment units, ranging in rental cost of \$300-\$650 (rounded).
- Over 1,000 seniors applied for apartments. Residents were and are selected on a first-come, first-served basis once they meet all eligibility criteria (income, age, rental and credit history, etc.).
- Residents expect a 10 percent reduction in energy bills with annual savings of \$300 to \$550 per unit.
- Approximate cost of Brookview complex was over \$5 million. Increased cost of each apartment unit, as compared to a standardized unit, ranges from \$1,500 to \$6,000 and the increased value,

on average, per apartment was approximately \$12,000.

Programs: Incentives

✓ **Refrigerator rebates:** Funded rebates of \$50 from SDG&E for the purchase of an ENERGY STAR® refrigerator upgrade.

✓ **Clothes washer rebates:** In an effort to encourage water conservation, city residents were eligible for a \$75 discount toward a high-efficiency clothes washer. Offered through the San Diego County Water Authority (SDCWA), this program allowed customers to request a voucher by calling the toll-free customer service number. The voucher was accepted by participating dealers of high-efficiency washers. The front-loading washing machines use 40 percent less water than their top-loading counterparts. In addition to water savings, the machines also result in an energy savings since they extract 35 percent more water during the spin cycle and thus require less clothes dryer time.

✓ **Toilet rebates:** Continued to sponsor a voucher program with the SDCWA for ultra-low flow flush toilets. The voucher is good for \$75 voucher.

Budget and Finance

The street lighting upgrade cost \$135,072. Ninety-five percent of the funding came from the CEC Local Government Assistance grant. The grant was awarded to Poway through an agreement with SDG&E.

Under the City Buildings Lighting Retrofit Program, Poway received a \$7,525 grant from the CEC to retrofit incandescent light bulbs at city facilities.

Funding of for the Brookeview project was a joint venture of the City of Poway, San Diego County, private lenders and tax credit equity investors, with private lenders and tax credit equity investors providing the majority of construction and permanent funding for Brookview.

Results

City energy consumption dropped a county-high 27 percent in July. Lighting retrofit had expected an annual savings of \$9,640 in energy costs.

Brookview Village was honored at the Sixth Annual Awards Presentation for Outstanding Achievement in Affordable Housing & Community Development, an event sponsored by the San Diego Housing Federation. Brookview Village received the "San Diego Gas & Electric Efficiency Award," the first multifamily development to receive this special recognition. Through thoughtful

design and use of innovative construction materials, Brookview Village was able to exceed already ambitious energy conservation standards by 40 percent, resulting in reduced energy bills for residents and less demand on Cal-

ifornia's energy grid. In a report made public in March 2002 by the SDCBIA and SDG&E, Brookview Community's energy reduction for the summer of 2001 were a community average of 14-16 percent.