

Spotlighting Energy Efficiency in California Communities

As California's communities seek ways to maximize resources in economically challenging times, energy efficiency offers a number of money-saving advantages. Cities and counties are making great strides in reducing energy use at agency facilities through traditional building audits and retrofits. At the same time, they are advancing community energy efficiency through collaboration and outreach activities. Other strategies, such as policies and long-range planning, also support these efforts.

The Beacon Award program (www.ca-ilg.org/BeaconAward), sponsored by the Institute for Local Government and the Statewide Energy Efficiency Collaborative (www.californiaseec.org), recognizes cities and counties in California that reduce greenhouse gas emissions, save energy and adopt sustainability policies and programs. Information from program participants demonstrates leadership in several areas of energy efficiency — in agency facilities, the local community, policy initiatives and planning.

Energy Efficiency in Agency Facilities

Local agencies set an example of fiscal and environmental stewardship by addressing energy efficiency in facilities. The U.S. Environmental Protection Agency estimates that energy savings of 35 percent are possible for many existing buildings. According to the U.S. Department of Energy, energy costs can account for as much as 10 percent of an agency's operations budget. Local agencies have tremendous opportunities to save money by reducing energy use through building audits and retrofits, as the following examples illustrate.

Using a performance agreement with an outside firm, the City of Tulare retrofitted all city buildings — where cost effective — with high-efficiency heating and cooling systems, double-paned windows, efficient fluorescent lighting, programmable thermostats and reflective roof coating.

Santa Clarita used American Recovery and Reinvestment Act funds for lighting retrofits in agency facilities. The retrofits save the city nearly 284,000 kilowatt hours a year, translating into annual savings of approximately \$32,100.

Chula Vista installed new high-efficiency boilers at two municipal aquatic centers, resulting in more than 75,000 therms in annual natural gas savings. The city saves 300,000 kilowatt hours annually from heating and air conditioning energy efficiency upgrades at the city's public works facility. Combined, the projects save the city about \$97,000 annually.

Glendale recently finished a third round of energy efficiency upgrades in 23 city facilities. Retrofits included heating and air conditioning, lighting and vending machine upgrades. The city also installed equipment to transfer energy use to off-peak hours. These efforts reduced annual energy use by 2.3 million kilowatt hours and 47,000 gas therms, saving \$180,000 per year.

Sonoma County implemented 38 energy efficiency retrofit measures in 24 county buildings, including lighting retrofits in 20 buildings and heating and air conditioning upgrades in four facilities. This project reduced the county's energy utility bills by 33 percent, translating to \$1.6 million in savings annually, with a total savings of \$38 million over the 25-year life of the project.

Energy Efficiency in the Community

While cities and counties provide leadership through energy efficiency audits and retrofits at agency facilities, many opportunities exist to achieve energy savings in the broader community through collaboration and outreach activities.

Working with investor-owned utilities provides agencies with funding, expertise and marketing materials to conduct community energy efficiency programs. For example, Pleasanton worked with Pacific Gas and Electric to develop a program targeting business owners. It provides businesses with free energy audits, written recommendations, payback analyses and information on rebates and incentives. As a result, local businesses reduced energy use by more than one megawatt, approximately enough energy to power 300 homes annually.

Many Southern California agencies partner with Southern California Edison through the Energy Leader Partnership program. Palm Springs achieved 9 percent energy savings from 2005 levels in the community. Its partnership activities include marketing, outreach and education to connect the community with utility rebate and energy-saving incentive programs.

Through a formal local government partnership with San Diego Gas & Electric, Chula Vista receives resources to help identify unique ways to promote energy efficiency in its community. City staff attributes much of the program's success to a positive working relationship with San Diego Gas & Electric, as well as the resources the utility provides through the partnership.

Energy Efficiency Through Policy Initiatives

Adopting policies tailored to local conditions yields energy savings both in local agencies and their communities. Cities and counties use a variety of policies and ordinances to achieve energy efficiency in agency facilities, new construction and existing housing stock.

Green building ordinances are one of the most popular ways local agencies make gains in energy efficiency in the broader community. Palo Alto took a comprehensive approach when crafting its mandatory green building ordinances in 2008. The ordinances apply to public and private construction and require new projects to exceed the California Building Energy Efficiency Standards (also known as Title 24) by 15 percent. The ordinances have impacted 98,275 square feet of construction since 2008, with projects achieving an average 24 percent energy efficiency savings, surpassing the ordinance's 15 percent requirement.

Simi Valley's green building ordinance includes a requirement that new construction exceed statewide energy efficiency standards, also known as a "reach code." The first such ordinance in Ventura County, it helped spur other sustainability measures including increased requirements for construction and demolition recycling and landscape water efficiency in new development.

The City of Santa Barbara's 2008 energy efficiency ordinance also exceeds California's standards. The ordinance applies to any new construction, remodels greater than 100 square feet, and upgrades to indoor lighting, heating and cooling systems, and heating or pumps in swimming pools, spas and water features.

Voluntary green building programs can also increase energy efficiency by providing incentives and encouragement. Beaumont's voluntary Green Building Program, adopted in 2009, offers expedited permitting for new construction and building renovation projects that meet its program standards.

La Mesa's development review process encourages new development to incorporate energy efficiency and green building concepts in the early stages of project development. The city provides support to homeowners and offers assistance on ways to improve energy efficiency.

Beyond green building policies, agencies are finding other innovative ways to increase energy efficiency. San Rafael requires home performance audits for any residential remodel that costs more than \$50,000 in order to educate homeowners about energy retrofit opportunities. With funding from Southern California Edison, South Gate plans to develop policies for benchmarking and retrocommissioning city facilities. Benchmarking compares a facility's energy use to similar facilities in order to assess opportunities for improvement; retrocommissioning identifies improvements to help make the building and equipment operate as efficiently as originally designed.

Planning for Energy Efficiency

Local agencies can also promote and guide energy efficiency through long-range planning activities, such as General Plans. For example, San Rafael's General Plan Conservation Element and Santa Barbara County's General Plan Energy Element both address energy.

South Gate is developing an Energy Action Plan through its partnership with Southern California Edison. Energy Action Plans comprise energy use data, energy reduction goals and activities to achieve those goals.

The City of Riverside's Public Utilities Department adopted an Environmental and Economic Effectiveness Effort Plan (also known as the E4 Plan). The E4 Plan outlines strategies to foster Riverside's economic development by:

- Stabilizing utility rates;
- Offering discounted economic development and business retention electric rates to large-scale customers or specific industries;
- Encouraging use of renewable energy technologies; and
- Providing business incentives and energy efficiency programs.

Although Riverside has a municipal electric utility, many of the E4 Plan's strategies may be employed by other cities and counties. For example, in partnership with investor-owned utilities local agencies may promote low-income and water efficiency programs, digital meter installation, and building audits and retrofit recommendations.

Models for Other Communities

As cities and counties face continued budget challenges, local agency best practices include identifying ways to save money and operate more efficiently. The efforts of cities and counties participating in the Beacon Award program offer models of energy efficiency projects and leadership at the local level that can be replicated by other local agencies.

Additional Resources

- ILG's Climate Action & Sustainability Best Practices
www.ca-ilg.org/climate-action-sustainability-best-practices
- Financing Sustainability Resource Center
www.ca-ilg.org/financing-sustainability-resource-center
- Overview of Utility and State Agency Energy Efficiency Support and Financing Programs
www.ca-ilg.org/UtilityStateAgencyEnergyEfficiencyProgramsOverview
- Beacon Award Program
www.ca-ilg.org/BeaconAward

- Beacon Award Program Participant Accomplishments
www.ca-ilg.org/participant-accomplishments
- Statewide Energy Efficiency Collaborative
<http://californiaseec.org/>

This whitepaper is a service of the Institute for Local Government (ILG) whose mission is to promote good government at the local level with practical, impartial, and easy-to-use resources for California communities. ILG is the nonprofit 501(c)(3) research and education affiliate of the League of California Cities and the California State Association of Counties. For more information and to access the Institute's resources on sustainable communities, visit www.ca-ilg.org/SustainableCommunities. To access this resource directly, go to www.ca-ilg.org/SpotlightingEnergyEfficiency.

The Institute welcomes feedback on this resource:

- *Email:* yhunter@ca-ilg.org Subject: *Spotlighting Energy Efficiency in California Communities*
- *Fax:* 916.444.7535
- *Mail:* 1400 K Street, Suite 205 ▪ Sacramento, CA ▪ 95814