

Working With Energy Utilities to Finance Energy-Efficiency Improvements

Local agencies throughout California are striving to reduce costs, even as the demand for services grows. In this environment, improving efficiency helps agencies do more with their existing resources and can offer a high return on investment.

In tough economic times it can be difficult to finance projects — even those that promise cost savings. The good news is that there are resources, such as energy utility incentive programs, that can help. In some cases, local agencies can implement energy-efficiency upgrades and retrofits with reduced or no upfront costs. This article explores some key concepts to consider when evaluating options for energy-efficiency improvements, available resources to support agency efforts to improve energy efficiency, and examples of local energy-efficiency projects that use utility assistance programs.

Initial Key Concepts to Consider

When evaluating options for investing in energy efficiency, keeping the following key concepts in mind helps to ensure a more complete assessment of the various options' cost effectiveness. This may also help identify an option's indirect benefits, also known as "co-benefits."

- Think long term, and consider the costs and benefits that will accrue over the entire life cycle of a system or piece of equipment.
- Compare energy-efficiency investments to the costs of continuing "business as usual" without making changes.
- Include direct and indirect benefits (co-benefits) in cost-effectiveness analyses.
- Consider the public leadership aspects of thoughtful decisions to invest in energy efficiency that demonstrate a commitment to promoting sustainability, conserving resources and saving taxpayer dollars.

For more information about these and other key concepts, see *Financing Local Sustainability Efforts* (ILG whitepaper) at www.ca-ilg.org/ghgfinance.

Energy Utility Assistance Programs

When exploring opportunities for reducing energy use, begin by talking with the utilities that provide electricity and natural gas service. These include Pacific Gas & Electric, Southern California Edison, the Southern California Gas Company, San Diego Gas & Electric and also municipal utilities. Energy utilities offer a variety of programs that can help reduce the cost of energy-efficiency improvements. For links to information about

utility programs and other sustainability resources, including those referenced in this whitepaper, visit www.ca-ilg.org/ghgfinance.

Energy Audits and Technical Assistance. Energy utilities offer energy audits that help identify opportunities to reduce energy use. For smaller agencies, audits may consist of an online survey that asks questions about the type of facility and the activities that take place there. The survey offers recommendations for energy-efficiency improvements based on the information provided. For larger agencies, the utility may send a representative to conduct a more detailed on-site audit of the agency's facilities. A conversation with the utility can help guide an agency to the appropriate type of energy audit. In addition to energy audits, some utilities offer technical assistance to identify energy-efficiency retrofit strategies, including equipment and process recommendations.

Financial Incentives and Rebates. Energy utilities offer financing incentives through rebates and other mechanisms to promote energy-efficiency retrofits for agency facilities. The incentives generally cover energy-efficiency retrofits for lighting; heating, ventilation and air conditioning (HVAC) systems; water and wastewater pumps and motors; and refrigeration equipment.

On-Bill and Off-Bill Financing. Zero-interest financing for certain energy-efficiency retrofits is available through on-bill and off-bill financing. Generally, eligible projects must use a utility approved product or technology and be enrolled in a utility rebate or incentive program. The utility may wish to inspect the project before/after the upgrade or retrofit is installed. Agencies pay back the financed amount from the energy savings from the project. Payments are usually less than the estimated monthly dollar savings.

New Construction Programs. Energy utilities also offer programs to help finance energy-efficient equipment or systems in new construction. Check with the utility early in the design phase to identify options and requirements.

Think Outside the Building

Moving water takes energy. Conserving water and wastewater, as well as improving the efficiency of pumping systems, reduces the energy costs associated with water use. Energy utility rebate and incentive programs for water pumps and motors reduce the cost of water and wastewater efficiency improvements.

Shade trees are cool. Even a small reduction in a building's temperature can lower the cost of air conditioning in the summer. Some utilities offer tree planting assistance programs, and funding from local tree foundations may be available. The California Strategic Growth Council administers an Urban Greening Grant Program that provides financing for planning and implementation of urban greening projects, which may include shade trees as a component.

Other Financing Resources

The California Energy Commission offers a variety of grants, low-interest loans and technical assistance to promote energy efficiency. The availability of funds for these programs varies, so interested agencies should check the commission website periodically and sign up for its list-serve notification. Other organizations, including air districts and water agencies, may have resources to help city and county agencies improve energy efficiency. Additionally, Flex Your Power and the Database of State Incentives for Renewables & Efficiency (DSIRE) provide searchable databases of energy rebates, incentives and services offered by a variety of organizations.

Local Examples: Energy-Efficiency Retrofits

Sonoma County upgraded air conditioning and ventilation equipment with more efficient motors and fans at its Main Adult Detention Facility. The retrofits will reduce Sonoma County's annual electricity use by 263,946 kilowatt hours (kWh), and save the county an estimated \$75,333 annually. Pacific Gas & Electric provided a financial incentive of \$23,855 that helped reduce the cost.

The City of Palm Springs upgraded the lighting in its Police Department by replacing 120 T12 fluorescent lighting fixtures with more efficient T8 fixtures. The upgrades will reduce the city's annual electricity use by 131,192 kWh and save the city an estimated \$17,054 annually. Southern California Edison provided a financial incentive of \$18,878 to help reduce the cost.

The City of Huntington Beach identified energy-efficiency opportunities in its civic center. The city performed a top-to-bottom building tune-up to make sure the various systems were working well together and installed energy-management equipment to help control the heating and air conditioning system. As a result the city will save about 24,526 therms annually. Southern California Gas Company provided Huntington Beach with an energy-efficiency incentive of \$24,526 to help pay for the improvements. In addition, the city will continue to receive the benefit of about \$13,668 in annual savings, depending on the cost of natural gas.

The City of Chula Vista upgraded the heating, ventilating and air conditioning (HVAC) system for its Maxwell Road Public Works Facility, consisting of offices, a central garage and warehouse space. The upgrades will reduce the city's annual electricity use by 282,700 kWh and save the city an estimated \$32,110 annually. San Diego Gas & Electric provided a financial incentive of \$47,878 that helped reduce the cost of the upgrades.

In an interesting twist, the City of El Cerrito uses an innovative program to finance energy-efficiency upgrades and retrofits — it loans itself money. The city's Energy and Water Efficiency Program (EWEP) is a revolving loan fund established by the city to fund projects that improve the resource efficiency of city operations. El Cerrito uses a portion of the savings from those improvements to repay the loan fund and invest in additional water- and energy-efficiency projects. The city established the EWEP with funds from its capital improvement budget and a start-up grant from the Bay Area Air Quality Management District.

More Resources Available

A summary of sustainability financing options, including links to utility programs, is available at www.ca-ilg.org/ghgfinance.

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 sustainability, go to www.ca-ilg.org/sustainability.

The Institute welcomes feedback on this resource:

- *Email:* info@ca-ilg.org Subject: *Working with Utilities to Finance Energy-Efficiency Improvements*
- *Fax:* 916.444.7535
- *Mail:* 1400 K Street, Suite 205 ▪ Sacramento, CA ▪ 95814