

## Financing Energy Efficiency: Options and Issues to Consider

Like any investment, efforts to finance energy-efficiency projects benefit from thinking ahead about the pros and cons of different options. For example, what is the best way to pay for the project — through the agency's General Fund or by working with an energy services company? What are the payback period and return on investment for the different financing approaches? Are financial incentives available that reduce the project's cost? Is it worth spending more up front for greater energy efficiency to save *more* money over the long term?

The financing options discussed here reflect a starting point for considering individual projects. Involving the agency's financial, legal and public works staff is always a best practice.

Energy-efficiency retrofits cover a wide range of projects, from upgrading water pumps and motors to heating and air conditioning systems to interior and exterior lighting to refrigeration. Identifying the estimated energy and dollar savings per year and over the lifetime of the project, the cost of the project, possible rebates or other financial incentives, and the payback period can help decide which approach is appropriate for the agency. Factoring in avoided maintenance costs is critical too. For example, installing high-efficiency light-emitting diode (LED) lamps and fixtures can reduce maintenance costs and produce energy savings because LEDs last longer, require less frequent maintenance and use less energy than other types of lighting.

Consider these options and issues related to financing energy efficiency.

**General Fund.** Using the agency's General Fund can be the simplest way to pay for energy-efficiency retrofits if the funds are available. The financial benefits accrue more quickly and go directly to the agency.

**Bonds.** Some agencies use general obligation bonds to finance major energy-efficiency improvements. Because the bonds are repaid from project energy savings, consider requiring performance guarantees as part of the installation contract.

**Energy Service Companies.** Energy service companies (ESCOs) are private companies that provide assessment and installation of energy-efficiency retrofits. The customer pays for the project with the expected savings from reduced energy usage. Typically, when the project cost has been repaid the agency owns the equipment. Important things to consider when evaluating an ESCO approach include whether the equipment's lifetime will exceed the payback period, who maintains the equipment during the ESCO contract, and

a performance guarantee to protect the agency if the equipment does not perform as promised.

**Utility Financing and Incentives.** California's investor-owned utilities (IOUs) offer public agencies a variety of different financing incentives to help reduce the cost of energy-efficiency retrofits. These include rebates for energy retrofits of lighting, refrigeration, pumps, motors, and heating, ventilation and air-conditioning (HVAC) systems. The rebates help lower the initial cost and shorten the payback period.

The IOU energy-efficiency retrofit loan program known as On-Bill Financing (OBF) offers zero-interest loans. Eligible projects must use utility-approved products or technology and be enrolled in a utility rebate or incentive program. The utility may wish to inspect the project before and after the upgrade or retrofit is installed. Agencies pay back the financed amount with the energy savings that result from the project, which are reflected on their monthly utility bill. Payments are usually less than the estimated monthly dollar savings. Information about OBF is available from each utility.

While not strictly an energy-efficiency financing option, the utilities also offer voluntary programs that pay customers to reduce or curtail energy use during peak demand periods. Some utilities also offer free retro-commissioning on larger buildings. Retro-commissioning evaluates existing equipment to make sure it performs as originally designed and thus works efficiently with newer equipment.

**Revolving Loan Funds.** Revolving loan funds, where the net savings from a project are used to fund future projects, provide an ongoing funding stream for subsequent energy-efficiency retrofit projects. Some agencies direct 100 percent of net savings to the revolving fund, while others split the net savings between the revolving fund and other uses, such as the agency's General Fund.

**State and Federal Sources.** The State of California and the federal government frequently offer grants and free- or low-interest loans to finance energy-efficiency projects. The online search tool, CoolCalifornia Funding Wizard ([www.coolcalifornia.org/funding-wizard-home](http://www.coolcalifornia.org/funding-wizard-home)), helps identify grants, rebates, tax credits and other financial assistance from state, federal, utility and other sources.

**Other Approaches.** Local officials may want to examine other approaches to financing energy efficiency. For example, one city department provides energy assessment and financing services for other departments, charging a 3 percent surcharge per project. After the cost of the retrofit and surcharge is repaid from the energy savings, the host department receives 100 percent of future savings. Bond pooling programs, such as the one offered by the California Statewide Communities Development Authority, provide another way to finance energy efficiency.

### Key Tips

When evaluating energy efficiency options for a project, consider maintenance costs and lost opportunities to spend the energy-efficiency money on a different project. Be sure to compare the financial benefits of the different options being considered.

Consult with your energy utility about financial incentives or rebates that can help lower the project's cost. Consult early to make certain the project meets the eligibility criteria.

## Conclusion

In today's difficult economic times, spending taxpayers' money wisely is critically important. Investing in energy efficiency to save money and resources offers local officials opportunities to do just that.

## Resources to Learn More

(If using a printed copy of this whitepaper, please go to [www.ca-ilg.org/FinancingEnergyEfficiencyOptions](http://www.ca-ilg.org/FinancingEnergyEfficiencyOptions) to access the links below.)

- **[Financing Sustainability Resource Center – Institute for Local Government](#)**

Provides links to a variety of funding resources for energy efficiency and other sustainability projects.

- **Utility Energy Efficiency Incentive Programs**

Investor-owned and municipal utilities offer various financing and incentive programs to support energy efficiency retrofit projects. For investor-owned utility On Bill Financing programs, local agencies may contact the individual utilities for details.

- [Pacific Gas and Electric Company](#)
- [San Diego Gas & Electric Company](#)
- [Southern California Edison](#)
- [Southern California Gas Company](#)
- [Municipal Utilities](#) (California Municipal Utility Association)

- **[Sustainable Energy Bond Program](#)**

Offered by California Communities (California Statewide Communities Development Authority) and the Foundation for Renewable Energy and Environment, this bond financing program enables local agencies to finance sustainable energy related infrastructure at tax exempt rates.

- **[CoolCalifornia Funding Wizard](#)**

A searchable, web-based tool to identify grants, loans and other financing resources available from state, federal, utility and other sources.

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The Institute welcomes feedback on this resource:

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