Pasadena Water and Power

CLEAN ENERGY FINANCE GUIDE

February 2014

Acknowledgments

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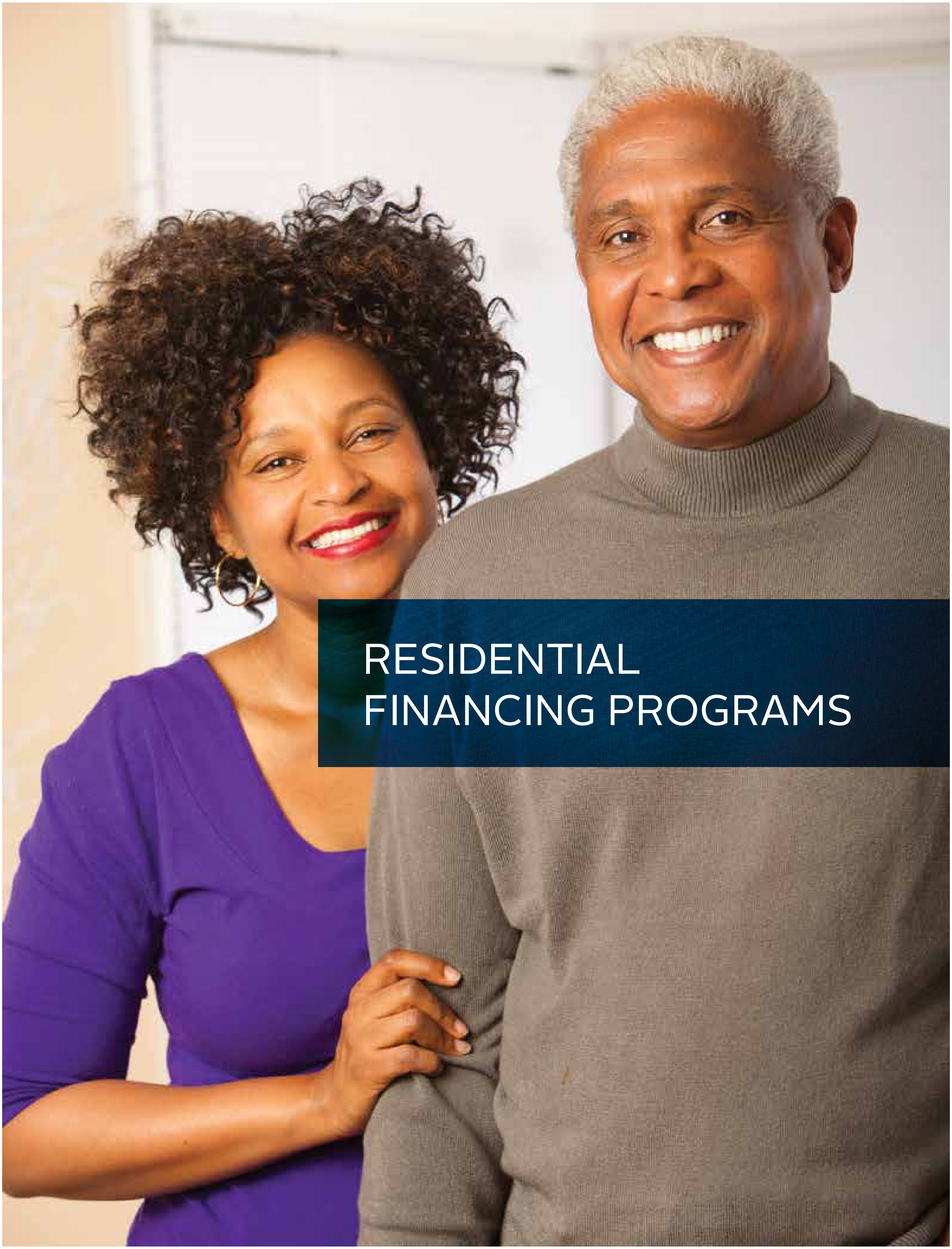
Contents

Introduction

This Finance Guidebook is a quick reference resource to assist Pasadena Water & Power customers in navigating the financing options available to support energy efficiency and renewable energy projects in 2014. It is geared toward residential, commercial and municipal building owners and contractors.

A general description and contact information is provided for each financing product or program, along with financing terms and eligible measures. Customers should contact the financing provider for complete and up-to-date information and participation details.

RESIDENTIAL FINANCING PROGRAMS



FHA 203(k) Rehab Loan

Program Description

The Federal Housing Administration (FHA), part of the Department of Housing and Urban Development (HUD), administers various single-family mortgage insurance programs. These programs operate through FHA-approved lending institutions. Approved lenders submit applications on behalf of applicants to have their property appraised and credit approved. Lenders fund mortgage loans insured by HUD providing property owners a line of credit to make property upgrades that include energy improvements. The FHA 203(k) Rehab Loan is designed to be used in the purchase of a home that is need of repair. Instead of the homebuyer obtaining financing to purchase the dwelling, and then an additional construction loan to complete the rehabilitation work, a 203(k) loan combines these steps by granting a loan that covers the cost of acquisition and rehabilitation for the total projected value after improvements have been made.

Other

New construction must meet minimum HUD standards; existing structures require efficiency measures such as insulation and caulking.

Contact Information

Reference Website: http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/203k/203kabou

Email: answers@hud.gov

Phone Number: (800) 225-5342

Financing Information

Rate: Varies based on 30-year fixed mortgage rate

Minimum Amount: N/A

Maximum Amount: Up to 100% of cost of eligible measures

Term (years): 30

Project Information

Eligible Measures: Energy efficiency, solar PV, other

Required Audit: Yes, uniform residential appraisal report and HUD inspection

Contractors: Any licensed contractor

Region

All

Type of Financing

Secured

FHA Energy Efficiency Mortgage (EEM)

Contact Information

Reference Website: http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/eem/energy-r

Email: answers@hud.gov

Phone Number: (800) 225-5342

Financing Information

Rate: Varies based on 30-year fixed mortgage rate

Minimum Amount: N/A

Maximum Amount: Dollar amount of cost-effective energy improvements, plus cost of report and inspections

Term (years): 30

Project Information

Eligible Measures: Energy efficiency, solar PV

Required Audit: Yes, Home Energy Rating System (HERS) report

Contractors: Any licensed contractor

Region

All

Type of Financing

Secured

Program Description

The FHA's Energy Efficient Mortgage (EEM) program helps homebuyers and existing homeowners save money on utility bills by enabling them to finance the cost of adding energy efficiency features to new or existing housing as part of their FHA insured home purchase or refinancing mortgage. An EEM can be used to make these improvements in one- to four-unit existing homes and new construction. The maximum dollar amount depends on the lesser of two determinants. First, the maximum loan amount is determined by the total cost of the measures to be installed, plus any reports and inspections. Second, the maximum loan can be reduced to the lesser of 5% of 1) the value of the property, 2) 115% of the median area price of a home or 3) 150% of the conforming Freddie Mac limit.

Other

EEMs can be used with the FHA Section 203(k) rehabilitation program and generally follows that program's financing guidelines.

Home Equity Loan

Program Description

A Home Equity Loan (HEL) is a loan made to a borrower where the home's equity is the collateral. HELs can be used to finance major expenses that would include energy improvements among other things. The loan is typically made as a one-time, lump sum at a fixed interest rate for qualified borrowers. Because the loan uses the home's equity as collateral, a lien is typically placed on the property that is secondary to the first deed of trust, making it what some refer to as a second mortgage.

Contact Information

Reference Website: http://files.consumerfinance.gov/f/201204_CFPB_HELOC-brochure.pdf

Email: Contact an individual lending institution for details

Phone Number: Contact an individual lending institution for details

Financing Information

Rate: Varies based on 30-year fixed mortgage rate

Minimum Amount: N/A

Maximum Amount: Up to 100% of cost of eligible measures

Term (years): 30

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: No

Contractors: Any licensed contractor

Region

All

Type of Financing

Secured

Home Equity Line of Credit

Program Description

A Home Equity Line of Credit (HELOC) is a type of Home Equity Loan, but instead of a lump sum, it extends a line of credit to a borrower while still using the home's equity as collateral. Once a maximum loan balance is established, the homeowner may draw on the line of credit at his or her discretion. Interest is charged on a predetermined variable rate, which is usually based on prevailing prime rates. Because HELOC interest rates are variable, homeowners should be aware of prevailing interest rates because a spike could cause repayment balances to rise rapidly. Once there is a balance owing on the loan, the homeowner can choose the repayment schedule as long as minimum interest payments are made monthly. The term of a HELOC can last anywhere from one to 20 years, at the end of which all balances must be paid in full. These types of loans are typically available through banks and credit unions.

Contact Information

Reference Website: www.federalreserve.gov/pubs/equity/equity_english.htm

Email: Contact an individual lending institution for details

Phone Number: Contact an individual lending institution for details

Financing Information

Financing amounts, rates, terms and underwriting criteria are determined by the individual financing institution

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: No

Contractors: Any licensed contractor

Region

All

Type of Financing

Secured

HUD Title 1 Power Saver Loans

Program Description

The PowerSaver Loan Program, administered by SunWest and EGIA, is available to residential property owners. This program offers eligible homeowners competitive interest rate loans backed by HUD/ FHA for up to 15 years for energy efficiency and up to 20 years for renewable energy. The PowerSaver Loan Program allows a variety of residential property types to participate including single-family detached homes and HUD-approved condominiums.

Contact Information

Reference Website: http://portal.hud.gov/hudportal/documents/huddoc?id=FHAPowerSaverFactSheet.pdf

Email: N/A

Phone Number: (866) 740-3677

Financing Information

Rate: 7.707%, 7.893%

Minimum Amount: N/A

Maximum Amount: $25,000

Term (years): Up to 20 years

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: Yes, must be completed by SunWest

Contractors: GeoSmart authorized contractors only

Region

All

Type of Financing

Secured

ABX 114 (CAEATFA) Loan Loss Reserve

Contact Information

Reference Website: www.treasurer.ca.gov/caeatfa/index.asp

Email: malvarez@treasurer.ca.gov

Phone Number: (916) 651-5105

Financing Information

Financing amounts, rates, terms and underwriting criteria are determined by the individual financing institution

Project Information

Eligible Measures: Energy efficiency, solar PV, other

Required Audit: Yes, pre- and post-project assessments required

Contractors: Varies depending on project scope

Region

California

Type of Financing

Secured or unsecured

Program Description

ABX114 authorizes the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) to administer a Clean Energy Upgrade Financing Program using up to $25 million to finance installation of distributed generation renewable energy sources, electric vehicle charging infrastructure and energy or water efficiency improvements on homes or small commercial properties. Under this loan loss reserve program, CAEATFA provides financial assistance in the form of a loan loss reserve to financial institutions. By participating in the program, financial institutions will receive an initial 15% reserve contribution for each qualified loan enrolled in the program. CAEATFA may provide up to 100% coverage on qualified loan defaults. Participating financial institutions include Matadors Community Credit Union, SAFE Credit Union, SMUD and the Bank of Stockton. Matadors Community is able to service customers in the entire state. The others are location specific.

Other

All projects must demonstrate a 10% reduction in total property energy use through energy efficiency in order to qualify for financing solar improvements.

The Energy Network Home Energy Loan

Program Description

The Energy Network offers Home Energy Loans with preferred interest rates through Matadors Community Credit Union. The program offers property owners utility incentives and preferred financing options on eligible residential energy efficiency and solar projects. Energy efficiency projects must complete the Energy Upgrade California utility incentive program and solar projects must be completed in conjunction with or following a qualifying energy efficiency project.

Other

Property must be serviced by Southern California Gas Company and must participate in Energy Upgrade California™ Home Upgrade. Energy efficiency projects must be completed in conjunction with or before solar.

Contact Information

Reference Website: http://action.theenergynetwork.com/about-us/residents/financing/home-energy-loans

Email: lahelpdesk@energyupgradeca.org

Phone Number: (877) 785-2237

Financing Information

Rate: 4.99%, 5.99%, 6.99%

Minimum Amount: $2,500

Maximum Amount: $50,000

Term (years): 5, 10, 15

Project Information

Eligible Measures: Energy efficiency, solar PV

Required Audit: As required by applicable incentive program(s)

Contractors: Any participating contractor of Energy Upgrade California™ Home Upgrade and/or the California Solar Initiative (CSI)

Region

Southern California Gas Company territory (excluding Santa Barbara, San Luis Obispo and Ventura counties)

Type of Financing

Unsecured

AFC First Energy Loan

Contact Information

Reference Website: www.energyloan.net

Email: N/A

Phone Number: (888) 232-3477

Financing Information

Rate: Fixed rate, contact program for details

Minimum Amount: $1,000

Maximum Amount: $25,000

Term (years): Up to 10 years

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: No

Contractors: AFC First Energy Loan approved contractors

Region

All

Type of Financing

Unsecured

Program Description

Fannie Mae offers a direct, nonrecourse consumer loan program that will finance up to $25,000 in energy improvements without putting a lien on your home. It is a simple interest, fixed-rate loan with longer terms available then typical bank financing.

Other

All work can be financed on solar, renewables, energy and water efficiency, as long as 50% of the work includes eligible energy efficiency or renewable measures.

Cool Comfort Financing

Program Description

The Cool Comfort Financing program offers low-interest loans for qualifying borrowers to assist with financing heating and cooling projects. Eligible improvements include replacement of central air conditioning or furnace heating unit, installation of a heat pump and testing/treatment of ducts. Property owners serviced by Southern California Gas are eligible.

Other

Work must be performed by a Cool Comfort Participating Contractor.

Contact Information

Reference Website: http://www.energycenter.org/coolcomfort

Email: lahelpdesk@energyupgradeca.org

Phone Number: (877) 785-2237

Financing Information

Rate: 2%–4.99%, 3%–5.99%

Minimum Amount: $2,500

Maximum Amount: $50,000

Term (years): 5 or 10

Project Information

Eligible Measures: Energy efficiency, specifically HVAC and its related systems

Required Audit: No

Contractors: Cool Comfort Financing approved contractors

Region

Southern California Gas service territory

Type of Financing

Unsecured

Green Sky Financing

Contact Information

Reference Website:
http://www.greenskycredit.com

Email: service@greenskycredit.com, dealers@greenskycredit.com

Phone Number:
(866) 936-0602

Financing Information

Rate: 3.99%

Minimum Amount: N/A

Maximum Amount: $40,000

Term (years): TBD by dealer

Project Information

Eligible Measures: Energy efficiency, solar PV, other

Required Audit: No

Contractors: Must be a registered Green Sky Dealer

Region

All

Type of Financing

Unsecured

Program Description

Green Sky Credit offers low-cost financing for borrowers in a manner that is simple to use for both contractors and customers. Credit limits of up to $40,000 are available for all types of energy-related improvements.

Other

Financing is not associated with any particular energy program, and therefore can be accessed by anyone who qualifies.

Jewish Free Loan Association

Program Description

The Jewish Free Loan Association's Green Loan Program provides loans of up to $5,000 per customer, but customers may apply for multiple loan installments. The loans are interest free with no fees, but require an in-person interview, as well as a cosigner to be present at the time of signing.

Contact Information

Reference Website: http://www.jfla.org/

Email: info@jfla.org

Phone Number: (323) 761-8830

Financing Information

Rate: None

Minimum Amount: N/A

Maximum Amount: $5,000

Term (years): TBD

Project Information

Eligible Measures: Energy efficiency, other

Required Audit: Yes, provided free of charge by L.A. Trade Tech

Contractors: Must be a licensed contractor

Region

Los Angeles County

Type of Financing

Unsecured

Under One Roof

Contact Information

Reference Website: http://pwpweb.com/underoneroof/

Email: jibarra@lanhs.org

Phone Number: (213) 381-2862 ext. 254

Financing Information

Rate: Rates vary

Minimum Amount: N/A

Maximum Amount: $85,000

Term (years): Up to 30 years deferred

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: No

Contractors: Any licensed contractor; local is preferred; must submit application with NHS

Region

Los Angeles County

Type of Financing

Secured

Program Description

The Under One Roof program is a collaborative that leverages financing available through Los Angeles County's Neighborhood Housing Services (NHS). NHS offers a variety of residential rehab loans, both deferred and nondeferred for income-qualified households for up to 30 years.

Other

All energy-related upgrades must be combined with other physical renovations to the property.

COMMERCIAL FINANCING PROGRAMS

Utility On-Bill Financing

Contact Information

Reference Website: www.theenergynetwork.com

Email: scgobf@semprautilities.com

Phone Number: (800) 644-6133

Financing Information

Rate: None

Minimum Amount: $5,000

Maximum Amount: $100,000

Term (years): 5

Project Information

Eligible Measures: Energy efficiency

Required Audit: No

Contractors: Any licensed contractor

Region

Southern California Gas Service Territory

Type of Financing

Unsecured

Program Description

On-Bill Financing is provided and operated by Southern California Gas (SoCalGas) and allows eligible customers to make payments as part of a line item on their utility bill. This program offers a zero-interest loan for the installation of qualified energy-efficient equipment. Those who take advantage of this program will also receive financial incentives for installing qualifying energy-efficient equipment, lower monthly electricity costs and long-term energy savings.

Other

All financed measures must qualify for one or more of the following utility incentive/rebate programs: Energy Efficiency Business Rebate, Energy Efficiency Business Incentive, third-party or partnership programs. Single end-use lighting measures are limited to 20% of a project's cost.

Los Angeles County PACE

Program Description

The Los Angeles County Property Assessed Clean Energy (PACE) program offers financing to Los Angeles County commercial, industrial and multifamily property owners to fund improvements that are proven to conserve water, save energy and/or create renewable energy on-site. Each PACE project is funded through the private placement of a bond, with terms and rates negotiated between the property owner and investor. Unlike a traditional loan, financing is paid back twice a year through a property tax assessment, with longer financing terms than traditionally available. Los Angeles County's Commercial PACE Program is an open market program allowing property owners to choose their own contractors and project investors.

Other

Project must be permanently located on-site.

Contact Information

Reference Website: www.lapace.org

Email: info@lapace.org

Phone Number: (877) 785-2237

Financing Information

Financing amounts, rates and terms are determined by the individual lending institution

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: Yes, ASHRAE Level 2 or equivalent

Contractors: Any licensed contractor

Region

Los Angeles County

Type of Financing

PACE

MUNICIPAL FINANCING PROGRAMS

Utility On-Bill Financing

Program Description

On-Bill Financing is provided and operated by Southern California Gas (SoCalGas) and allows eligible customers to make payments as part of a line item on their utility bill. This program offers a zero-interest loan for the installation of qualified energy-efficient equipment. Those who take advantage of this program will also receive financial incentives for installing qualifying energy-efficient equipment, lower monthly electricity costs and long-term energy savings.

Other

All financed measures must qualify for one or more of the following utility incentive/rebate programs: Energy Efficiency Business Rebate, Energy Efficiency Business Incentive, third-party or partnership programs. Single end-use lighting measures are limited to 20% of a project's cost.

Contact Information

Reference Website: www.theenergynetwork.com

Email: scgobf@semprautilities.com

Phone Number: (800) 644-6133

Financing Information

Rate: None

Minimum Amount: $5,000

Maximum Amount: $100,000

Term (years): 5

Project Information

Eligible Measures: Energy efficiency

Required Audit: No

Contractors: Any licensed contractor

Region

Southern California Gas Service Territory

Type of Financing

Unsecured

CA Lease

Contact Information

Reference Website: www.cacommunities.org/public-agency-programs/calease

Email: scarper@cacommunities.org

Phone Number: (925) 765 8525

Financing Information

Rate: Varies based on lender

Minimum Amount: $500,000

Maximum Amount: TBD by vendor

Term (years): TBD by vendor

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: No

Contractors: Any licensed contractor

Region

California

Type of Financing

Lease to own

Program Description

The California Communities® Lease Finance Program (CaLease) allows local agencies to finance equipment and real estate. The program has been established using a master lease agreement with each respective local agency to provide for efficient subsequent purchases in the future. CaLease provides local agencies with access to multiple funding institutions who competitively bid on their project. This comprehensive lease management program allows local government the ability to bid and manage leases without dedicating significant staff time to the process.

To maximize efficiencies and control costs, California Communities has designated a team of financial and legal experts to partner with on the program. This design reduces issuance cost via negotiated fees based on program volume while maintaining consistency in the program documents (essentially lease to own).

Other

Any equipment may be financed.

Sustainable Energy Bond Program

Program Description

Under the Sustainable Energy Bond Program, participating entities and organizations will contract with an energy service company to complete energy and water conservation measures. Improvements could include street lighting, building lighting, pumps, HVAC, system controls, boilers, chillers, ducting, windows, partial roofing, toilets and others.

Contact Information

Reference Website: http://www.cacommunities.org/energy-finance-programs/

Email: jpenkower@cacommunities.org

Phone Number: Jon Penkower, (925) 274-4601

Financing Information

Financing amounts, rates and terms are determined by the individual ESCO

Project Information

Eligible Measures: Energy efficiency, water efficiency

Required Audit: No

Contractors: Any licensed contractor

Region

California member cities and counties of CSCDA Joint Power Authority

Type of Financing

Tax-exempt bonds

Energy Project Lease

Contact Information

Reference Website: www.theenergynetwork.com

Email: lahelpdesk@energyupgradeca.org

Phone Number: (855) 700-NETWORK

Financing Information

Rate: 3.5 to 5.5%

Minimum Amount: N/A

Maximum Amount: No maximum

Term (years): Up to 15 years

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: No

Contractors: Any licensed contractor

Region

California

Type of Financing

Self-funded (cash)

Program Description

Energy Project Lease Financing is a program authorized by the California Public Utilities Commission and designed for public agencies. It addresses challenges public agencies face when trying to finance energy efficiency, water saving and renewable energy projects. Agencies can take advantage of low-interest rates and use a simple process tailored to individual needs. Funding for Energy Project Lease Financing is provided through private lenders and may be used in conjunction with other utility or public financing, rebates and incentives.

Other

Local agency determines all eligibility criteria. Statewide for public agencies.

California Energy Commission Energy Efficiency Financing Program

Program Description

The Energy Commission offers cities, counties, colleges/universities and K–12 schools the Energy Efficiency Financing Program with 1% loans of up to $3 million. The low-interest loan can fund feasibility studies and the installation of energy-saving measures. Although funding for installation of energy projects is currently oversubscribed, the Energy Commission is still accepting loan applications for future projects on a waitlist basis.

Other

The repayment schedule is based on the estimated annual energy cost savings from the aggregated project(s), using energy costs and operating schedules at the time of loan approval. Loans will be amortized on the estimated annual energy cost savings achieved by the loan-funded project. Applicants will be billed twice a year, in June and December, after the projects are completed.

Contact Information

Reference Website: http://www.energy.ca.gov/efficiency/financing/#eligibility

Email: pubprog@energy.ca.gov

Phone Number: (916) 654-4104

Financing Information

Rate: 1%

Minimum Amount: $0

Maximum Amount: $3,000,000

Term (years): Cannot exceed useful life; maximum 15 years

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: Yes

Contractors: Any licensed contractor

Region

California

Type of Financing

Secured via promissory note/loan agreement

Revolving Loan Fund

Contact Information

Reference Website: www.theenergynetwork.com

Email: info@theenergynetwork.com

Phone Number: (855) 700-NETWORK

Financing Information

Financing amounts, rates, terms and underwriting criteria are determined by the individual municipality

Project Information

Eligible Measures: Energy efficiency

Required Audit: TBD by municipality

Contractors: TBD by municipality

Region

Los Angeles County

Type of Financing

Revolving credit

Program Description

Some organizations that have internal resources to fund energy projects establish an energy revolving fund. This fund is an internal pool of money designed to fund energy projects and to then reinvest all or a portion of cost savings back into the fund for future energy projects. In some cases, cost savings are allocated toward the salary of a dedicated energy manager.

Revolving funds are difficult to establish for many reasons. The most significant barrier is gaining management commitment to allocate energy cost savings that are generated in the operating budget into energy projects that are generally funded through the capital budget. Another funding method is to charge a percentage to each department in order to fund the initial loan fund. This can be done in such a way that the department's overall expenditure remains the same and the energy savings fund the revolving loan fund. Also, revolving loan funds can be funded initially through the proceeds from incentives, grants and rebates.

Several local governments have put energy revolving funds such programs in place. The City of Huntington Beach established a trust fund from documented energy savings from past energy projects that pays its energy manager's salary. Similar revolving funds have also been established by Alameda County and the cities of San Jose and El Cerrito.

MUNICIPAL & COMMERCIAL FINANCING PROGRAMS

Contact Information

Reference Website: www.theenergynetwork.com

Email: lahelpdesk@energyupgradeca.org

Phone Number: (855) 700-NETWORK

Financing Information

Financing amounts, rates, terms and underwriting criteria are determined by the individual municipality

Project Information

Eligible Measures: Energy efficiency, water efficiency, solar PV, other

Required Audit: Yes

Contractors: Any licensed contractor

Region

All

Type of Financing

Third-party ownership

Energy Service Company Contracts

Program Description

An energy service company (ESCO) is a business that develops, installs and finances projects designed to improve the energy and water usage of buildings. The ESCO remains a partner for the life of the project, acting as the general contractor responsible for all aspects of the project, including procurement of equipment and services. ESCOs also assume associated technical and performance risks. The ESCO typically conducts an investment-grade energy audit, designs the project, obtains bids from subcontractors, manages the construction, guarantees energy savings, obtains financing and often maintains the equipment. The ESCO bills the property owner for a share of the energy cost savings such that the savings pay for the project and all of the ESCO's services. There must be a large savings potential before an ESCO will make a commitment to an energy efficiency project, so performance contracts are generally used for projects that are in excess of $1 million. Some ESCOs will pursue smaller projects; however, they are likely to expect a larger share of the energy savings.

There are significant advantages to performance contracting. Because the ESCO takes responsibility for funding, there are no

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Energy Service Company Contracts *(continued from previous page)*

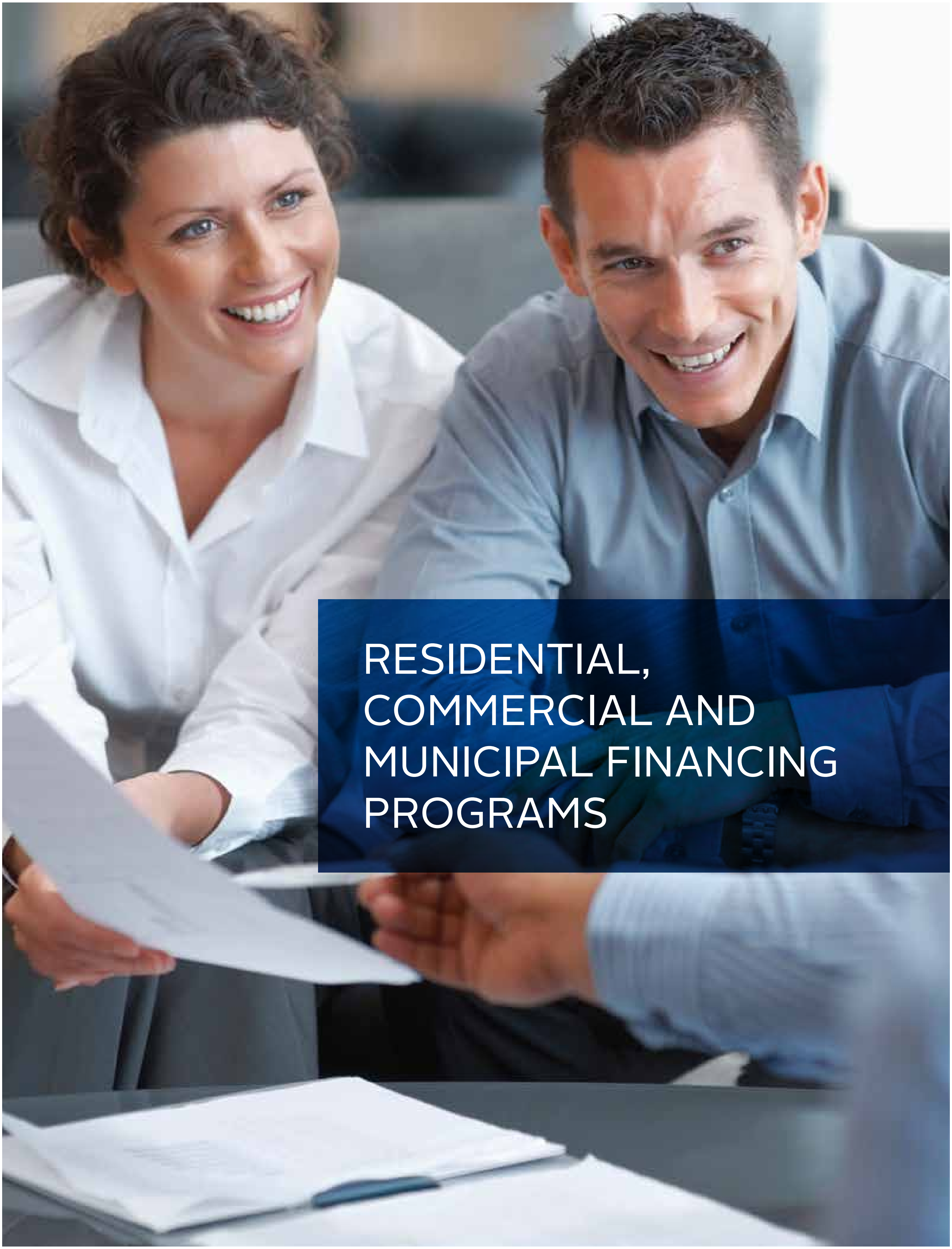
up-front costs and no debt is added to the balance sheet. ESCOs have great depth of expertise and experience that enables them to design and implement high-quality projects relatively quickly and guarantee savings from the projects. This minimizes the burden on the contracting organization.

Conversely, there are also several disadvantages to performance contracting. First, costs are much higher resulting in a significant portion of the savings generated by the efficiency project being retained by the ESCO rather than benefiting the local government. ESCO contracts can also be very relatively complex, including assumptions for future utility rate increases and avoided maintenance costs that may be difficult to estimate or predict. Performance contracts usually specify detailed work for multiple facilities, involve large sums of capital, cover a wide range of contingencies and require expertise in law, engineering and finance to negotiate.

How the cost savings are distributed is an important part of negotiating a performance contract. The savings always goes first to service the debt incurred by the ESCO for financing the project. It is important to recognize that as private taxable companies, the ESCO's cost of capital is typically higher than that of the agency's tax-exempt rates. After debt service, additional savings are distributed according to contract provisions. Three common methods for distribution of savings in performance contracting include:

1. Guaranteed savings ensures the contracting organization receives a guaranteed amount and the ESCO receives the remainder.
2. Shared savings provides that the contracting organization and the ESCO split the savings according to a percentage, such as 60/40.
3. Paid-from savings ensures that the ESCO receives a guaranteed amount and the local government agency gets the rest.

In shared-savings contracts, it is very important to determine accurately the expected energy savings. This requires detailed and robust measurement and verification (M&V). M&V determines the amount of money paid to the ESCO over the term of the contract and the amount of savings realized by the agency. It is a good practice to retain a third-party engineering firm to verify energy savings assumptions, calculations and M&V protocols. Shared-savings performance contracts include a detailed description of M&V calculation methods, and it is important to ensure these provisions are well understood and agreed upon.



RESIDENTIAL, COMMERCIAL AND MUNICIPAL FINANCING PROGRAMS

Solar Lease

Program Description

Solar Leases are a third-party financing instrument where an entity or an individual other than the solar customer pays for and owns the system. The third-party owner then charges the solar customer a fixed fee that is not tied to actual use, but is intended to be lower than their existing power bill. Because the solar customer does not own the system, they are not responsible for system performance, operations and maintenance. Leasing companies have created three different types of leases: a zero-down lease, a lease with money down and a prepaid lease in which a large sum is required up front with no subsequent lease payments for the term of the lease.

A zero-down lease is a good fit for property owners who do not have the up-front capital needed to purchase the solar system outright, who do not qualify for a low-interest loan because there's not enough equity in their property or who are pursuing solar for reasons rather than long-term financial savings. When signing a zero-down solar lease, the property owner should be aware of the annual increase or payment increase. Simply put, the monthly lease payment increases this percentage annually

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Contact Information

Reference Website: http://www.seia.org/policy/finance-tax/third-party-financing

Email: Varies by lease provider

Phone Number: Varies by lease provider

Financing Information

Financing amounts, rates, terms and underwriting criteria are determined by the individual municipality

Project Information

Eligible Measures: Solar PV, other

Required Audit: No

Contractors: Any licensed contractor

Region

All

Type of Financing

Third-party ownership

Solar Lease *(continued from previous page)*

for the duration of the contract. On average, the annual increase will range from 2–4%. A yearly payment increase can have a significant impact on the actual savings of a solar lease. For example, if the contract terms state a 3% per year increase in the lease payments, and the utility company also increases their rate 3% per year, then the property owner comes out about even. However, if it turns out that the lease's annual increase eventually ends up being higher than the yearly increase in the utility rate then, financially, the property owner loses. The financial disadvantage of the zero-down lease is similar to any lease: just like leasing a car, in the end, the property owner will pay significantly more for leasing the PV system than if they were to purchase the system up front, and they will not own the system when the lease is up.

A lease with money down is essentially the same as a zero-down lease, except the leasing company usually exempts the lessee from any annual lease increase and the monthly lease payments are lower. This option makes sense for property owners who are not comfortable with their lease payments increasing every year and for those who have a small amount of capital to put toward the cost of the system.

The prepaid leasing option is as close as one can get to actually owning a system, while still leasing. However, this requires a larger up-front expenditure than the money-down lease, but it is still less than purchasing the system up front. The upside to this option is that the lessee will not have any additional lease payments under this arrangement. Nonetheless, like the other leases, there can be a problem in transferring the lease if the lessee decides to sell the property and the new owner does not want or is unable to take on a lease. The lessee could lose their up-front investment and incur other financial penalties for terminating the lease too early. Both the money-down and the prepaid lease can offer a high rate of return, often over 10%. However, actual system ownership provides greater overall savings.

Solar Power Purchase Agreements (PPA)

Program Description

Power Purchase Agreements (PPAs) are another third-party financing instrument that allow a solar customer to purchase the production of a solar system for an agreed upon rate and term. In most cases, the rate starts at a level that is lower than the utility's electricity rate and is locked in for a term of 20–25 years. Through this model, solar customers avoid the high up-front cost of the solar installation while still being able to take advantage of the benefits of clean energy and lower energy costs.

One potential risk with PPAs lies in the embedded assumptions of the agreement. Generally, the price paid is tied to present and future electricity prices that are assumed to escalate at a fixed rate. Historically, electricity rates have increased by an average of between 2–4% per year. Some PPAs assume that future rate increases will be as much as 6% per year. If this assumed rate increase exceeds actual future rate increases, the costs of the PPA may exceed actual electricity costs in future years. PPAs should contain a provision that the electricity rate paid for the PPA should never exceed the blended rate of the utility for the preceding year. Although uncommon, another PPA risk is that

(continued on next page)

Contact Information

Reference Website: http://www.seia.org/policy/finance-tax/third-party-financing

Email: Varies by PPA provider

Phone Number: Varies by PPA provider

Financing Information

Financing amounts, rates, terms and underwriting criteria are determined by the individual municipality

Project Information

Eligible Measures: Solar PV, other

Required Audit: No

Contractors: Any licensed contractor

Region

All

Type of Financing

Third-party ownership

the system is oversized and the agency is responsible for purchasing production that exceeds their consumption. With appropriate oversight of contract terms and project scoping, PPAs are often a very reasonable and attractive financing solution for solar projects.

Other

The PPA developer determines all property and owner eligibility criteria.

Pasadena Water and Power • 150 S. Los Robles Avenue, Suite 200 • Pasadena, CA 91101