

Center for
Sustainable Energy[®]
CALIFORNIA



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U.S. Department of Energy

SOUTHERN CALIFORNIA Solar Finance Guide

FEBRUARY 2013

INTRODUCTION

BACKGROUND

In 2012, the California Center for Sustainable Energy (CCSE) was awarded grant funds from the Department of Energy's (DOE's) SunShot Initiative Rooftop Solar Challenge. The DOE SunShot Initiative is a collaborative national initiative to make solar energy costs competitive with other forms of energy by the end of the decade. Reducing the installed cost of solar energy systems by about 75% will drive widespread, large-scale adoption of this renewable energy technology and restore U.S. leadership in the global clean energy race.

The Rooftop Solar Challenge supports regional teams, of which CCSE and its sub-grantees comprise the Southern California team, to spur solar power deployment by cutting the soft costs of solar — streamlining and standardizing permitting, zoning, and interconnection processes — and improving finance options to reduce barriers and lower costs for residential, commercial and municipal rooftop solar systems. The Rooftop Solar Challenge is part of the Department of Energy's larger effort to make solar energy more accessible and affordable, increase domestic solar deployment, and position the U.S. as a leader in the rapidly growing global solar market.

As part of the SunShot Initiative's Rooftop Solar Challenge, the CCSE regional team developed model rules for permitting and interconnection processes that can bring a streamlined approach to 21% of California's population. This project will also create custom implementation plans, jurisdictional

REGIONAL SUNSHOT TEAM LOCATION

Sun Shot Participants	County			
	San Diego	Orange	Los Angeles	Riverside
San Diego	X			
Chula Vista	X			
Anaheim		X		
Santa Ana		X		
Long Beach			X	
Palmdale			X	
Pasadena			X	
Santa Monica			X	
Los Angeles City			X	
Los Angeles County			X	
Palm Desert				X

mentorship programs specific to Southern California, and remove financial barriers by providing easy access to solar funding sources.

CCSE REGIONAL SUNSHOT TEAM

The CCSE Southern California regional team consists of the following local governments across the counties of San Diego, Los Angeles, Orange and Riverside: the cities of Los Angeles, San Diego, Chula Vista, Anaheim, Santa Ana, Long Beach, Palmdale, Pasadena, Santa Monica and Palm Desert, and the County of Los Angeles.

REGIONAL UTILITY PROVIDERS

Sun Shot Participants	Gas & Electric Utility									
	SDG&E	SCE	SCG	Pasadena	Anaheim	LADWP	Long Beach	Burbank	Glendale	Asuza
San Diego	X									
Chula Vista	X									
Anaheim			X		X					
Santa Ana		X	X							
Long Beach		X					X			
Palmdale		X	X							
Pasadena			X	X						
Santa Monica		X	X							
Los Angeles City			X			X				
Los Angeles County		X	X	X		X	X	X	X	X
Palm Desert		X	X							

These local governments are served by multiple utility companies including the three largest Southern California utilities: Southern California Edison (SCE), Southern California Gas Company (SCG) and San Diego Gas and Electric (SDG&E).

PURPOSE

This Solar Financing Guidebook was developed in support of the SunShot Initiative's Rooftop Solar Challenge and to meet the goals set by the CCSE Southern California regional team. The main intent of this guidebook is to serve as a quick reference resource to assist residential and commercial property owners and contractors in navigating the financing options available to fund solar installations. The Guide also includes information about more

INTRODUCTION

comprehensive upgrades including energy efficiency, water efficiency and other renewable clean energy sources.

DIRECTION FOR LOCAL GOVERNMENTS

For local governments interested in offering any of the listed financing programs either to their constituents or for their own municipal buildings, this guide can aid in evaluating the potential and the differences between programs. Contact information is provided for each of the programs and CCSE has unpublished supplemental information available to local governments upon request. In addition, the Southern California Regional Energy Center (SoCal REC) is available to answer questions from any Southern California jurisdiction relating to local government projects, provide support, and be a free, third party, non-affiliated resource.

Southern California Regional Energy Center
David Cohen
(310) 871-5018
dcohen@energycoalition.org
www.SoCalREC.com

In early 2013, the SoCal REC will be rebranded to the Southern California Regional Energy Network (SoCal REN).

For property owners and contractors, Energy Upgrade California and the SoCal Regional Energy Network are available to answer questions related to residential, commercial, and multi-family projects, provide support, and be a free, third party, non-affiliated resource.

Energy Upgrade California
www.EnergyUpgradeCA.org

SoCal Regional Energy Network
1-855-SOCA-TEN
www.scenergynetwork.org



PROGRAM MATRIX

Sun Shot Participants	Anaheim	Chula Vista	Long Beach	Los Angeles City	Los Angeles County	Santa Ana	Palmdale	Palm Desert	Pasadena	San Diego	Santa Monica
ABX 114 (CAEATFA)	X	X	X	X	X	X	X	X	X	X	X
AFC First Energy Loan	X	X	X	X	X	X	X	X	X	X	X
CaLease	X	X	X	X	X	X	X	X	X	X	X
California FIRST		X								X	
CEC Energy Efficiency Financing	X	X	X	X	X	X	X	X	X	X	X
CHF Residential Energy Retrofit Program*											
City of Santa Monica Revolving Loan Fund											X
Energy Revolving Loan Fund	X	X	X	X	X	X	X	X	X	X	X
ESCO	X	X	X	X	X	X	X	X	X	X	X
FHA 203(k) Rehab Loan	X	X	X	X	X	X	X	X	X	X	X
FigTree PACE										X	
Home Equity Line of Credit	X	X	X	X	X	X	X	X	X	X	X
Home Equity Loan	X	X	X	X	X	X	X	X	X	X	X
Home Upgrade, Carbon Downgrade		X									
HUD Title 1 Power Saver Loan	X	X	X	X	X	X	X	X	X	X	X
LA County Commercial PACE				X	X						
LA County Energy Loans					X						
Low Interest Energy Efficiency Loan	X										
METRO Home Energy Efficient Loan Program		X								X	
METRO Solar Loan Program		X								X	
METRO's City of San Diego Home Energy Loan Program										X	
Palm Desert Energy Independence								X			
Public Agency Master Lease	X	X	X	X	X	X	X	X	X	X	X
SCE Solar Rooftop Program								X			
Solar Lancaster **											
Solar Lease	X	X	X	X	X	X	X	X	X	X	X
Solar Power Purchase Agreements	X	X	X	X	X	X	X	X	X	X	X
Statewide Clean Energy Loan Program	X	X	X	X	X	X	X	X	X	X	X
The HERO Program ***											
Utility On-Bill	X	X	X	X	X	X	X	X	X	X	X

* The CHF Residential Energy Retrofit Program does not currently offer their financing in Southern California, but plans to offer it in early 2013.

** Solar Lancaster is not part of the Regional SunShot Team. However, since Lancaster is a city located in Los Angeles County, which is a part of the Regional SunShot team, the program was included in this Financing Guide.

*** The HERO Program does not currently offer their financing to any of the Regional SunShot team, but plans to offer it in 2013.

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RESIDENTIAL - COMMERCIAL - MUNICIPAL

www.scenergynetwork.org
1-855-SOCA-TEN

Solar Lease

Project Information

Eligible Measures

Solar, Renewables

The Solar Lease provider determines all property and owner eligibility criteria

Financing Information

The Solar Lease provider determines financing rate, terms and amounts.

Solar Leases are similar to Power Purchase Agreements in that a third party pays for and owns the system, but with this financing mechanism a customer pays a fixed fee that is not tied to actual use and is 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 upfront 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 upfront capital needed to purchase the solar system outright, who do not qualify for a low interest loan because there is not enough equity in their property or who are pursuing solar for reasons other than long term financial savings. A zero down solar lease often has an annual payment increase that may range from 2 to 4% as part of the terms which can have a significant impact on the actual savings of a solar lease.

A money down lease 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 upfront expenditure than the money down lease, but it is still less than purchasing the system upfront. 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 upfront investment and incur other financial penalties for terminating the lease too early.

Available Region:
All locations

Type of Financing:
*Third Party
Ownership*



RESIDENTIAL - COMMERCIAL - MUNICIPAL

Local Contact:
www.scenergynetwork.org
1-855-SOCA-TEN

General Contact:
www.epa.gov/greenpower/buygp/solarpower.htm

Solar Power Purchase Agreements

Financing Information

PPA financing terms are typically not provided to the host; however, rates and tax benefits that the owner receives may also be passed on to the host. SoCal REC is available to help negotiate PPAs.

Power Purchase Agreements (PPAs) are a financing option for projects that generate power in which a third party owns, develops and finances the project's installation, recovering their costs through the sale of project output (renewable energy) to the host (site owner). Little or no capital outlay is needed to install the panels. Using this funding option, property owners avoid the upfront cost of the solar installation while being able to take advantage of the benefits of clean energy and lower energy costs. The third party is able to offer the energy at lower rates based on their receipt of tax benefits to reduce the overall cost of the system.

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 to 4 percent per year. Some PPAs assume that future rate increases will be as much as 6 percent 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 proceeding year. Although uncommon, another PPA risk is that the system is oversized and the site owner 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.

Available Region:
All locations

Type of Financing:
Third Party Ownership

Project Information

Eligible Measures

Solar, Renewables

The PPA developer determines all property and owner eligibility criteria



RESIDENTIAL

malvarez@treasurer.ca.gov

(916) 651-5105

www.treasurer.ca.gov/caeatfa/index.asp

ABX 114 (CAEATFA) Loan Loss Reserve

Financing Information

Rates/Terms/ Fees

Varies based on financial institution

This new, low fixed-rate loan is designed specifically for solar projects. ABX114 is not a financing program by itself. Instead, it provides funds to protect against loan losses to financial institutions interested in creating energy efficiency or solar loan programs that meet the basic parameters outlined in the ABX114 legislation. ABX114 authorizes the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) to administer a Clean Energy Upgrade Financing Program to finance the installation of distributed generation renewable energy sources, electric vehicle charging infrastructure, or energy or water efficiency improvements on homes or small commercial properties. Participating financial institutions include: Matadors Community Credit Union, SAFE Credit Union, Sacramento Municipal Utilities District, and Bank of Stockton. Matadors is able to service customers in the entire state. The others are location specific. Single family detached properties and multi-family properties with three or fewer units may qualify for the CAEATFA loan loss reserve funds.



Available Region:
California

Type of Financing:
Secured or Unsecured

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency

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

Required Audit

Yes, pre and post-project assessments are required

Contractors

Varies based on financial institution



RESIDENTIAL

(888) 232-2477

www.energyloan.net

AFC First Energy Loan

Financing Information

Min./ Max. Amount

\$1,000 - \$25,000

Rate

Fixed rate, contact program for details

Term

3-, 5- and 10-year terms

Fannie Mae offers a direct, non-recourse consumer loan program that will finance up to \$20,000 in energy improvements without putting a lien on your home. The AFC First Energy Loan is a simple interest, fixed rate loan with longer terms available than typical bank financing. Eligible properties include single family detached homes and attached homes of two or fewer units.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

All work can be financed so long as 50% of the project includes eligible energy efficiency or renewable measures

Required Audit

No

Contractors

AFC First EnergyLoan Approved Contractors only

Available Region:
All locations

Type of Financing:
Unsecured



RESIDENTIAL

answers@hud.gov

(800) 225-5342

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

FHA 203(k) Rehab Loan

Financing Information

Min./ Max. Amount

Up to 100% of cost of eligible energy efficient improvements

Rate

Negotiable between the borrower and the lender

Term

Maximum term, 30 years

The Federal Housing Administration (FHA), which is part of the U.S. Department of Housing and Urban Development (HUD), administers various single family mortgage insurance programs. These programs operate through FHA-approved lending institutions which submit applications to have the property appraised and have the buyer's credit approved. The lenders fund the loans insured by HUD, thereby giving a line of credit to the property owner to make property upgrades, such as solar PV installations. The FHA Rehab Loan allows a variety of residential property types to participate including: new and existing single family detached homes and HUD-approved condominiums.

Project Information

Eligible Measures

Solar, Energy Efficiency

New construction must conform with local codes and HUD Minimum Property Standards. Rehabilitation of existing structures requires energy efficiency measures including weather-stripping, caulking, and insulation.

Required Audit

Yes, Uniform Residential Appraisal Report and HUD Inspection

Contractors

Any licensed contractor can complete the project

Available Region:
All locations

Type of Financing:
Secured



RESIDENTIAL

Call a local lending institution for details.

www.federalreserve.gov/pubs/equity/equity_english.htm

Home Equity Line of Credit

Financing Information

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

A Home Equity Line of Credit (HELOC) is a line of credit extended to a homeowner that uses the home as collateral. Once the credit line and maximum loan balance are established, the homeowner may draw on the line of credit at his or her discretion. The entire available sum does not need to be drawn down in one payment; it may be drawn down in multiple amounts. 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 that an interest rate 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 1 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.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency
Any project type is eligible

Required Audit

No

Contractors

Any licensed contractor can complete the project

Available Region:
All locations

Type of Financing:
Secured



RESIDENTIAL

Call a local lending institution for details.

www.federalreserve.gov/pubs/equity/homeequity.pdf

Home Equity Loan

Financing Information

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

A Home Equity Loan (HEL) is a line of credit secured by your home. When the line of credit is drawn down, the financial institution providing it places a second mortgage lien on the home until the loan is paid off. The line of credit must be drawn down in one lump sum and repayments starts immediately. However, if the loan is not paid off, the property could be sold to pay off the remaining debt. Interest rates on such loans are usually adjustable rather than fixed and lower than standard second mortgages or credit cards. These types of loans are typically available through banks and credit unions.

Available Region:
All locations

Type of Financing:
Secured

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency
Any project type is eligible

Required Audit

No

Contractors

Any licensed contractor can complete the project



RESIDENTIAL

(866) 740-3677

www.powersaverloan.com

HUD Title 1 PowerSaver Loans

Financing Information

Min./ Max. Amount

\$25,000 maximum

Term/ Rate

15 years = 7.707% for Energy Efficiency

20 years = 7.983% for Renewables

The PowerSaver Loan Program, administered by SunWest and EGIA, is available to residential property owners. This program, available through pre-screened EGIA GEOSmart Authorized Contractors, offers eligible homeowners competitive interest rate loans backed by HUD/ FHFA for up to 15 years for qualified whole house improvements and up to 20 years for renewable energy improvements. Often, financing programs charge a fee to contractors, however, with PowerSaver, there is no cost to the contractor to offer these loans at below-market interest rates. The PowerSaver Loan Program allows a variety of residential property types to participate including single family detached homes and HUD-approved condominiums.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

Yes, must be completed by SunWest

Contractors

GeoSmart Authorized Contractors only



**Available Region:
All locations**

**Type of Financing:
Secured**



RESIDENTIAL

info@chfloan.org

(855)740-8422

www.chfloan.org

CHF Residential Energy Retrofit Program

Financing Information

Min./ Max. Amount

\$50,000 maximum

Rate

6.5%

Term

15 years

The CHF Residential Energy Retrofit Program was developed to assist homeowners with making energy efficiency improvements to their home and to positively impact California's economy through job creation. The Program is currently made possible through funding from Pacific Gas & Electric Company and a partnership with private investor Five Star Bank. The Program has up to \$20 million in loan financing available to PG&E customers in 44 counties with plans to expand to Southern California in 2013. Owner-occupied single-family detached properties and multi-family properties with four or fewer units may qualify for the CHF Residential Energy Retrofit Program. CHF plans to expand its loan program to Southern California in 2013.

Project Information

Eligible Measures

Solar, Energy Efficiency *(will include solar and renewables in the future)*
All financed projects must demonstrate a minimum 10 % energy savings

Required Audit

Yes, HERS II rating

Contractors

Must be approved by the Program



Available Region:
PG&E territory
(Will expand to SoCal in 2013)

Type of Financing:
Unsecured



RESIDENTIAL

LAhelpdesk@EnergyUpgradeCA.org

(213) 444-6382

www.energyupgradeca.org/county/los_angeles/about_local_financing

Los Angeles County Energy Loans

Financing Information

Min./ Max. Amount

\$2,500 - \$50,000

Term/ Rate

5 years = 4.99%

10 years = 5.99%

15 years = 6.99%

Energy Upgrade California in Los Angeles County offers 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 or the Los Angeles County Flex Path Incentive Programs. Solar projects must be completed in conjunction with or following a qualifying energy efficiency project. The program currently operates in LA County only; however, it plans to expand to other Southern California locations in 2013. Owner-occupied single-family detached properties may qualify for the LA County Energy Loan Program.

Project Information

Eligible Measures

Solar, Energy Efficiency

All projects must complete either the Energy Upgrade California or LA County Flex Path incentive programs. Solar projects must complete the California Solar Initiative Incentive Program. Energy efficiency projects must be completed in conjunction with or prior to financing solar.

Required Audit

As required by the incentive programs

Contractors

Must be an LA County Energy Upgrade Participating Contractor



Available Region:
Los Angeles County & joint SCE/SCG territory

Type of Financing:
Unsecured



RESIDENTIAL

(888) 907-3628

www.sdmcu.org/home/products/energysolarloans

METRO's Solar Loan Program

Financing Information

Min./ Max. Amount

\$2,000 - \$50,000

Rate

4.99% to 9.99%

Term

5 to 15 years

This new, low fixed-rate loan is designed specifically for solar projects for County of San Diego homeowners. METRO's Solar Loan Program can also work in conjunction with METRO's Home Energy Efficient Loan Program making it easy for homeowners to install comprehensive whole house energy projects that both conserve and produce energy. Owner-occupied single-family detached properties and multi-family properties with four or fewer units may qualify for METRO's Solar Loan Program.

Project Information

Eligible Measures

Solar

The Program will finance all solar measures including hot water heating, photovoltaic systems, panel systems and outdoor lighting. Up to 20% of the total loan amount may go toward financing non-energy efficiency measures necessary to facilitate the completion of the project.

Required Audit

No

Contractors

Must be a participating METRO Solar Loan Contractor. A 3% fee will be charged to contractors for each financed project.



Available Region:
County of San Diego

Type of Financing:
Unsecured



RESIDENTIAL

info@matadors.org

(818) 993-6328

www.matadors.org/loans/energyloans.html

Statewide Clean Energy Loan Program

Financing Information

Min./ Max. Amount

\$2,500 - \$50,000

Term/ Rate

5 years = 4.99%

10 years = 5.99%

15 years = 6.99%

Matadors Community Credit Union offers Energy Loans with preferred interest rates in conjunction with the Energy Upgrade California™ incentive and rebate program. Clean Energy Loans offer property owners utility incentives and preferred financing options on eligible residential energy efficiency and solar projects. Owner-occupied single family detached properties may qualify for this Statewide Clean Energy Loan Program.

Project Information

Eligible Measures

Solar, Energy Efficiency

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

Required Audit

Yes, pre and post-project assessments are required

Contractors

Must be an Energy Upgrade Participating Contractor with a BPI certification



Available Region:
California

Type of Financing:
Unsecured



RESIDENTIAL

mshah@figtreecompany.com

(877) 577-7373

www.figtreecompany.com

FigTree Residential PACE

Financing Information

Min./ Max. Amount

\$1,000 minimum

Rate

6% to 8%

Term

Maximum term, 20 years but can not exceed life of improvements

FigTree is a San Diego-based clean energy finance company providing Property Assessed Clean Energy (PACE) financing that puts money-saving energy efficiency, renewable energy and water conservation upgrades within reach of owners of a wide range of residential property types. FigTree's PACE program allows owners to finance improvements and pay for them over a defined period of time through an assessment line item on their property tax bill. The program is designed as a full-service, flexible and free-market program enabling the best service and the lowest cost to a property owner. FigTree oversees the entire process from application, qualification, financial analysis, and lender consent to funding. FigTree can begin financing PACE projects in the City of San Diego once it has completed a judicial validation, which is expected soon.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

No

Contractors

Must be approved by the Program

Lender Consent

Not required



Available Region:
City of San Diego

Type of Financing:
PACE



RESIDENTIAL

malvarez@cityofpalmdesert.org

(760) 346-0611

[www.cityofpalmdesert.org/
Index.aspx?page=484](http://www.cityofpalmdesert.org/Index.aspx?page=484)

Palm Desert Energy Independence Program

Financing Information

Min./ Max. Amount

\$5,000 - \$100,000

Rate

8% to 10%

Term

Maximum term, 20 years but can not exceed life of improvements

Part of the City's five-year goal to cut energy usage by 30%, the Palm Desert Energy Independence Program offers a wide range of homeowners affordable financing for major energy-saving property improvements, such as high-efficiency air conditioners, dual-pane windows and solar panels. Long-term payback of the improvements is linked to the owner's property taxes. In February 2010, the City announced the release of \$6 million in new funding for the program. Half of the new funds will be dedicated to loans for energy efficiency improvements with the other half reserved for loans for solar projects.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

Recommended, but not required

Contractors

Any licensed contractor can complete the project

Lender Consent

Required



Available Region:
Palm Desert

Type of Financing:
PACE



RESIDENTIAL

Info@herofinancing.com

(855)437-6411

www.herofinancing.com

The HERO Program

Financing Information

Min./ Max. Amount

\$5,000 minimum

Rate

5% to 8%

Term

Maximum term, 25 years but can not exceed life of improvements

The HERO Program offers low cost, fixed interest rate financing for a broad range of energy and water efficient projects and renewable energy systems. Residential property owners repay the HERO Financing through their property taxes for up to 20 years. The HERO Program allows a variety of residential property types to participate including: single family detached homes, duplexes, multi-family properties of 4 or less units and mobile homes.



Available Region:
**Western Riverside
& San Gabriel
Valley Council of
Government Regions**

Type of Financing:
PACE

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency
Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

No

Contractors

Must be approved by the Program

Lender Consent

Not required



RESIDENTIAL COMMERCIAL

Conservation@ci.chula-vista.
ca.us

(619) 409-3893

www.chulavistaca.gov/clean/conservation/climate/hucd.asp#L

Home Upgrade, Carbon Downgrade Community Revolving Loan Fund

Financing Information

Min./ Max. Amount

\$2,500- \$25,000

Rate

0%

Term

Maximum term, 10 years

The Home Upgrade, Carbon Downgrade Community Revolving Loan Fund's goal is to provide low interest financing for residential and commercial property owners in Chula Vista to implement energy efficiency retrofits and/or to install renewable energy systems. The financing program helps reduce utility costs for individuals, while leveraging existing federal and state rebates, and contributing to meeting the City's environmental goals. Retrofit projects which save at least 10 million BTU (equivalent to approximately 3,000 kWh or 100 therms) per \$1,000 spent and have a payback period of 5 years or less will be prioritized. The American Recovery & Reinvestment Act under the auspices of the Department of Energy funds the program.



Available Region:
Chula Vista

Type of Financing:
Revolving Loan

Project Information

Eligible Measures

Solar, Energy Efficiency

Improvements must result in long-lasting energy savings and be completed by a contractor on the City's Home Upgrade, Carbon Downgrade Eligible Contractors List. Property owners must complete SDG&E's Online Energy Efficiency Survey and install energy efficiency measures before solar measures.

Required Audit

Yes, SDG&E's Online Energy Efficiency Survey

Contractors

Project must be completed by HU/CD Contractor



RESIDENTIAL COMMERCIAL

(877) 858-SOLAR

www.solarlancaster.org

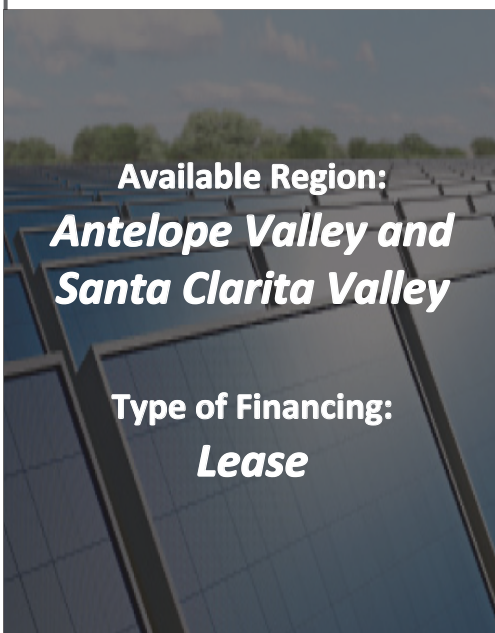
Solar Lancaster

Financing Information

Rates/ Terms/ Fees

Contact SolarCity for detailed information. A residential lease for a 5 kW system starts at \$110 per month with an annual increase of 3.9% each year for 20 years, on approved credit.

Solar Lancaster is a collaboration between the city of Lancaster and SolarCity® created to offer residents, businesses and nonprofit organizations in the Antelope Valley and Santa Clarita Valley more affordable ways to adopt solar power. The customer's monthly electricity bill is typically reduced by more than the cost of the monthly solar lease payment, with no upfront costs. The City of Lancaster and SolarCity are working together to simplify the process by offering discounted pricing, custom solar system designs, and solar system monitoring. Solar Lancaster will handle all permit and rebate paperwork for the property owner. In addition, the City of Lancaster is providing a \$500 incentive to participating customers



Available Region:
***Antelope Valley and
Santa Clarita Valley***

Type of Financing:
Lease

Project Information

Eligible Measures

Solar

Required Audit

Yes

Contractors

Contractors must be approved by SolarCity



COMMERCIAL

info@californiafirst.org

(510) 692-9995

www.californiafirst.org

CaliforniaFIRST

Financing Information

Min./ Max. Amount

\$50,000 minimum

Rate

6% to 8%

Term

Maximum term, 20 years but can not exceed life of improvements

CaliforniaFIRST is an innovative financing program that connects property owners with low cost capital to finance energy efficiency, water efficiency and renewable energy improvements. CaliforniaFIRST's Property Assessed Clean Energy (PACE) program allows owners to receive upfront funding for property improvements and repay the cost of improvements through a line item on their property taxes over the course of up to 20 years. The Program is offered by the California Statewide Communities Development Authority, a statewide joint powers authority sponsored by the California State Association of Counties and the League of California Cities. CaliforniaFIRST is authorized to operate in many cities in California and is actively taking applications.

Available Region:
*City of San Diego
Carlsbad, Chula Vista,
Coronado, Del Mar,
Encinitas, Escondido,
La Mesa, Lemon
Grove, Oceanside,
Poway, Santee, Solana
Beach*

Type of Financing:
PACE

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

Yes, ASHRAE level 2 or equivalent

Contractors

Any licensed contractor can complete the project

Lender Consent

Required



COMMERCIAL

mshah@figtreecompany.com

(877) 577-7373

www.figtreecompany.com

FigTree Commercial PACE

Financing Information

Min./ Max. Amount

\$5,000 minimum

Rate

6% to 8%

Term

Maximum term, 20 years but can not exceed life of improvements

FigTree is a San Diego-based clean energy finance company providing Property Assessed Clean Energy (PACE) financing that puts money-saving energy efficiency, renewable energy and water conservation upgrades within reach of owners of a wide range of property types. FigTree's PACE program allows owners to finance improvements and pay for them over a defined period of time through an assessment line item on their property tax bill. The program is designed as full-service, flexible and free-market program enabling the best service and the lowest cost to a property owner. FigTree oversees the entire process from application, qualification, financial analysis, and lender consent to funding. FigTree can begin financing PACE projects in the City of San Diego once it has completed a judicial validation process, which is expected soon.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

No

Contractors

Must be approved by the Program

Lender Consent

Required



Available Region:
City of San Diego

Type of Financing:
PACE



COMMERCIAL

info@lapace.org

(877)785-2237

www.LApance.org

Los Angeles County PACE Financing Program

Financing Information

Min./ Max. Amount

None

Rate

6% to 8%. Varies depending on rates negotiated with investor

Term

Maximum term, 20 years but can not exceed life of improvements

The Los Angeles County Property Assessed Clean Energy (PACE) Financing Program is an option available to Los Angeles County commercial, industrial and multi-family property owners to fund improvements that are proven to save water or energy, or create renewable energy onsite. 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.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

Yes, ASHRAE level 2 or equivalent

Contractors

Any licensed contractor can complete the project

Lender Consent

Required



Available Region:

Los Angeles County

Type of Financing:

PACE



COMMERCIAL

malvarez@cityofpalmdesert.org

(760) 346-0611

[www.cityofpalmdesert.org/
Index.aspx?page=484](http://www.cityofpalmdesert.org/Index.aspx?page=484)

Palm Desert Energy Independence Program

Financing Information

Min./ Max. Amount

\$5,000 - \$100,000

Rate

6% to 8%

Term

Maximum term, 20 years but can not exceed life of improvements

Part of the City's five-year goal to cut energy usage by 30 percent, the Palm Desert Energy Independence Program offers business owners affordable financing for major energy-saving property improvements. Long term payback of the improvements is linked to the owner's property taxes. In February 2010, the City announced the release of \$6 million in new funding for the program. Half of the new funds will be dedicated to loans for energy efficiency improvements with the other half reserved for loans for solar projects.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

Recommended, but not required

Contractors

Any licensed contractor can complete the project

Lender Consent

Required



Available Region:
Palm Desert

Type of Financing:
PACE



COMMERCIAL

Info@herofinancing.com

(855)437-6411

www.herofinancing.com

The HERO Program by Renovate America

Financing Information

Min./ Max. Amount

\$5,000 minimum

Rate

5% to 8%

Term

Maximum term, 25 years but can not exceed life of improvements

The HERO Program offers low cost, fixed interest rate financing for a broad range of energy and water efficiency projects and renewable energy systems. Commercial property owners repay the HERO Financing through their property taxes for up to 20 years.

Available Region:
**Western Riverside
& San Gabriel
Valley Council of
Government Regions**

Type of Financing:
PACE

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency
Improvements must be permanently located onsite and prove that they save water or energy or generate clean energy

Required Audit

No

Contractors

Must be approved by the Program

Lender Consent

Required



COMMERCIAL

elasley@anaheim.net

(714) 765-4259

www.anaheim.net/article.asp?id=4145

Low Interest Energy Efficiency Loan Program

Financing Information

Min./ Max. Amount

\$350,000 maximum

Rate

5% (Subject to change)

Term

Maximum term, 8 years

Anaheim Public Utilities (APU) offers Low-Interest Energy Efficiency Loans for energy efficiency measures to small businesses, some landlords, and nonprofit organizations through the State Assistance Fund for Enterprise, Business and Industrial Development Corporation (SAFE-BIDCO). Under this program, Anaheim customers can obtain low-interest loans with no application fees or points. In addition, APU will provide, at no cost to the customer, a comprehensive energy audit and analysis as required by SAFE-BIDCO to identify and verify energy uses and needs, and evaluate the feasibility of potential measures to improve efficiency.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency

Other projects that conserve 15% of normal usage may also be eligible

Required Audit

Yes, provided by APU at no cost

Contractors

Any licensed contractor can complete the project



Available Region:
Anaheim

Type of Financing:
Secured



COMMERCIAL MUNICIPAL

National Contact:
info@naesco.org
(202) 822-0950
[www.naesco.org/resources/
esco.htm](http://www.naesco.org/resources/esco.htm)

Local Contact:
www.scenergynetwork.org
1-855-SOCA-TEN

Energy Service Company Contracts

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Required Audit

Yes, to determine energy savings prior to improvements

Financing Information

The ESCO company determines rate, terms, fees and underwriting criteria.

An 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 and is responsible for all aspects of the project, including 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, often in excess of \$1 million.

How the cost savings get distributed is an important part of negotiating the contract. The savings always go first to servicing the debt incurred by the ESCO for financing the project. After debt service, additional savings are distributed according to contract provisions. Three common methods for distribution of savings include:

1. The guaranteed savings method 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. In shared-savings contracts, it is very important to accurately determine 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 property owner.
3. Paid-from savings contracts ensure that the ESCO receives a guaranteed amount and the local government agency gets the rest.

It is a good practice to retain a third party engineering firm to verify energy savings assumptions, calculations and M&V protocols.



Available Region:
All locations

Type of Financing:
**Third Party
Ownership**



MUNICIPAL

scarper@cacommunities.org

(925) 765-8525

www.cacommunities.org/public-agency-programs/calease

CaLease

California Communities Lease Finance Program

Financing Information

Min./ Max. Amount

\$500,000 minimum

Rate/ Term

Varies based on lender

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 CaLease Program. Properties that are municipally owned or are leased by a municipality may qualify for the CaLease Program.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Any equipment may be financed

Required Audit

No

Contractors

Any licensed contractor can complete the project



Available Region:

California

Type of Financing:

Lease to own

(Backed by bond)



MUNICIPAL

pubprog@energy.ca.gov

(916) 654-4104

www.energy.ca.gov/efficiency/financing

California Energy Commission Energy Efficiency Financing Program

Financing Information

Min./ Max. Amount

None

Rate

1%

Term

15 years

The California Energy Commission offers cities, counties, colleges, universities and K-12 schools an Energy Efficiency Financing Program with a 1% percent interest rate on loans of up to \$3 million. This 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 California Energy Commission is still accepting loan applications for future projects on a waitlist basis.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency

Required Audit

Yes

Contractors

Any licensed contractor can complete the project



Available Region:
California

Type of Financing:
Secured or Unsecured



MUNICIPAL

Matt.Henigan@smgov.net

(310) 458-2238

www.solarsantamonica.com

City of Santa Monica Municipal Facilities Revolving Loan

Financing Information

Min./ Max. Amount

None

Rate

9%

Term

10 years

The City of Santa Monica is creating a Municipal Facilities Revolving Loan Fund to help City departments make energy efficiency and renewable energy improvements to their facilities. Departments can apply for an advance of up to 100% of the project cost, with the energy cost savings used to repay the advance. The City’s Office of Sustainability and the Environment administers the Fund with oversight from a committee that includes the City Manager’s Office, Finance, and Public Works. Seed money for the Fund comes from utility rebates and similar incentives the City receives. The Fund “revolves” in the sense that the repayments from one project are used to fund future projects. The City of Santa Monica’s Revolving Loan fund is targeted toward existing buildings financed by the general fund, but may be used to finance improvements in new buildings that exceed Title 24 and CalGreen requirements. The Revolving Loan is expected to be available in 2013.

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency

All projects must include sub-metering to track energy savings

Required Audit

No

Contractors

Any licensed contractor can complete the project



Available Region:

City of Santa Monica

Type of Financing:

Cash (Revolving Loan)



MUNICIPAL

www.socalrec.com
www.scenergynetwork.org

1-855-SOCA-TEN

Public Agency Master Lease Program

Financing Information

Min./ Max. Amount

\$250,000 minimum, maximum is determined by an evaluation of project size versus budget and other factors.

Rate

2.75% to- 4.5%

Term

Maximum term, 15 years

One of the newest and most attractive leasing options available to local governments is the Southern California Regional Energy Center (SoCalREC) Public Agency Master Lease. This program is a privately funded Master Lease Agreement for energy efficiency projects installed by municipalities located in Southern California. Established by Los Angeles County and the City of Huntington Beach in collaboration with Southern California Edison and the U.S. Department of Energy, the SoCalREC Master Leasing Program is designed to provide a turnkey financing solution to local governments.

Interest rates are offered by the Lessor based on the current Treasury bond rate and the local government's credit rating. Although cash flow positive energy projects are preferred, it is not a requirement for participating in the Program. Public agencies interested in financing energy or water efficiency projects or renewable energy can either submit engineering calculations along with their application and paperwork, or they can take advantage of SoCalREC's free technical services to not only get them qualified for financing, but to apply for and qualify for rebates through the utility as well.



Available Region:
SCE - SCG utility territories

Type of Financing:
Third Party Ownership
(backed by bond)

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency

Required Audit

Yes, ASHRAE level 1

Contractors

Any licensed contractor can complete the work



MUNICIPAL

www.socalrec.com
www.scenergynetwork.org

1-855-SOCA-TEN

SoCal REC Energy Revolving Loan Fund

Financing Information

The local agency determines all financing criteria

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 the energy 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 can be 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 pool. Revolving loan funds can also be funded initially through the proceeds from incentives, grants and rebates.

Several local governments have put energy revolving fund programs in place. The City of Huntington Beach established a trust fund from documented energy savings from previous energy projects that pays an Energy Manager's salary. Similar revolving funds have also been established by Alameda County and the cities of San Jose and El Cerrito. The City of Santa Monica plans to initiate a revolving loan fund in 2013. The SoCal REC will help local governments establish an energy revolving loan fund.



Available Region:
Southern California

Type of Financing:
Self-funded (cash)

Project Information

Eligible Measures

Solar, Renewables, Energy Efficiency, Water Efficiency
The local agency determines all eligibility criteria



RESIDENTIAL

(888) 907-3628

www.sdhomeenergyupgrade.com

METRO's City of San Diego Home Energy Loan

Financing Information

Min./ Max. Amount

\$1,000 - \$25,000

Rate

4.99% to 9.99%

Term

5 to 15 years

San Diego Metropolitan Credit Union (METRO) and the City of San Diego have partnered to provide this affordable financing to City residents for home energy efficiency upgrades. Working with existing energy efficiency incentive programs offered by Energy Upgrade California and CSI-Thermal, the Home Energy Loan Program makes it more affordable to conserve energy and save money on utility bills. At the same time, upgrades can increase the comfort, health, safety and value of the home. Owner-occupied single-family detached properties and multi-family properties with four or fewer units may qualify for METRO's City of San Diego Home Energy Loan.

Project Information

Eligible Measures

Solar Thermal, Energy Efficiency

Projects must complete a qualified Energy Upgrade California or CSI-Thermal project to participate. Up to 20% of the total loan amount may go toward financing non-energy efficiency measures necessary to facilitate the completion of the project.

Required Audit

As required by the incentive programs

Contractors

Must be a participating METRO Home Energy Loan Contractor. A 3% fee will be charged to contractors for each financed project.



Available Region:
City of San Diego

Type of Financing:
Unsecured



RESIDENTIAL

(888) 907-3628

www.sdmcu.org/home/products/energysolarloans

METRO's Home Energy Efficient Loan Program

Financing Information

Min./ Max. Amount

\$1,000 - \$25,000

Rate

5.99% to 9.99%

Term

5 to 15 years

This new, low fixed rate loan is designed specifically for energy-saving projects for County of San Diego homeowners. METRO's Home Energy Efficient Loan Program can also work in conjunction with METRO's Solar Loan Program making it easy for homeowners to install comprehensive whole house energy projects that both conserve and produce energy. Owner-occupied single-family detached properties and multi-family properties with four or fewer units may qualify for METRO's Home Energy Efficient Loan Program.

Project Information

Eligible Measures

Solar Thermal, Energy Efficiency

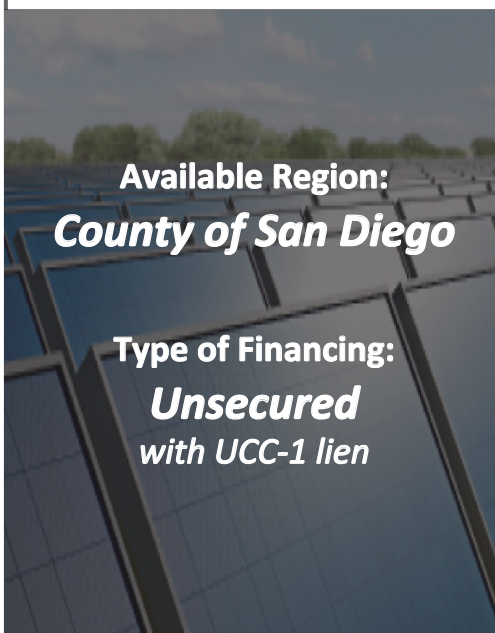
The Program will finance all measures eligible under Energy Upgrade California and CSI-Thermal Incentive Programs in addition to pool pumps. Up to 20% of the total loan amount may go toward financing non-energy efficiency measures necessary to facilitate the completion of the project.

Required Audit

No

Contractors

Must be a participating METRO Home Energy Efficient Loan Contractor. A 3% fee will be charged to contractors for each financed project.



Available Region:
County of San Diego

Type of Financing:
Unsecured
with UCC-1 lien



COMMERCIAL

SCE: (800) 990-7788

SCG: (800) 427-6584
scgobf@SempraUtilities.com

SDG&E: (800) 644-6133
BusinessEnergySavings@sdge.com

Utility On-Bill Financing

Financing Information

Min./ Max. Amount

\$5,000 to \$100,000 per meter

Rate

0%

Term

Maximum term, 5 years but cannot exceed life of improvements

SCE, SCG and SDG&E provide On-Bill Financing to their customers allowing them to make payments as part of a line item on their utility bill. On-Bill Financing offers a zero-interest loan for the installation of qualified energy-efficient equipment. Those who take advantage of this program also receive financial incentives for installing qualifying energy-efficient equipment, lower monthly electricity costs, and long-term energy savings. SCE's On-Bill Financing for commercial customers is currently oversubscribed. However, it will reopen for applications in 2013.

Web Address

SCE: www.sce.com/wps/portal/home/business/tools/on-bill-financing

SCG: www.socalgas.com/for-your-business/rebates/zero-interest.shtml

SDG&E: www.sdge.com/obf

Project Information

Eligible Measures

Energy Efficiency

All financed projects must apply for one or more of the following utility incentive/rebate programs: Express Pending Program, Customized Program, Third-Party Implementer Incentive Programs or Partnership Program

Required Audit

No

Contractors

Any licensed contractor can complete the project



Available Region:
SCE, SCG and SDG&E territories

Type of Financing:
Unsecured



MUNICIPAL

SCE: (800) 990-7788

SCG: (800) 427-6584
scgobf@SempraUtilities.com

SDG&E: (800) 644-6133
BusinessEnergySavings@sdge.com

Utility On-Bill Financing

Financing Information

Min./ Max. Amount

\$5,000 - \$250,000 per meter. May apply for one loan up to \$1 million.

Rate

0%

Term

Maximum term, 10 years but can not exceed life of improvements

SCE, SCG and SDG&E provide On-Bill Financing to their local government customers allowing them to make payments as part of a line item on their utility bill. On-Bill Financing offers a zero-interest loan for the installation of qualified energy-efficient equipment. Local governments who take advantage of this program also receive financial incentives for installing qualifying energy-efficient equipment, lower monthly electricity costs, and long-term energy savings.

Web Address

SCE: www.sce.com/wps/portal/home/business/tools/on-bill-financing

SCG: www.socalgas.com/for-your-business/rebates/zero-interest.shtml

SDG&E: www.sdge.com/obf

Project Information

Eligible Measures

Energy Efficiency

All financed projects must apply for one or more of the following utility incentive/rebate programs: Express Pending Program, Customized Program, Third-Party Implementer Incentive Programs or Partnership Program

Required Audit

No

Contractors

Any licensed contractor can complete the project



Available Region:
SCE, SCG and SDG&E territories

Type of Financing:
Unsecured

*This Solar Finance Guide was completed by
Design-Manage-Sustain for the California
Center for Sustainable Energy and the
Department of Energy's SunShot Solar
Initiative.*

Design-Manage-Sustain
(949) 529-0093
www.manage-sustain.com