County of Los Angeles

This page outlines solar PV incentives, financing mechanisms, permitting process, and interconnection information for the County of Los Angeles and the utility that serves its territory, Southern California Edison.

To skip directly to each section please use these hyperlinks:

Find an Installer | Financing | Incentives | Permitting | Interconnection

Contact Information

County of Los Angeles **Building and Safety Division Headquarters**900 S. Fremont Avenue, 3rd Floor

Alhambra, CA 91803

Regional Permitting Offices in Los Angeles County:

http://dpw.lacounty.gov/bsd/index.cfm?p=offices

Phone:

Building Section: (626) 458-3173 Electrical Section: (626) 458-3180

Email:

Email Building and Safety Division

Website:

http://dpw.lacounty.gov/bsd/index.cfm?p=sections

Hours (specific to each regional office):

http://dpw.lacounty.gov/bsd/index.cfm?p=offices

OVERALL SOLAR PROCESS:



Find an Installer

- Qualified contractors are your key to getting the most productive solar energy system for your home or business.
 - Typically solar installers will:
 - Locate financing programs to fit your needs
 - Apply for rebates and incentives on your behalf
 - Apply for local permits
 - Install your PV system
 - Arrange for your PV system to be interconnected to your utility's power grid
- California Solar Statistics provides a searchable/sortable list of Installers, Contractors, and Sellers by area who can help you in the process of going solar:
 - o http://californiasolarstatistics.com/search/contractor/
 - o Important Notes:
 - Costs are measured on a per watt basis

- It is important to remember that cost is not the only factor involved in system installation.
- It is highly recommended to contact a minimum of three installers to compare costs, system sizing, and services offered before signing a contract.

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Financing Information

Federal Solar Incentives

- o Residential Renewable Energy Tax Credit
 - A taxpayer may claim a credit of 30% of qualified expenditures for a solar system that serves a residence located in the United States that is owned and used as a residence by the taxpayer.
 - http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=U
 S37F&re=1&ee=1
- o Business Energy Investment Tax Credit (ITC)
 - This federal tax credit is equal to 30% of expenditures on a solar system, with no maximum credit.
 - http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=U
 S02F&re=1&ee=1

Third Party Ownership

- o Solar Power Purchase Agreements
 - A Solar Power Purchase Agreement is a financial arrangement in which a third-party developer owns, operates, and maintains the photovoltaic system, and a host customer agrees to site the system on its property and purchases the system's electricity. With this business model, the host customer buys the kilowatt hours of electricity produced by the PV system rather than the PV system itself. This financial arrangement allows the host customer to receive stable, and sometimes lower cost electricity, while the solar services provider or another party acquires valuable financial benefits such as tax credits and income generated from the sale of electricity to the host customer.
- o Solar Leases
 - 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

monthly fee that is not tied to actual use and is responsible for system performance, operations and maintenance.

- www.energycenter.org/index.php/incentive-programs/california-solarinitiative/csi-latest-news/2167-why-pay-to-install-solar
- o Southern California Edison Solar Rooftop Program
 - This commercial leasing program allows commercial building owners to lease their roof space to SCE to install solar systems. SCE will pay the building owners to lease their rooftop and generate electricity for the SCE energy grid.
 - www.sce.com/solarleadership/solar-rooftop-program/

Property Assessed Clean Energy (PACE) Programs

- o Commercial PACE
 - The Los Angeles County PACE program offers funding for nonresidential solar projects. Under this program property owners can negotiate project-specific financing terms with the investor(s) of their choice, and repay the cost of the upgrade over time through a voluntary contractual assessment on the property tax bill.
 - https://commercial-pace.energyupgradeca.org/county/los_angeles/overview

Secured Financing

Secured financing is a loan in which the borrower pledges some asset as collateral. Typically for a solar installation this collateral is a home or building. The following secured loans are available in the SCRC region:

- Home Equity Lines of Credit (HELOCs) and Home Equity Loans (HELs)
 - HELOCs are forms of revolving credit in which a home serves as collateral. A HEL is a
 loan that has a fixed rate and term and also uses a home as collateral. The major
 difference between these two types of financing mechanisms is that HELOCs are
 similar to a credit card you can withdraw money as needed and pay back the debt
 indefinitely whereas an HEL gives you a one-time lump sum of cash that is paid off
 over a fixed amount of time. These types of loans are typically available through
 banks.
 - Home Equity Lines of Credit:
 www.federalreserve.gov/pubs/equity/equity_english.htm
 - Home Equity Loans: http://www.federalreserve.gov/pubs/bulletin/1998/199804lead.pdf
- o FHA 203(k) Rehabilitation Loans

- 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. These lenders fund the mortgage loans which the HUD insures, thereby giving a line of credit to the property owner to make property upgrades, such as solar PV installations.
 - http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/2
 03k/203kabou
- HUD Title 1 PowerSaver Loans (Secured or Unsecured)
 - The PowerSaver program insures loans to finance small or moderate improvements to a home, such as a solar energy upgrade. The PowerSaver pilot will provide lender insurance for secured and unsecured loans up to \$25,000 to single family homeowners specifically targeting residential energy efficiency and renewable energy improvements.
 - www1.eere.energy.gov/wip/solutioncenter/financialproducts/PowerSaver.h
 tml
- o Los Angeles County Energy Loans
 - The Energy Upgrade California (EUC) Program in Los Angeles County offers property owners a 2% interest rate on eligible residential energy efficiency and solar projects.
 These loans are offered through Matadors Community Credit Union with support from Los Angeles County.
 - https://energyupgradeca.org/county/los_angeles/about_local_financing

Unsecured Financing

Unsecured financing is a loan that is not backed by any collateral. Credit cards and personal loans are the most common examples of unsecured financing. Unsecured financing products available for energy upgrades include personal loans and contractor-sponsored products. However, unsecured financing does come with drawbacks: a good line of credit is typically required with no collateral and the interest rates tend to be higher than with secured loans. However, with some publicly-supported programs, the jurisdiction will pay the interest rate down to attract borrowers.

- o Fannie Mae Energy Loan
 - 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. Energy Loan is a simple interest, fixed rate loan with longer terms available then typical bank financing.
 - www.energyloan.net/index.php
- o Los Angeles County Energy Loans
 - As with the secured loan, Matadors Community Credit Union and Los Angeles
 County are offering low-interest loans for energy upgrades and renewable energy
 projects.
 - https://energyupgradeca.org/county/los angeles/about local financing
- o Clean Energy Upgrade Financing Program ABX1 14
 - ABX1 14 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 the installation of distributed generation
 renewable energy sources, electric vehicle charging infrastructure, or energy or
 water efficiency improvements on homes or small commercial properties.
 - http://www.treasurer.ca.gov/caeatfa/abx1 14/index.asp

Other Financing Mechanisms

- o Feed-in Tariff (FIT)
 - Under a feed-in tariff, eligible renewable electricity generators are paid for the generating renewable electricity and feeding it into the utility grid.
 - SCE FIT Program
- o Virtual Net Metering
 - VNEM is similar to ordinary Net Energy Metering (NEM) but is for multimetered properties. VNEM is an agreement under which a share of production credits from a single solar system can be distributed to individual ratepayers in a multi-tenant property.
 - http://www.sce.com/customergeneration/net-energy-faqs/netenergy-metering-faqs.htm#vnm

Incentive Information

Federal Solar Incentives

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 S02F&re=1&ee=1

• California Solar Initiative (CSI)

o www.gosolarcalifornia.com/csi

• Program Administrator

o Southern California Edison

Phone: (866) 584-7436
 Email: <u>CSIGroup@sce.com</u>
 Website: www.sce.com/csi

Step by Step Process of getting a CSI solar rebate

o Step 1: Energy Efficiency Audit

Complete an energy efficiency audit and make sure to take advantage of all the costeffective ways to save energy and money in your home or business.

- o Step 2: Find a Solar Installer
 - Qualified contractors are your key to getting the most productive solar energy system for your home or business.
- o Step 3: Apply for Rebates
 - Qualified contractors will handle the CSI application process for your rebates in two or three steps.
- o Step 4: Install Your System
 - If you have received your reservation confirmation letter, you're ready to install your system and interconnect to the utility's power grid.

o Step 5: Claim Your Incentive

When your project is installed and operational you may submit the Incentive Claim Form.

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Permitting Process Information

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Phone:

Building Section: (626) 458-3173 Electrical Section: (626) 458-3180

Email:

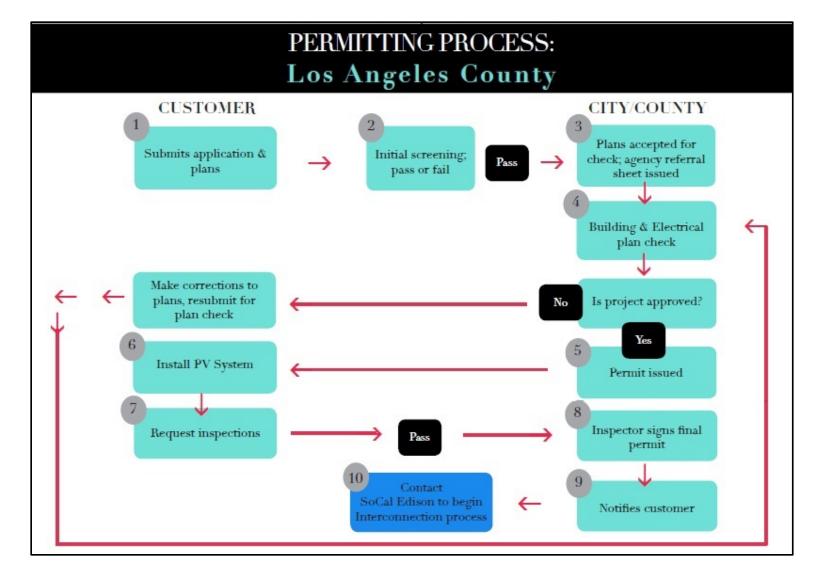
Email Building and Safety Division

Website:

http://dpw.lacounty.gov/bsd/permitinfo/index.cfm

Hours (specific to each regional office)

http://dpw.lacounty.gov/bsd/index.cfm?p=offices



Permitting Process:

STEP 1: Submit Applications and Plans

- 1. Solar System Plan Review with Building Department
 - o Submittal Requirements
 - Complete <u>Best Management Practices for Construction Activities</u>
 - Two complete sets of plans, calculations, soils report, Title 24 energy requirements, etc., as applicable per the
 - o Residential Minimum Plan Submittal Requirements and
 - o Non-Residential Minimum Plan Submittal Requirements
 - One additional set of architectural plans that includes:
 - 1. Site plan
 - 2. Dimensioned floor plans
 - 3. Elevations for the County Assessor's records

- Site Plan/Roof Plan
 - 1. The address of the building, and the name and address of the owner(s), and person(s) preparing the plans are required on the first sheet of the plans.
 - 2. Provide a roof plan projected on a site plan. Show street name(s) and north arrow.
 - 3. Show the locations and dimensions of all solar photovoltaic equipment and PV arrays.
 - 4. Specify roofing material, number of layers, and slope(s) on roof plan.
 - 5. Attach all manufacturer specification sheets, installation instructions and UL listings to the plans.
- Review Design Requirements on <u>Solar System Plan Review</u>
 - 1. Roof Mounted Systems on Page 1
 - 2. Ground Mounted Systems on Page 2
 - 3. Review Electrical Requirements on Solar System Plan Review (Page 2)
- Completed Application for Building Permit
- Paid plan check fees

STEP 2: Initial Screening

o Los Angeles County will do a quick screening to ensure all documents are included in the application.

STEP 3: Plans are accepted for plan check

o If the initial screen is approved from STEP 2, the application will be moved to plan check.

STEP 4: Building and Electrical Plan Check

- o Building Permit
 - Application for Building Permit
- o Electrical Permit
 - http://dpw.lacounty.gov/bsd/esec/index.cfm
 - Submittal Requirements
 - 1. Two complete sets of electrical plans per the Minimum Plan Submittal Requirements
 - 2. Completed Application for Electrical Permit
 - 3. Paid electrical plan check fees
 - 4. Completed <u>Electrical Plan Submittal Form</u>

STEP 5: Permit Issued

STEP 6: Install PV System
STEP 7: Request Inspections

o Inspection contact information will be listed on the permit

STEP 8: Inspector signs final permit

STEP 9: The solar customer is notified that the final inspection is approved

STEP 10: Interconnection Process

- o The County of Los Angeles will not contact Southern California Edison (SCE) to initiate the interconnection process.
- o This must be done by the contractor or customer.
- o Please see the next section for information on the SCE interconnection process.

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Southern California Edison (SCE) Interconnection Process

Southern California Edison (SCE) is the local utility for the City of Palm Desert. Upon installation of your solar system and completion of your building permit inspection from the City of Palm Desert, SCE will complete your interconnection agreement and connect your system to the electric grid so you can start generating electricity for your home or business.

Contact Information

Phone:

(626) 302-9680

Website:

http://www.sce.com/nem

INTERCONNECTION PROCESS: Southern California Edison **MAI Permitting Process** NEM AGREEMENT: INSPECTION: Submit "NEM Submit Final Electrical Agreement Inspection and Approval for Renewable from local Building Technologies" Department document INCENTIVE: **VERIFICATION:** (If applicable) SCE will approve application packet and verify building permit, then issue Submit CSI a Permission to Operate Letter. Within incentive claim 30 days you will be enrolled in the form to receive NEM program and be placed on the rebate NEM Tariff

NEM Interconnection Handbook for Installers:

http://asset.sce.com/Documents/NEM Interconnection Handbook.pdf

NEM Interconnection Checklist

http://asset.sce.com/Documents/checklist-solarwind.pdf

How do I apply for Net Energy Metering (NEM)?

NEM interconnection paperwork is typically submitted by your installer because it involves technical documentation of the proposed system.

Application checklists, required documents, and samples can be downloaded from www.sce.com/nem. Application documents may be submitted via email to customer.generation@sce.com or by fax to (626) 571-4272.

1. Submit NEM Application Package and "NEM Agreement for Renewable Technologies" document

- Submit the initial Application Packet as early as possible, long before the system is installed and the final inspection by the local building and safety department is scheduled. The Application Packet consists of:
 - NEM Interconnection Application
 - 1. Systems under 10kW
 - 2. Systems over 10kW
 - Single Line Diagram & Plot Plan
 - NEM Interconnection Agreement signed by SCE's customer

2. Submit Building Permit Job Card from local Building Department

• Submit a copy of the Final Electrical Inspection and Approval from the local Building and Safety department as soon as it is issued.

3. SCE Finalizes Application and Issue Permission to Operate letter

- Within 30 working days of receipt of all the required documents, SCE will:
- Issue a Permission to Operate (PTO) letter so you can turn on your system. Enclosed
 with the PTO letter will be an NEM tag for you to place on your meter to notify SCE
 meter technicians about the presence of your generating system and as proof of
 your permission to operate.
- Ensure your meter is capable of tracking your net generation.
- Enroll you on the Net Energy Metering rate schedule.

For regulatory and safety reasons, your generating facility must not be interconnected prior to your receipt of the PTO letter and placement of the NEM tag on your meter.

Additional Interconnection Information

The parallel operation of a self-generation unit requires interconnection with SCE's distribution system. Electric Rule 21 is a tariff that describes the interconnection, operating and metering requirements for generation facilities to be connected to a utility's distribution system, over which the California Public Utilities Commission (CPUC) has jurisdiction. Note that the posted Rule 21 may not reflect updates to the tariff that may be pending before the CPUC:

• <u>SCE Rule 21</u>

The NEM Interconnection Handbook specifies the typical minimum technical requirements to interconnect generating facilities with SCE's electric system under the Net Energy Metering (NEM) program:

• SCE's Net Energy Metering Interconnection Handbook

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