



Solar Incentive Program

Solar power is now more affordable than ever!

Los Angeles Department of Water and Power

Solar Energy for a Green LA
(800) GREEN LA www.GreenLA.com
December 2002

Plug into the Sun

Table of Contents

Solar Power Basics	3
The Solar Advantage.....	3
Photovoltaic System Basics.....	3
PV System Installation Requirements.....	4
PV System Maintenance.....	4
PV System Size	4
PV System Cost.....	5
PV System Payback Period	5
Financing.....	5
LADWP Solar Projects.....	6
LADWP Solar Incentive Program	7
Eligibility	7
Eligible Components	7
Standards and Warranties.....	7
The Incentive	8
Net-Metering.....	11
PV systems for Multi-Family Buildings	11
Tax Credits and Property Taxes	11
How to Apply for the LADWP Solar Power Incentive.....	12
The Application Process	12
Receiving Incentives from Multiple Programs	13
LADWP Solar Power Incentive Program Application Forms	14
Resources and Information.....	15
Appendix 1: General Information About Solar Systems.....	15
Appendix 2: Solar Equipment Eligible for the LADWP Incentive Program	17
Manufacturers	17
Appendix 3: Requirements for Solar System Installers.....	19
Appendix 4: VoltVIEWtech Loan Program	20
Appendix 5: Tax Information.....	21
Appendix 6: Minimum Manufacturing Requirements to Qualify for LAMC	22
Appendix 7: Application Forms	24
Form 1: Solar Incentive Program Reservation Request Form	24
Form 4: Solar Incentive Program Incentive Payment Claim Form.....	24
Form 5: Residential Service Rider-Net Energy Metering Agreement	24
Form 6: Commercial Service Rider-Net Energy Metering Agreement	24

Solar Power Basics

Solar power is used for two major purposes today: to produce electricity or heat. The LADWP Solar Power Incentive Program promotes the use of solar electric or photovoltaic (PV) systems by lowering their cost. PV systems offer several advantages: they're quiet and can be installed almost anywhere. They have no moving parts, so there's virtually no maintenance. And they produce clean, green power.

The Solar Advantage

- ❑ **Solar power does not produce pollution.**

The majority of the City of Los Angeles' electricity is now generated by burning fuels like gas and coal, or through nuclear power. These traditional methods produce air pollution, greenhouse gases, and toxic waste. A typical 2kW (2 kiloWatt, or 2,000 Watt) residential rooftop PV system can produce about 3,600 kW hours of electricity per year, or about half the average LA home's power. By substituting sun power for fossil fuels, this system will avoid the need to burn 3.7 tons of coal to produce the same amount of electricity, and will therefore prevent about 10,000 lbs. of global warming greenhouse gases from entering the atmosphere.

- ❑ **The supply of solar power is infinite.**

On the contrary, traditional fuels are finite. The world's entire oil supply, for example, is estimated to last about 30-100 more years.

- ❑ **Solar energy protects people against rising energy costs.**

Traditional fuel prices will rise as the supplies of these fuels shrink. PV systems, on the other hand, use sunlight, which is infinite and free. PV systems will also reduce air conditioning and heating costs and may help extend roof life.

- ❑ **PV systems are more reliable.**

Electricity is generated right where it's used, rather than having to travel hundreds of miles from remote power plants.

Photovoltaic System Basics

Photovoltaic (PV) systems are synonymous with solar electric systems. Solar cells, which are made of a semi-conductor material such as silicon, convert the sun's energy into direct current (DC) electricity. Cells are combined to form solar power *modules* that produce a specific number of *Watts*. Then *modules* are then combined to form *panels*. *An array is the complete PV system*. A piece of equipment called an inverter converts the DC electricity into alternating current (AC) that can be used in homes and businesses. The size of a solar system is indicated by the number of Watts, such as a 2,400 Watt system.

PV System Installation Requirements

PV systems are usually installed on roofs for maximum exposure to sunlight, but they can be installed on almost any roof or at any site that receives unobstructed sunshine during the peak hours from 9 a.m. to 6 p.m. in the summer, and from 9 a.m. to 3 p.m. in the winter. Shading is a critical issue, because even a small amount of shade can dramatically reduce (or even eliminate) the amount of electricity that is produced. An inexpensive piece of equipment called a *Solar Pathfinder* shows the sun's path and shaded areas at any installation site throughout the year, so the shaded areas can be avoided.

The *ideal* solar roof should:

- ❑ Have at least 300 square feet of unobstructed area for each 1kW (1,000 Watts) of system
- ❑ Faces south or west or both
- ❑ Receive full sunlight without shadows from 9 a.m. to 6 p.m. in the summer and 9 a.m. to 3 p.m. in winter.

PV systems can also be installed on less-than-ideal roofs, which are in fact the majority. Sites that have partial shading or face north or east are still eligible to install solar systems, but they will not get the maximum benefit from them.

Installation of a PV system requires a City of Los Angeles building permit¹. The Department of Building and Safety recommends that all systems be installed by a qualified licensed California contractor.

PV System Maintenance

The solar system owner is responsible for all maintenance of the PV system. However, there will be no or very little maintenance, as standard solar PV systems have no moving parts. Solar panels have been in use for over thirty years with no problems. Some owners use a garden hose to rinse the solar panels once or twice a year (when the panels are cool).

PV System Size

PV systems eligible for the Incentive range from 300 Watts to the number of Watts needed to supply 100% of an installation site's power. To determine the size of the PV system you need, consider your average power usage and available roof or installation space. Each square foot of installation space represents about 10 Watts.

Example

The following example shows how to determine the size of a PV system for a home with 1000 sq. feet of useable roof space. Suppose that the LADWP bill indicates that 1,500 kWh were used over 2 months.

$$1,500 \text{ kWh} / 2 \text{ months} = 750 \text{ kWh per month}$$

$$750 \text{ kWh} / 165 \text{ solar hours} = 4.54 \text{ kW}$$

Therefore, a 4.54 kW PV system will supply 100% of the home's power.

1000 feet of usable roof space x 10 Watts/square foot = 10,000 Watts = 10 kW system potential.

Under program guidelines, the largest system is one that will provide 100% of the power needs, so a 4.54 kW system would be the largest system this customer could install.

It's not necessary to install the largest possible system right away. LADWP customers can begin with a small system and increase the size gradually. Until December 31, 2010, each time an LADWP customer installs eligible solar equipment, the customer may apply for an Incentive payment, as long as that customer has not exceeded the total (cumulative) maximum Incentive payment as outlined in *The Incentive* section of this document.

PV System Cost

The cost of a PV system is determined primarily by its size. A 2 kW system costs about \$21,000-\$22,000 and can supply a 1,500-2,000 sq. ft. home with about 50% of its power, depending upon the actual energy consumption.

PV system installation costs may vary due to the slope of the roof and roofing material. Flat or slightly sloped asphalt shingle roofs are usually less expensive than Spanish tile.

PV System Payback Period

Once the PV system has been installed, there will be continuous savings, because less electricity will be purchased. Even higher long-term savings will be realized after the payback period (after the PV system has paid for itself through reduced utility bills).

The payback period depends on several factors: the cost of the PV system after the Incentive, average electricity consumption, the electricity cost, the amount of electricity produced by the solar system, and the finance charges, if any. Your PV contractor should calculate the payback for you. Or calculate the payback yourself using the website calculator (www.greenla.com/solar/payback).

Financing

- ❑ California residents and businesses can receive a 15% Solar Income Tax Credit for the cost of the PV system after all rebates.
- ❑ VoltVIEWtech, which is under contract to LADWP and works with Fannie Mae, offers renewable energy loans for homes through EfficiencyWise. (See *Appendix 4* for details)
- ❑ Commercial customers who install solar PV systems may be eligible for the 10% Energy Tax Credit and Accelerated Depreciation. Check with your accountant for details. (See *Appendix 5* for details)

LADWP Solar Projects

The Los Angeles Department of Water and Power (LADWP) designs, constructs and operates solar photovoltaic systems on its facilities and municipal buildings throughout the City of Los Angeles, including libraries, community centers, municipal office buildings and multipurpose buildings. Electricity generated from these systems is used in the Green Power for a Green LA Program. One to 1.5 megawatts of PV generation capacity are scheduled for installation each year for the next five years.

Projects completed to date include:

- ❑ **LA Convention Center**

Phase 1 of the project is a 150 kW system on the South Hall Canopy. Phase 2 is a 250 kW car shade on the roof of the Cherry Street Parking Garage. The system produces 800,000 kWh of electricity per year, which is enough to power over 100 homes.

- ❑ **LADWP John Ferraro Office Building Vehicle Shade**

The 150 kW system located at the LADWP downtown General Office Building is a multipurpose structure: it generates electricity, provides shade for cars, and houses the electric LAX shuttle van quick-charger. The system produces 275,000 kWh of electricity per year, which is enough to power nearly 40 homes. The structure was designed by a world-renowned LADWP staff architect and has been the backdrop for television commercials and print advertising.

- ❑ **Woodbury University**

A 10 kW patio shade was installed on the LA portion of the campus in March 1999. Woodbury architecture students designed a 4 kW PV system for a Hollywood Park & Community Garden.

- ❑ **LADWP Main Street Maintenance Facility**

This 30's-era industrial building was retrofitted with a 16 kW solar photovoltaic system. The building's southwest-facing saw-toothed skylights provided a natural support for the solar panels. The system produces 32,000 kWh of electricity/year.

- ❑ **Westchester Municipal Building**

This municipal office building was retrofitted with a 5 kW system, which produces 10,000 kWh of electricity annually. A real-time solar meter is located in the lobby of the building located at the corner of Lincoln Boulevard and Manchester Avenue.

LADWP Solar Incentive Program

Many technologies, including PV systems, are often more expensive than their traditional counterparts and will be so until demand for them increases. The LADWP Incentive is designed to tackle this issue by lowering the cost *now* in order to promote the use of solar power in Los Angeles.

Eligibility

All LADWP customers, residential and commercial, are eligible for the Incentive. Lifeline and low-income customers must switch to standard residential rates in order to participate.

Eligible Components

System components that *generate* or *transfer* power are **eligible** for the incentive:

- ❑ PV (photovoltaic) cells
- ❑ Modules
- ❑ Mounting or tracking structures
- ❑ Wiring
- ❑ Inverters (including those compatible with battery-backed OV systems)
- ❑ Foundation (for free-standing systems)
- ❑ Utility-required interconnection equipment

Specific PV equipment that *stores* electricity (batteries and related items) and solar *thermal* systems used for water heaters and swimming pools are **not eligible** for the Incentive.

Standards and Warranties

To be eligible for the Incentive, PV equipment must be certified, UL-approved, meet national standards and have a full five-year warranty. LADWP will verify that the equipment meets the existing standards prior to issuing an Incentive payment.

Standards

- ❑ All equipment should meet existing national standards, such as Minimum PV USA Test Conditions (PTC) module rating.
- ❑ All flat plate modules must be certified by a nationally recognized testing lab as meeting the requirements of the Underwriters Laboratory (UL) Standard 1703.
- ❑ All inverters must be certified by a nationally recognized testing lab for safe operation. When UL Standard 1741 is adopted, all inverters must be certified as meeting this standard.

Concentrator manufacturers must provide evidence to the California Energy Commission (CEC) of one year of reliable operation for their equipment.

The warranty must provide coverage against:

- ❑ The breakdown of all the system components that are eligible for the Incentive.
- ❑ Degradation in the electrical output of over 10% from the original output rating.

The Incentive

The Incentive Program awards a specific dollar amount for each Watt of modular-based residential and commercial PV systems, and for residential Building Integrated PV systems (BIPV). The dollar amount paid per Watt decreases over the life of this program.

The Incentive for commercial BIPV systems is not calculated on a per Watt basis.

Incentive Calculation: Modular PV Systems

Customers who purchase PV equipment manufactured by companies that have PV manufacturing facilities inside the City of Los Angeles will receive a bonus Incentive, or the LA Manufacturing Credit (LAMC). At this time, **ALL** UL-listed Shell Solar PV equipment, not just its locally manufactured earthsafe™ equipment, is eligible for the LAMC. In addition, PowerLight Corporation's PowerGuard® electric rooftop systems, which are made with locally manufactured Shell PV cells, qualify for the LAMC.

Incentive Payment/Watt – Years 3-10

Effective 9/17/02

Program Year	3	4	5	6	7	8	9	10
Dates	1/1/02-12/31/03	1/1/04-12/31/04	1/1/05-12/31/05	1/1/06-12/31/06	1/1/07-12/31/07	1/1/08-12/31/08	1/1/09-12/31/09	1/1/10-12/31/10
Base Incentive/Watt*+	\$4.50	\$3.50	\$3.50	\$3.00	\$3.00	\$2.50	\$2.50	\$2.00
Bonus Incentive (LAMC)/Watt*	\$1.50	\$1.50	\$1.50	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Total Incentive (Base + LAMC)	\$6.00	\$5.00	\$5.00	\$4.00	\$4.00	\$3.50	\$3.50	\$3.00

Base Incentive

*All qualified PV equipment receives the Base Incentive. In general, equipment approved by the California Energy Commission (CEC) is eligible for the LADWP Solar Power Incentive.

+ The Incentive payment is calculated by multiplying the number of modules in the customer's PV system x the PTC rating/module x the appropriate Incentive/Watt.

Bonus incentive: LA Manufacturing Credit (LAMC)

Customers who purchase PV equipment from a company with a Los Angeles PV manufacturing facility also receive a bonus Incentive (LAMC or LA Manufacturing Credit). At this writing, **ALL UL-listed Shell/Siemens PV equipment, not just the locally manufactured earthsafe™ equipment, qualifies for the LAMC. PowerLight Corporation's PowerGuard® electric rooftop systems are also eligible for the bonus LAMC. Example: A \$22

Incentive Cap for Modular Commercial Systems

Commercial sites can receive a cumulative total Incentive payment of \$2 million over the 10 years of the program. The Incentive for modular PV systems cannot exceed 85% of the system cost before the Incentive.

Incentive Cap for Modular Residential Systems

The total cumulative maximum Incentive for a residential site is \$60,000. The Incentive for modular PV systems cannot exceed 85% of the system cost before the Incentive.

Example 1

2.8 kW Modular PV system from a company that does NOT have a PV manufacturing facility in Los Angeles.

Total System Cost	\$22,000.00
Maximum Incentive is 85% of total system cost, or \$18,700	
System comprised of twenty (20) BP brand 140-Watt modules	
PTC rating is 122.1 Watts/module	
20 x 122.1 Watts = total output of 2,442 Watts	
2,442 Watts x \$4.50/Watt Incentive = total Incentive payment of	<u>-\$10,989.00</u>
Final system cost	\$11,011.00

Example 2

2.85 kW Modular PV system from Shell Solar, which DOES have a PV factory in Los Angeles

Total System Cost	\$22,000.00
Maximum Incentive is 85% of total system cost, or \$18,700	
System comprised of thirty eight (38) Shell brand 75-Watt modules	
PTC rating is 67.5 Watts/module	
38 x 67.5 Watts = total output of 2,565 Watts	
2,565 Watts x \$6/Watt Incentive = total Incentive payment of	<u>-\$15,390</u>
Final system cost	\$ 6,610

Building Integrated (BIPV) Systems

Building Integrated PV systems (BIPV) are part of the building, rather than modules that are added on. BIPV examples include roofing, skylights, building facades, louvers and more.

Eligibility

Any type of PV technology, regardless of where it was manufactured, is eligible for the BIPV incentive, provided that it:

- ❑ meets the standards for quality and performance as determined by LADWP
- ❑ bears applicable Underwriters Laboratories (UL) rating (s) or acceptance and approval of the Los Angeles Department of Building and Safety (LADBS) tests
- ❑ meets the current applicable Los Angeles Building Code (LABC), and Uniform Building Code (UBC), and local ordinances as determined by the LADBS.

Minimum Usage

The total surface of the Photovoltaic material applied as a BIPV installation must constitute at least 70% of the total system surface in order to be eligible to qualify as true BIPV.

Residential BIPV Incentive Payments

Effective December 2002

Program Year	3	4	5	6	7	8	9	10
Dates	1/1/02-12/31/03	1/1/04-12/31/04	1/1/05-12/31/05	1/1/06-12/31/06	1/1/07-12/31/07	1/1/08-12/31/08	1/1/09-12/31/09	1/1/10-12/31/10
BIPV Incentive+	\$6.00	\$5.00	\$5.00	\$4.00	\$4.00	\$3.50	\$3.50	\$3.00

+ The residential BIPV Incentive payment is calculated by multiplying the total PTC Watt output of the customer's BIPV system x the current BIPV Incentive/Watt.

The maximum cumulative residential BIPV Incentive for systems using equipment manufactured OUTSIDE the City of LA is \$50,000/site or up to 75% of the total system cost, whichever is less.

The maximum cumulative residential BIPV Incentive for systems using equipment manufactured WITHIN the City of LA is \$60,000/site or up to 85% of the total system cost, whichever is less.

Commercial BIPV Incentives

The Incentive for commercial BIPV systems is not calculated on a per Watt basis.

The maximum cumulative Incentive for commercial BIPV systems using equipment manufactured OUTSIDE the City of Los Angeles is \$1,000,000 or up to 75% of the system's total cost, whichever is less.

The maximum cumulative Incentive for commercial systems using equipment manufactured WITHIN the City of Los Angeles is \$2,000,000 or up to 85% of the total system cost, whichever is less).

Net-Metering

All Solar Power Incentive Program participants must remain connected to LADWP power LADWP. If a home or business uses more electricity than the PV panels are producing, the balance of the electricity will come from the power lines. If the household uses less electricity than the PV panels are producing, the excess power goes back into the power lines to service other customers. The LADWP meter runs *backwards* if *all* electricity is supplied by the solar PV system, and *forward* when *all* electricity is provided by the LADWP. Typically, a PV system only supplies part of the power, with the balance coming from the LADWP. The meter will run forward at the rate of LADWP's delivery of power.

The meter measures the net energy flow between LADWP and a site. The customer is billed only for those times when the meter runs forward. It is very unlikely that a PV system will have produced excess power at the conclusion of a billing cycle. However, if a site does generate excess energy, the site will receive a credit that will be carried forward until used on a future bill. The credit must be used before LADWP service at that site is terminated or it will be lost.

Note: Residential customers cannot *sell* their excess electricity to LADWP.

Under Rate Schedule A-1, A-2 and A-3, and through December 31, 2002, net metering is allowed and will remain on the current rate for customers with PV systems up to and including 1 megawatt (1 million watts) in size. Those PV systems that generate excess power will receive credit at the current retail rate (not at the avoided cost rate, or PG-3 rate).

For more information about net metering, large commercial customers should consult with your LADWP account representative. Small commercial customers should contact the LADWP Customer Call Center at 800-Dial DWP (800-342-5397.)

Note: Standard utility meters and Time-of-Use (TOU) Meters are compatible with net metering.

PV systems for Multi-Family Buildings

In multi-family buildings, there is usually one meter for common lighting (hallways, outdoor areas, garages, laundry rooms), which is usually billed at a commercial rate. The property owner can either install a system for these common uses or install individual systems for each condo or apartment that would be wired to that unit's side of the meter. A master sub-meter arrangement, where the building owner in effect sells power to tenants, is NOT allowed. LADWP cannot allocate credits between or among different buildings or multiple accounts.

Tax Credits and Property Taxes

Commercial customers who install solar PV systems may be eligible for the 10% Energy Tax Credit and Accelerated Depreciation. Check with your accountant for details.

PV systems installed from 1999-2006 will NOT be subject to property taxes. (Revenue & Taxation Code, section 73)

How to Apply for the LADWP Solar Power Incentive

The Application Process

- ❑ Hire a contractor who can evaluate your property and can design and install a PV system.
- ❑ Reserve an Incentive payment:

For PV systems over 10 kW in size and for Building-Integrated PV systems, Incentive payment MUST be reserved and system design plans MUST be submitted before the system has been installed.

To reserve an Incentive payment, you and your contractor have to complete and sign an *Incentive Reservation Form*. In return, LADWP will issue a *Reservation Confirmation Form*.

A reservation is valid for 18 months if the PV system is over 10 kW in size, for new construction or for Building-Integrated (BIPV) systems. For all other systems, the reservation is valid for 12 months. If a PV system is not installed by the expiration date, you must reapply for an Incentive payment, with no guarantee that funds will be available.

After receiving the Confirmation Form, your contractor set an appointment with the appropriate LADWP Electric Service Representative (ESR) to determine the location for the system disconnect switch.

- ❑ After the PV system is installed, have the Department of Building and Safety (DBS) inspect it to insure code compliance.
- ❑ After the DBS inspection, apply for (claim) the Incentive by submitting the following: *Incentive Claim Form* accompanied by all the documents listed on it and by a building permit with the final inspection "sign off" form from DBS.
- ❑ After receiving the *Incentive Claim Form*, the LADWP will inspect the system to verify the use of approved solar equipment. If the installed system is of different size or type than was described on the *Incentive Reservation* or *Claim* forms, the LADWP will recalculate the Incentive and a new *Incentive Claim Form* will be required. A new meter, which indicates the presence of a PV system, will be ordered and installed. This process takes about 3-4 weeks. Until the new meter is installed, the PV system will be padlocked and will not produce electricity for the customer.
- ❑ The LADWP issues the Incentive payment to the customer, contractor/installer, or manufacturer, as requested on the Claim Form. 1099 Forms for the amount of the Incentive will be issued to the Incentive payment recipients. Incentive checks are usually issued within 2-3 weeks after the PV system is approved and all required paperwork has been submitted.

Note: If all Incentive funds are not reserved or used in a given year, the LADWP reserves the right to use these funds to install solar PV systems on Department and City of Los Angeles-owned buildings

The LADWP Solar Incentive program does NOT:

- ❑ Inspect homes or buildings to determine if they are suitable for solar power systems.

- ❑ Evaluate solar system plans except for those that are required: systems 10 kW and larger, and BIPV (Building Integrated systems).
- ❑ Design, manufacture, install, modify, repair or remove solar systems for any customer (except for PV systems that were installed under the LADWP Solar Hosting Program, which has been discontinued).
- ❑ Issue an Incentive payment for solar systems that were purchased or installed before Sept. 1, 2000.
- ❑ Recommend or sell solar equipment, retailers or contractors/installers.

Receiving Incentives from Multiple Programs

The LADWP Incentive can be used in conjunction with other PV incentives, rebates, or discounts, BUT the amount of these discounts must be subtracted from the cost of the solar PV system *before* the LADWP Incentive payment is applied.

The only exception to receiving rebates from more than one source is the current LADWP-Southern California Gas Company Dual PV Rebate Program.

The LADWP-Southern California Gas Company Dual PV Incentive Program

This program is for companies that are customers of LADWP and The Gas Company and that install PV systems 30 kW and larger. The program will be offered until The Gas Company has exhausted its \$14 million in PV Incentives.

How It Works

1. Apply to LADWP using the standard Incentive Reservation Request Form (Form 1). Supply the required (standard) documents (listed on Form 1).
2. Apply to The Gas Company at the same time-using Gas Company paperwork. Visit socialgas.com, then see "Rebate information-business," then "Self-Generation Incentive Program for complete details."

Eligibility requirements-The Gas Company

- Applicant must be a customer of the Gas Company.
- Self-generation equipment must be connected to the grid and installed on the customer's side of the utility meter.
- Applicant must install new, permanent, and eligible self-generation equipment. This excludes demonstration units.
- Self-generation equipment must offset a portion, if not all, of the facility electric load. Units used solely as backup generation or intended to wheel electricity are not eligible.
- Applicants electric load cannot be on interruptible rate schedules (such as SCE I-6) or load management programs.

How to Apply to The Gas Company

Step 1: Check the latest version of the Self-Generation Incentive Program Handbook as well as any applicable Interim Changes to make sure you meet all the eligibility requirements

Step 2: Collect the following information (for a more specific explanation of the information required, use our Reservation Checklist (MS Word .doc file, 25 KB)) :

Eligible Project Costs - a Project Cost Spreadsheet has been provided to help estimate eligible project costs.

System Description - a brief description of the electric-generation project and the facility it will serve - including manufacturer specifications for the electric generation equipment.

Proof of Utility Service - demonstrates connection to the grid (a copy of your last utility bill should suffice).

System Sizing Calculations - confirms that participating self-generation systems will not exceed the facility peak electrical demand.

Step 3: Print and fill out the Reservation Request Form (don't forget to sign it)

Step 4: Send the signed Reservation Request Form and additional documentation to the following address:

Self-Generation Incentive Program Administrator
The Gas Company
555 West Fifth Street GT22H4
Los Angeles, CA 90013
Fax: (213) 244-8222

The Program Administrator will review the form and supporting documentation for completeness and accuracy, then send you a letter confirming your Reservation and explaining the next steps.

Questions? Please call Mr. Anthony Prietto at (213) 244-3679

LADWP Solar Power Incentive Program Application Forms

You can find all Incentive forms in *Appendix 7* of this document or your contractor can supply them to you. You can also request the forms by calling LADWP at (800) GREENLA or download them from www.GreenLA.com.

Resources and Information

Appendix 1: General Information About Solar Systems

State

- ❑ **California Energy Commission (CEC)**
Emerging Renewables Buydown Program
1516 Ninth Street, MS-45
Sacramento, CA 95814
Tel (800) 555-7794 in California
Tel (916) 654-4058 (outside CA)
www.consumerenergycenter.com
- ❑ **California State License Board**
Tel (800) 321-CSLB
www.cslb.ca.gov
- ❑ **League of California Homeowners**
Tel (800) 692-HOME
www.homeowners.org
- ❑ **California Solar Center**
c/o The Rarus Institute
1535 Center Ave.
Martinez, CA 94553
Tel (925) 370-7262
www.californiasolarcenter.org
- ❑ **California Solar Energy Industries Association (CALSeia)**
2391 Arden Way
Sacramento, CA 95825
Tel (800) 225-7799 / (916) 649-9858
<http://www.calseia.org>

National

- ❑ **U.S. Department of Energy**
Energy Efficiency and Renewable Energy Network
1617 Cole Boulevard
Golden, CO 80401-3393
www.eren.doe.gov
- ❑ **American Solar Energy Society**
2400 Central Avenue
Boulder, CO 80301
Tel (303) 443-3130
<http://www.ases.org>

- ❑ **Center for Energy and Environmental Studies (Princeton University)**
PO BOX CN 5263
Princeton, NJ 08544-5263
Tel (609) 258-5445
www.princeton.edu/~cees
- ❑ **Center for Renewable Energy & Sustainable Technology**
<http://solstice.crest.org>
- ❑ **Solar Energy Industries Association**
122 C Street, N.W., 4th Floor
Washington, DC 20001
Tel (202) 383-2600
<http://www.seia.org/>
- ❑ **Solar Energy Research and Education Foundation**
122 C Street, NW Suite 400
Washington, DC 20001
<http://www.serefonline.org/>

International

- ❑ **International Solar Energy Society**
Villa Tannheim
Wiesentalstr. 50
79115 Freiburg, Germany
Tel (+49) 761-459060

U.S. Headquarters:
American Solar Energy Society (ASES)
2400 Central Avenue, Suite G-1
Tel (303) 443-3130
www.ises.org

Appendix 2: Solar Equipment Eligible for the LADWP Incentive Program

All qualified PV equipment is eligible for the LADWP Solar Power Incentive Program. In general, equipment that is UL-listed and approved by the California Energy Center (CEC) is eligible.

Manufacturers

ASTRO POWER

5036 Commercial Circle, Suite B
Concord, CA 94520
Tel (800) 800-8727
Fax (925) 288-0404
Website www.astropower.com

BP SOLAR INC.

For commercial projects over 100 kW
2300 N. Watney Way
Fairfield, CA 94533
Tel (707) 428-7800
Fax (707) 428-7878
Email moorecm@bp.com
Website www.bpsolar.com

POWERLIGHT CORPORATION

(manufacturer, installer of commercially-sized PV systems 50 kW+)
2954 San Pablo Avenue
Berkeley, CA 94702
Tel 877-PV-SOLAR
Tel (510) 540-0550
Fax (510) 540-0552
Email info@powerlight.com
Website www.powerlight.com

SHELL SOLAR (formerly SIEMENS)

10 Watts – Multi MegaWatts
4560 Adohr Lane, PO Box 6032
Camarillo, CA 93011
Tel (805) 482-6800
Fax (805) 388-6395
Email solarsalesusa@shell.com
Website www.Shell.com

ATLANTIS ENERGY, INC.

4610 Northgate Blvd., Suite 150
Sacramento, CA 95834
Tel (916) 920-9500
Fax (916) 927-1697
Email jomo13@atlantisenergy.com
Website www.atlantisenergy.com

KYOCERA SOLAR, INC.

21250 Califa St. Suite 111
Woodland Hills, CA 91367
Tel (818) 932-9480
Fax (818) 932-9481
Website www.kyocerasolar.com

SHARP ELECTRONICS CORPORATION

5901 Bolsa Avenue
Huntington Beach, CA 92647
Tel (714) 903-4880
Fax (714) 903-4858
Email RUDINA@SHARPSEC.COM
Website www.sharpelectronics.com

UNI-SOLAR (BEKAERT ECD SOLAR SYSTEMS)

403 Las Posas Road
San Marcos, CA 92069
Tel (800) 397-2083
Fax (760) 744-3660
Email gdelawari@uni-solar.com
Website www.uni-solar.com

Distributors & Installers

ALTERNATIVE SOLAR PRODUCTS

Distributor for BP Solar, Inc. systems
under 50 kW
28441 Rancho California Road, Suite U
Temecula, CA 92590
Tel (909) 308-2366
Fax (909) 694-1458
Email Mark@alternativesolar.com
Website www.alternativesolar.com

GO SOLAR COMPANY

12439 Magnolia Blvd. PMB 132
North Hollywood, CA 91607
Tel (818) 566-6870
Fax (818) 566-6879
Email solarexpert@solarexpert.com
Website www.solarexpert.com

SCHOTT APPLIED POWER

(distributor)
1447 Summit Avenue
Cardiff, CA 92007
Tel (858) 483-8982
Cell (858) 722-3553
Fax (208) 977-6068
Email Sean.Capra@US.Schott.com
Website www.schottappliedpower.com

SOLAR DEPOT

Distributor for BP Solar, Inc. systems under 50 kW
61 Paul Drive
San Rafael, CA 94903
Tel (415) 499-1333
Fax (415) 499-0316
Website www.solardepot.com

SOLAR ELECTRICAL SYSTEMS

(distributor/installer)
2746 West Appalachian Court
Westlake Village, CA 91362
Tel (805) 373-9433
Fax (805) 497-7121
Website www.solarelectricalsystems.com

SUN UTILITY NETWORK, INC.

(distributor/installer)
626 Wilshire Boulevard #711
Los Angeles, CA 90017
Tel (800) 822-7652
Tel (213) 623-9797
Fax (213) 623-2041
Email info@sunutility.com

TALLEY COMMUNICATIONS CORP.

(distributor)
12976 Sandoval Street
Santa Fe Springs, Ca. 90670
Tel (800) 949-7079
Tel (562) 906-8000
Fax (562) 906-8080 FAX
Email sales@talleycom.com
Website www.talleycom.com

3 PHASES SOLAR

(distributor/installer)
2100 Sepulveda Blvd., #15
Manhattan Beach, CA 90266
Tel (310) 545-8798
Fax (310) 545-4218
Email solar@3phases.com
Website www.3phases.com

You can also visit California Energy Commission's website at www.consumerenergycenter.com
or call (800) 555-7794 for additional equipment information.

Appendix 3: Requirements for Solar System Installers

Per State law, four contractor classifications are eligible to install Solar Photovoltaic Systems: Electrical (C10), Engineering (A), Solar Specialty (C46) and General Building (B). Other businesses, such as heating and air conditioning contractors (C20 license) and roofing companies (C39 license) may install solar PV systems ONLY IF they use licensed electricians for the AC wiring and the battery portion (if any) of the installation.

Some PV equipment manufacturers sell their equipment only to those with the appropriate license, wholesale distributors or installers that they have trained.

For example, only installers who have received PV installation training from Shell Solar (formerly Siemens Solar) and/or LADWP and/or the California Energy Commission (CEC)-Endecon Engineering are eligible to install Shell PV equipment. Neither Shell, nor LADWP, nor the CEC, nor Endecon Engineering make any warranties, representations, or guarantees regarding any work that these installers may perform/provide.

For an updated list of solar equipment installers, visit www.greenla.com/solar/installers. A list of qualified solar contractors can also be obtained from the California Solar Energy Industry Association at (800) 225-7799 or from the "members list" at www.calseia.org.

PV Installation Training

Installers that have received training from Shell Solar, LADWP, and/or LADWP-CEC-Endecon Engineering are listed on the LADWP website, GreenLA.com (see "solar energy" then "installers").

Shell

Shell offers one-day training consisting of an equipment overview (lecture) and sales assistance. Installers that have received this training are listed on the above website.

LADWP

LADWP offers a one-day free training that covers equipment, system design basics, site issues and installation procedures that meet the National Electrical Code and LADWP installation requirements. The training consists of lecture and hands-on installation practice. Installers that have received this training are listed in boldface on the above website.

LADWP-CEC-Endecon Engineering

In conjunction with Endecon Engineering and/or the CEC (California Energy Commission), LADWP offers three-day paid training that covers equipment, system design basics, site issues and installation procedures that meet the National Electrical Code and LADWP installation requirements. The training consists of lecture and hands-on installation practice. Installers that have received this training are listed in large, bold-faced type on the above website.

Appendix 4: VoltVIEWtech Loan Program

VoltVIEWtech, through a contract with LADWP, offers Fannie Mae Energy Loans to LADWP residential customers. Fannie Mae is partnering with utilities to make unsecured consumer loans to homeowners for the purpose of installing residential energy improvements, including solar PV systems, energy efficient windows and more. The benefits to homeowners include unsecured financing, quick approval process, a reduction in energy costs, home improvement, and increased home value. Homeowners must use contractors that have been approved by the independent League of California Homeowners (LCH).

Eligible properties: owner-occupied residential real property, 1-2 unit dwellings.

Term: 1-10 years

Loan Amount: \$1-\$20,000

Loan Rate: Set periodically based on market conditions, but fixed for the term of loan.

Borrower: FICO score of 640 and above

Appendix 5: Tax Information

California Solar Income Tax Credit

California offers residents and businesses a solar income tax credit of 15 percent of the purchase cost of \$4.50 per rated Watt (whichever is less) for PV systems up to 200 kW in size for tax years 2002-2003. For more information and tax Form 2508, visit:

www.consumerenergycenter.org/renewable/tax_credit.html

Property Taxes

PV systems installed from 1999-2006 will not be subject to property taxes (Revenue & Taxation Code, Section 73).

Energy Tax Credit

Commercial customers that install PV systems may be eligible for the 10% Energy Tax Credit and Accelerated Depreciation. Check with your accountant for details.

Appendix 6: Minimum Manufacturing Requirements to Qualify for LAMC

Photovoltaic modules qualifying for the LAMC shall be manufactured within the limits of the City of Los Angeles and shall be certified to the Department by the manufacturer as locally manufactured before any LAMC payment will be made. To qualify for the LAMC and be considered as locally manufactured, a minimum of 50% of the components of the finished photovoltaic modules or qualifying equipment shall have been manufactured and/or assembled inside the City of Los Angeles. The LADWP retains sole discretion to determine if a process/equipment qualifies for the LAMC. All material manufactured must meet codes and standards required for installation in Los Angeles. The Department reserves the right to audit the records and inspect the premises of manufacturers requesting the LAMC.

Alternative designs may be considered and reviewed by the Department's engineering staff. The Department retains the final determination whether such alternative technologies are acceptable under the scope of this program

Modules:

Crystalline photovoltaic modules shall require the crystalline cells to be laminated between glass or other appropriate light transmitting material and a backsheet material. Frames or other method of structural connection shall be attached. Electrical connection from cell groups to exterior junction box shall also be attached.

Thin film or other similar photovoltaic technology material shall be laminated between a light transmitting material and a ridged or flexible backsheet material. Electrical connection from cell groups to exterior junction box shall also be attached. Bolting modules manufactured outside Los Angeles to rails and inter-module wiring, commonly called "panelization" shall not qualify.

Building Integrated Material:

Building Integrated Photovoltaic Material shall meet the same manufacturing criteria as modules as stated above.

LAMC Module Substitution

Photovoltaic modules may be substituted and qualify for the LAMC provided the following conditions are met:

A photovoltaic module manufacturer may substitute photovoltaic modules that were not manufactured in Los Angeles before the manufacturer qualifies for the LAMC. The manufacturer must notify the Department in writing of intent to manufacture photovoltaic modules qualifying for the LAMC prior to requesting module substitution.

In order to provide Department customers access to a greater selection of photovoltaic modules, Los Angeles manufacturers qualifying for the LAMC may substitute photovoltaic modules manufactured outside Los Angeles for modules qualifying for the LAMC.

To receive the LAMC for substituted photovoltaic modules, a Request for Module Substitution shall be submitted with The Buydown Reservation requesting the Maximum Buydown Incentive plus the Maximum LAMC. The LAMC will be paid after all requirements for the Buydown Payment are met and the manufacturer has manufactured an equal or

greater quantity of photovoltaic modules in watts that qualify for the LAMC. Modules used, as credit for the substituted modules shall not be eligible for the LAMC. The manufacturer shall submit to the Department a monthly-itemized report of modules manufactured in Los Angeles and modules substituted.

If the manufacturer fails to manufacture an equivalent or greater quantity of photovoltaic module watts substituted before the Program expiration the manufacturer, retailer or installer forfeits all rights to the substituted LAMC. The manufacturer, retailer or installer shall not seek to recover the forfeited LAMC amount from the Department customer.

All photovoltaic manufacturers that locate inside the City of Los Angeles after Board Approval of the requested revisions shall have a maximum of six (6) months from the date a manufacturer ships a PV panel or BIPV equipment manufactured outside the City of Los Angeles to an LADWP customer, to begin manufacturing PV panels or BIPV equipment inside the City of Los Angeles, in order to qualify to continue to receive the LAMC.

Appendix 7: Application Forms

The following forms are required to apply for the LADWP Solar Incentive:

Form 1: Solar Incentive Program Reservation Request Form

To be completed by the LADWP Customer and PV Contractor/Installer

Note: Form 2 is no longer used

Note: Form 3 will be sent to the customer by LADWP

Form 4: Solar Incentive Program Incentive Payment Claim Form

To be completed by the LADWP Customer and PV System Contractor/Installer

Form 5: Residential Service Rider-Net Energy Metering Agreement

To be completed by the LADWP Customer/Property Owner/PV System Buyer

Two original, signed copies must be submitted

Form 6: Commercial Service Rider-Net Energy Metering Agreement

To be completed by the LADWP Customer/Property Owner/PV System Buyer

Two original, signed copies must be submitted



Los Angeles Department of Water and Power SOLAR INCENTIVE PROGRAM RESERVATION REQUEST FORM INSTRUCTIONS

**TO BE COMPLETED BY
THE LADWP CUSTOMER AND PV RETAILER / DISTRIBUTOR / MANUFACTURER OR PV CONTRACTOR / INSTALLER**

1. Reservations are good for twelve months, until the Solar Incentive Program expires (on 12/31/10), or all funds have been reserved and/or expended, whichever comes first.
2. A Reservation Confirmation Form will be issued by LADWP if funds are available.
3. If the PV system has not been installed by the Reservation expiration date, the Incentive Reservation will expire. Another Reservation Request Form may be submitted, with no guarantee that funds will be available.
4. 18 month reservations are allowed for new construction, building-integrated systems (BIPV) and systems over 10,000 Watts.
5. LADWP customers who intend to install a solar PV system that is 10kW in size or larger **MUST** submit a Reservation Request Form **AND** a copy of the system plan.

HOW TO RESERVE A SOLAR INCENTIVE PAYMENT

1. **COMPLETE and sign the Solar Reservation Request Form-** (Form 1, Side 2). Both the LADWP Customer **and** PV Retailer/Manufacturer/Distributor or the PV Contractor/Installer must sign this form. (Keep a copy for your records).
2. **ATTACH the following documents to the Reservation Request Form:**
 - a. **Copy of a Purchase Order, Letter of Intent, or equivalent**, from the solar contractor/installer, that describes the solar PV system that will be purchased. This document should show the size of the system (Watts), total system price (before the Incentive), and the address where the system will be installed. (Keep original document).
 - b. **Copy of the most recent LADWP bill** that shows electrical service at the location where the solar PV system will be installed.
 - c. **no signed originals of the Agreement to Implement Subsection S (Form 5 is for residences, Form 6 is for commercial customers).**
 - d. **Shading analysis based on solar pathfinder or equivalent.**
 - e. **Copy of plans for PV systems that are 10kW in size or larger.**
3. **MAIL the completed Reservation Request Form (Form 1, Side 2) with two signed original copies of Form 5 or 6 and all required documents (items a-d, and e, if required) to:**

Solar Incentive Program
LADWP
111 N. Hope St., Room 1021
Los Angeles, CA 90012

4. **Upon receipt of the Reservation Confirmation Form from LADWP, contact the appropriate Electric Service Representative (ESR) for PV installation area.**

Please note that LADWP Solar Incentive Program Reservations are made in the name of the LADWP Customer, and that this person/entity can change or cancel the LADWP Solar Incentive Program Reservation at any time.

Reservations cannot be made until all the required documents have been submitted.



Los Angeles Department of Water and Power SOLAR INCENTIVE PROGRAM RESERVATION REQUEST FORM

Note: Form 2 is no longer in use

PV RETAILER / DISTRIBUTOR / MANUFACTURER (Circle Which)			PV CONTRACTOR / INSTALLER (If Different from Left)		
Company Name			Company Name		
Contact Person			Contact Person		
Retailer/Distributor/Manufacturer's Taxpayer ID Number			Contractor/Installer's Taxpayer ID Number		
Address			Address		
City ()	State ()	Zip	City ()	State ()	Zip
Business Phone	Fax		Business Phone	Fax	

LADWP CUSTOMER

Company Name (for commercial systems)	Contact Person	
Address		
City ()	State ()	Zip
Business Phone	Fax	Tax ID Number (for commercial systems) or Social Security Number (for residential systems)

SOLAR PV SYSTEM INFORMATION

PV Module Manufacturer
Module Manufacturer Number
Number of Modules
Watts
PTC Power Rating/Module
Watts
Total System Output (# of modules x PTC power rating per module)
Inverter Manufacturer
Inverter Model Number
%
Peak Inverter Efficiency

SOLAR PV SYSTEM INFORMATION

Cost of system BEFORE LADWP Incentive	\$ _____
Subtract any non-LADWP Incentives*	- \$ _____
= Total Eligible PV System Cost	\$ _____
Incentive Request for non-locally manufactured PV equipment: \$4.50/Watt x total system output (see left).**	\$ _____
Incentive Request for locally-manufactured PV equipment (any/all Shell [Siemens] UL-listed PV equipment & PowerLight's PowerGuard solar electric roof top systems: \$6.00/Watt x total system output (see left).**	\$ _____

* Source of non-LADWP Incentives:
** Incentive for modular PV systems cannot exceed 85% of total system cost before the Incentive.

Note: LADWP Solar Incentive Program Reservations are made in the name of the LADWP Customer; this person or entity can change or cancel the LADWP Solar Incentive Reservation at any time.

KiloWatt Hours
The Department will determine the total number of kiloWatt hours used the previous 12 months at address where the PV system will be installed.

Declaration
The undersigned declare under penalty of perjury that: 1) the information provided in this form is true and correct to the best of my knowledge; 2) that the above-described solar PV generating system is intended to offset part or all of the Customer's electrical needs at the site of the installation; 3) that the site of the installation is located within the service territory of the Los Angeles Department of Water & Power; and 4) that the Customer has received a copy of this completed form.

PV RETAILER/DISTRIBUTOR/MANUFACTURER, CONTRACTOR/INSTALLER (Circle Which)	LADWP CUSTOMER
Signature	Signature
Print Name	Print Name
Date	Date

See (Form 1, Side 1) for list of documents that must be submitted with this form. Keep a copy of this form for your records.



Los Angeles Department of Water and Power
SOLAR INCENTIVE PROGRAM
INCENTIVE PAYMENT CLAIM FORM INSTRUCTIONS

Note: Form 3 will be sent by LADWP. Form 3 is not included in this packet

**TO BE COMPLETED BY
THE LADWP CUSTOMER AND PV RETAILER / DISTRIBUTOR / MANUFACTURER OR PV CONTRACTOR / INSTALLER**

A Solar Incentive payment may be requested after the solar PV system has been installed and has been inspected and approved by the LA Department of Building and Safety and LADWP ESR and Solar Inspector.

HOW TO REQUEST THE INCENTIVE PAYMENT

1. **COMPLETE** and sign the Incentive Claim Form - (Form 4, side 2). Both the LADWP Customer AND the solar PV Retailer/Distributor/Manufacturer or the PV contractor/installer must sign this form. (Keep a copy for your records)
2. **ATTACH** the following documents to this Incentive Claim form:
 - a. **Approved copy of the final building permit** (Keep original for your records)
 - b. **Copy of final sales invoice** (or equivalent) that shows the actual price paid for the installed solar PV system (Keep original for your records)
 - c. **For all Shell/Siemens modules, provide all serial numbers from panels.**
3. **MAIL** the completed Incentive Claim Form (Form 4, Side 2) and all of the above documents (items a-b and c, if required) to:

Solar Incentive Program
LADWP
111 N. Hope St., Room 1021
Los Angeles, CA 90012

**PROCESSING OF CLAIMS/INCENTIVE FORM WILL NOT BEGIN UNTIL
ALL REQUIRED DOCUMENTS HAVE BEEN SUBMITTED!**



Los Angeles Department of Water and Power
SOLAR INCENTIVE PROGRAM
INCENTIVE PAYMENT CLAIM FORM

Solar Incentive Reservation Number: _____

You will have a Reservation Number only if you submitted a Reservation Request Form and received a Reservation Confirmation from LADWP. A Reservation Number is NOT required to submit this Incentive Payment Claim Form.

INCENTIVE PAYMENT

Who will receive the Incentive payment? (Circle one)

LADWP Customer

PV Retailer/Distributor/PV Manufacturer

PV Contractor/Installer

Taxpayer ID Number (for PV Retailer/Distributor/Manufacturer or PV Contractor/Installer) or Social Security Number (for LADWP residential customer) for the Incentive Payment Recipient: _____

EQUIPMENT SERIAL NUMBERS

List serial numbers of all PV modules, including Shell brand, installed for this LADWP Customer (ok to attach separate sheet to list serial numbers).

A complete list of serial numbers is required to process this Claim and issue the Incentive payment.

Four rows of horizontal lines for listing equipment serial numbers.

DECLARATION

To be completed by the LADWP Customer AND Solar PV Retailer/Distributor/Manufacturer or PV Contractor/Installer AFTER INSTALLATION OF THE PV SYSTEM

The undersigned declare under penalty of perjury that the following statements are true and correct: 1) A solar (photovoltaic) electrical generating system meeting the terms and conditions of the Department's Solar (Photovoltaic) Incentive Program has been installed and is operating satisfactorily as of the date stated below; 2) The rated electrical output of the photovoltaic electrical generating system and the physical location of the system are as stated on the Reservation Confirmation Form; and 3) Except as noted below, there were no changes in the information regarding the retailer/distributor/manufacturer, installer, purchaser, photovoltaic electrical generating system, installation location, or price from that information provided in the Reservation Request Form originally submitted by the undersigned.

(List below any changes, exceptions, or modifications to the information provided in your Reservation Request Form, if submitted. Attach a separate sheet if necessary):

Three horizontal lines for listing changes, exceptions, or modifications.

PV RETAILER/DISTRIBUTOR/MANUFACTURER OR CONTRACTOR/INSTALLER (Circle Which)

LADWP CUSTOMER

Signature

Signature

Print Name

Print Name

Date

Date

See (Form 4, Side 1) for list of documents that must be submitted with this form. Keep a copy of this form for your records.



Los Angeles Department of Water and Power
SOLAR INCENTIVE PROGRAM
AGREEMENT TO IMPLEMENT SUBSECTION S

RESIDENTIAL SERVICE RIDER-NET ENERGY METERING (Copy 1)

CUSTOMER INFORMATION

Mr. / Mrs. / Ms.

Customer resides at

Customer receives electric service under Schedule R-1 (A) or R-1 (B) and shall continue to do during the term of this Agreement.

CUSTOMER SHALL

- 1. Be responsible for the operation of a Generating Facility capable of generating electricity from solar, wind or a hybrid of both with a generating capacity of 10 kilowatts or less installed at its residence.
2. Said generating facility shall have a visible, lockable, disconnect switch, which shall be installed in close proximity to, or no more than eight (8') feet from, the Department's electric meter, and shall be easily accessible to Department personnel under all conditions and at all times.
3. Obtain and maintain any required governmental authorizations or permits to install and operate the Generating Facility.
4. Maintain homeowners insurance including liability coverage during the term of this contract.
5. Obtain final written approval for the Generating Facility by the Department of Building and Safety and the written approval of an authorized representative of the Department prior to parallel operation with the Department's electric system.

DEPARTMENT SHALL

- 1. Have access to read or test meter(s), or to disconnect the Generating Facility or electric service to Customer.
2. Measure energy using a single meter capable of running backwards.
3. Have the option to install an additional meter or meters, at its expense.
4. Shall have the option to disconnect the Generating Facility:
a) If Customer is not in good standing with or not in compliance with the Rules of the Department.
b) To work on the Department's electric system.
c) To protect the public or Department personnel.
d) To ensure the quality of service to other Department customers.

CUSTOMER BILLING

- 1. If the electricity supplied by the Department is more than or equal to the electricity generated by Customer over the billing period, Customer shall be billed for the net energy supplied under Schedule R-1 (a) or R-1 (B).
2. If the electricity supplied by the Department is less than the electricity generated by Customer over the billing period, Customer shall be billed a minimum charge and also receive a credit for the difference in accordance with as determined under Subsection S - Residential Service Rider-Net Energy Metering.

LIABILITY

Customer shall indemnify and hold harmless the Department and its commissioners, officers, employees, and agents from any and all liability, damages, costs, losses, claims, demands, actions and causes of action for damages to the person or property of any person or entity, attributable in whole or in part to the installation/operation/maintenance/modification and/or removal of the Generating Facility.

MODIFICATIONS

Any amendments, changes, alterations, or modifications to this Agreement shall be in writing and approved by both Parties.

UNDERSTANDING

This Agreement contains the entire understanding between the Parties and this Agreement supercedes all previous communications, representations, understandings, and agreements, either oral or written, between the Parties with respect to the subject matter hereof.

TERM

This Agreement shall remain in effect for a term of 36 months unless terminated by either Party on thirty- (30-) days' prior written notice. If Customer sells or transfers the property where the Generating Facility is located this Agreement terminates at the close of the transaction.

IN AGREEMENT WITH AND WITNESS WHEREOF, the Parties have executed this Agreement in duplicate. This Agreement is effective as of the latter of the two dates set forth below:

CUSTOMER

DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES

Signature

Signature

Print Name

Print Name

Title

Date

Title

Date

Resolution No.



Los Angeles Department of Water and Power
SOLAR INCENTIVE PROGRAM
AGREEMENT TO IMPLEMENT SUBSECTION S

RESIDENTIAL SERVICE RIDER-NET ENERGY METERING (Copy 2)

CUSTOMER INFORMATION

Mr. / Mrs. / Ms. Customer resides at
Customer receives electric service under Schedule R-1 (A) or R-1 (B) and shall continue to do during the term of this Agreement.

CUSTOMER SHALL

- 1. Be responsible for the operation of a Generating Facility capable of generating electricity from solar, wind or a hybrid of both with a generating capacity of 10 kilowatts or less installed at its residence.
2. Said generating facility shall have a visible, lockable, disconnect switch, which shall be installed in close proximity to, or no more than eight (8') feet from, the Department's electric meter, and shall be easily accessible to Department personnel under all conditions and at all times.
3. Obtain and maintain any required governmental authorizations or permits to install and operate the Generating Facility.
4. Maintain homeowners insurance including liability coverage during the term of this contract.
5. Obtain final written approval for the Generating Facility by the Department of Building and Safety and the written approval of an authorized representative of the Department prior to parallel operation with the Department's electric system.

DEPARTMENT SHALL

- 1. Have access to read or test meter(s), or to disconnect the Generating Facility or electric service to Customer.
2. Measure energy using a single meter capable of running backwards.
3. Have the option to install an additional meter or meters, at its expense.
4. Shall have the option to disconnect the Generating Facility:
a) If Customer is not in good standing with or not in compliance with the Rules of the Department.
b) To work on the Department's electric system.
c) To protect the public or Department personnel.
d) To ensure the quality of service to other Department customers.

CUSTOMER BILLING

- 1. If the electricity supplied by the Department is more than or equal to the electricity generated by Customer over the billing period, Customer shall be billed for the net energy supplied under Schedule R-1 (a) or R-1 (B).
2. If the electricity supplied by the Department is less than the electricity generated by Customer over the billing period, Customer shall be billed a minimum charge and also receive a credit for the difference in accordance with as determined under Subsection S - Residential Service Rider-Net Energy Metering.

LIABILITY

Customer shall indemnify and hold harmless the Department and its commissioners, officers, employees, and agents from any and all liability, damages, costs, losses, claims, demands, actions and causes of action for damages to the person or property of any person or entity, attributable in whole or in part to the installation/operation/maintenance/modification and/or removal of the Generating Facility.

MODIFICATIONS

Any amendments, changes, alterations, or modifications to this Agreement shall be in writing and approved by both Parties.

UNDERSTANDING

This Agreement contains the entire understanding between the Parties and this Agreement supercedes all previous communications, representations, understandings, and agreements, either oral or written, between the Parties with respect to the subject matter hereof.

TERM

This Agreement shall remain in effect for a term of 36 months unless terminated by either Party on thirty- (30-) days' prior written notice. If Customer sells or transfers the property where the Generating Facility is located this Agreement terminates at the close of the transaction.

IN AGREEMENT WITH AND WITNESS WHEREOF, the Parties have executed this Agreement in duplicate. This Agreement is effective as of the latter of the two dates set forth below:

CUSTOMER

DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES

Signature

Signature

Print Name

Print Name

Title

Date

Title

Date

Resolution No.



Los Angeles Department of Water and Power
SOLAR INCENTIVE PROGRAM
AGREEMENT TO IMPLEMENT SUBSECTION S

COMMERCIAL SERVICE RIDER-NET ENERGY MEETING (Copy 1)

To be completed by the LADWP Customer/Property Owner/PV System Buyer

CUSTOMER INFORMATION

Account Name

Service Address

Customer receives electric service under Schedule A-1 (A) or A-1 (B) and shall continue to do so during the term of this Agreement.

CUSTOMER SHALL

- 1. Be responsible for the operation of a Generating Facility capable of generating electricity from solar, wind, or microturbine or fuel cell with a generating capacity of 10 kilowatts or less installed at its place of business.
2. Said generating facility shall have a visible, lockable, disconnect switch, which shall be installed in close proximity to, or no more than eight (8') feet from, the Department's electric meter, and shall be easily accessible to Department personnel under all conditions and at all times.
3. Obtain and maintain any required governmental authorizations or permits to install and operate the Generating Facility.
4. Obtain final written approval for the Generating Facility by the Department of Building and Safety and the written approval of an authorized representative of the Department prior to parallel operation with the Department's electric system.

DEPARTMENT SHALL

- 1. Have access to read or test meter(s), or to disconnect the Generating Facility or electric service to Customer.
2. Measure energy using a single meter capable of running backwards.
3. Have the option to install an additional meter or meters, at its expense.
4. Have the option to disconnect the Generating Facility:
a) If Customer is not in compliance with the Rules of the Department and fails to cure said non-compliance within 10 days of the date of written notice this agreement shall terminate and the Generating Facility shall be disconnected.
b) To work on the Department's electric system.
c) To take all measures it deems reasonable or prudent to protect the public or Department personnel.
d) To ensure the quality of service to other Department customers.
5. Have no liability to customer or any third parties for disconnection of the Generating Facility pursuant to the provisions set forth herein.

CUSTOMER BILLING

- 1. Bills for electric service provided pursuant to this agreement shall be rendered in accordance with Rate Ordinance No.166159, as amended.
2. If the electricity supplied by the Department is more than or equal to the electricity generated by Customer over the billing period, Customer shall be billed for the net energy supplied under Schedule A-1 (A) or A-1 (B) of Rate Ordinance 166159 as amended.
3. If the electricity supplied by the Department is less than the electricity generated by Customer over the billing period, Customer shall be billed a minimum charge and also receive a credit for the difference in accordance with Subsection S - Net Metering Service Rider of Rate Ordinance 166159 as amended.
4. Bills shall be rendered at intervals of one month in accordance with Rule No. 9.A.1 of the Rules Governing Electric and Water Service.

INSURANCE

GENERAL REQUIREMENTS

- 1. Prior to the start of operation of the generating facility, but not later than 30 days after such date, the Customer shall furnish the Department evidence of coverage from insurers acceptable to the Department and in a form acceptable to the Risk Management Section and the Office of the City Attorney.
2. Such insurance shall not limit or qualify the liabilities and obligations of the Customer assumed under this Agreement.
3. Any insurance carried by the Department which may be applicable shall be deemed to be excess insurance and the Customer's insurance is primary for all purposes despite any conflicting provision in the Customer's policies to the contrary.
4. Said evidence of insurance shall contain a provision that the policy cannot be canceled or reduced in coverage or amount without first giving 30 calendar days' notice thereof (10 days for non-payment of premium) by registered mail to the City Attorney's Office, Los Angeles Department of Water and Power, Post Office Box 51111, John Ferraro Office Building, Room 340, Los Angeles, California 90051-0100.
5. Should any portion of the required insurance be on a "Claims Made" policy, the Customer shall, at the policy expiration date, provide evidence that the "Claims Made" policy has been renewed or replaced with the same limits, terms and conditions of the expiring policy, or that an extended discovery period has been purchased on the expiring policy at least for the term of this Agreement.
6. Failure to maintain and provide acceptable evidence of the required insurance for the required period of coverage shall constitute a breach of contract, upon which the Department may immediately terminate or suspend this Agreement.

SPECIFIC COVERAGES REQUIRED

COMMERCIAL GENERAL LIABILITY

1. The Customer shall provide Commercial General Liability insurance with Blanket Contractual Liability, Independent Contractors, Broad Form Property Damage, Premises and Operations, Products and Completed Operations, and Personal Injury coverages included. Such insurance shall provide coverage for total limits actually arranged by the Customer, but not less than \$500,000.00 combined single limit per occurrence. Should the policy have an aggregate limit, such aggregate limits should not be less than double the Combined Single Limit and be specific for this contract. Umbrella or Excess Liability coverages may be used to supplement primary coverages to meet the required limits. Evidence of such coverage shall be on the Department’s additional insured endorsement form or on an endorsement to the policy acceptable to the Risk Management Section and provide for the following:
 1. Include the Department and its officers, agents, and employees as additional insureds with the named Insured for the activities and operations under this Agreement.
 2. Severability-of-Interest or Cross-Liability Clause such as: “The policy to which this endorsement is attached shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the company’s liability.”
 3. A description of the coverages included under the policy.

EXCESS LIABILITY

The Customer may use an Umbrella or Excess Liability Coverage to meet coverage limits specified in this Agreement. Evidence of Excess Liability shall be in the form of the Department’s Excess Liability-Additional Insured Endorsement form or equivalent. The Customer shall require the carrier for Excess Liability to properly schedule and to identify the underlying policies as provided for on the Additional Insured Endorsement form, including, as appropriate, Commercial General Liability, Commercial Automobile Liability, Employer’s Liability, or other applicable insurance coverages.

INDEMNIFICATION

The Customer undertakes and agrees to indemnify and hold harmless the City of Los Angeles, the Department of Water and Power, the Board of Water and Power Commissioners of the City of Los Angeles, and all of their officers and employees, and, at the option of the Department, defend the Department, and any and all of their Boards, officers, agents, representatives, employees, assigns and successors in interest from and against any and all suits and causes of action, claims, charges, damages, demands, judgments, civil fines and penalties, or losses of any kind or nature whatsoever, for death, bodily injury or personal injury to any person, including Customer’s employees and agents, or damage or destruction to any property of either party hereto, or third persons in any manner arising by reason of the negligent acts, errors, omissions or willful misconduct incident to the performance of this Agreement on the part of the Customer, or the Customer’s officers, agents, employees, or subCustomers of any tier, except for the active negligence or willful misconduct of the Department, its Board, officers, agents, representatives or employees.

MODIFICATIONS

Any amendments, changes, alterations, or modifications to this Agreement shall be in writing and approved by both Parties.

UNDERSTANDING

This Agreement contains the entire understanding between the Parties; and this Agreement supercedes all previous communications, representations, understandings, and agreements, either oral or written, between the Parties with respect to the subject matter hereof. There are no other promises, terms, conditions, obligations, understandings, or agreements either written or oral between the Parties with respect to the subject matter hereof.

TERM

1. This Agreement shall remain in effect for a term of 36 months unless terminated by either Party on thirty (30) days’ prior written notice.
2. If Customer sells or transfers the property served by or where the Generating Facility is located, this Agreement terminates at the close of the transaction.
3. The Department’s Assistant General Manager, Power Services, shall terminate this Agreement by written notice to Customer if Customer does not comply with the covenants of this Agreement.
4. Upon the date of termination of this Agreement all rights to services provided hereunder shall cease and neither Party shall claim or assert any continuing right to such services hereunder. However, such termination shall not affect the rights and obligations to pay money for transactions occurring prior to termination.

IN AGREEMENT WITH AND WITNESS WHEREOF, the Parties have executed this Agreement in duplicate. This Agreement is effective as of the latter of the two dates set forth below:

CUSTOMER

DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES

Signature

Signature

Print Name

Print Name

Title

Date

Title

Date

Resolution No.

Date



Los Angeles Department of Water and Power SOLAR INCENTIVE PROGRAM AGREEMENT TO IMPLEMENT SUBSECTION S

COMMERCIAL SERVICE RIDER-NET ENERGY MEETING (Copy 2)

To be completed by the LADWP Customer/Property Owner/PV System Buyer

CUSTOMER INFORMATION

Account Name

Service Address

Customer receives electric service under Schedule A-1 (A) or A-1 (B) and shall continue to do so during the term of this Agreement.

CUSTOMER SHALL

1. Be responsible for the operation of a Generating Facility capable of generating electricity from solar, wind, or microturbine or fuel cell with a generating capacity of 10 kilowatts or less installed at its place of business.
2. Said generating facility shall have a visible, lockable, disconnect switch, which shall be installed in close proximity to, or no more than eight (8') feet from, the Department's electric meter, and shall be easily accessible to Department personnel under all conditions and at all times. Only when directed by an authorized representative of the Department shall the disconnect switch be located more than eight (8') feet from the Department's electric meter, in order that said disconnect switch shall be accessible under all conditions and at all times.
3. Obtain and maintain any required governmental authorizations or permits to install and operate the Generating Facility.
4. Obtain final written approval for the Generating Facility by the Department of Building and Safety and the written approval of an authorized representative of the Department prior to parallel operation with the Department's electric system.

DEPARTMENT SHALL

1. Have access to read or test meter(s), or to disconnect the Generating Facility or electric service to Customer.
2. Measure energy using a single meter capable of running backwards.
3. Have the option to install an additional meter or meters, at its expense.
4. Have the option to disconnect the Generating Facility:
 - a) If Customer is not in compliance with the Rules of the Department and fails to cure said non-compliance within 10 days of the date of written notice this agreement shall terminate and the Generating Facility shall be disconnected. Such disconnection does not relieve customer of any financial obligations to the Department.
 - b) To work on the Department's electric system.
 - c) To take all measures it deems reasonable or prudent to protect the public or Department personnel.
 - d) To ensure the quality of service to other Department customers.
5. Have no liability to customer or any third parties for disconnection of the Generating Facility pursuant to the provisions set forth herein.

CUSTOMER BILLING

1. Bills for electric service provided pursuant to this agreement shall be rendered in accordance with Rate Ordinance No.166159, as amended. While the relevant provisions are summarized below, the provisions of the Rate Ordinance govern.
2. If the electricity supplied by the Department is more than or equal to the electricity generated by Customer over the billing period, Customer shall be billed for the net energy supplied under Schedule A-1 (A) or A-1 (B) of Rate Ordinance 166159 as amended.
3. If the electricity supplied by the Department is less than the electricity generated by Customer over the billing period, Customer shall be billed a minimum charge and also receive a credit for the difference in accordance with Subsection S - Net Metering Service Rider of Rate Ordinance 166159 as amended.
4. Bills shall be rendered at intervals of one month in accordance with Rule No. 9.A.1 of the Rules Governing Electric and Water Service.

INSURANCE

GENERAL REQUIREMENTS

1. Prior to the start of operation of the generating facility, but not later than 30 days after such date, the Customer shall furnish the Department evidence of coverage from insurers acceptable to the Department and in a form acceptable to the Risk Management Section and the Office of the City Attorney. Such insurance shall be maintained by the Customer at the Customer's sole cost and expense.
2. Such insurance shall not limit or qualify the liabilities and obligations of the Customer assumed under this Agreement. The Department shall not by reason of its inclusion under these policies incur liability to the insurance carrier for payment of premium for these policies.
3. Any insurance carried by the Department which may be applicable shall be deemed to be excess insurance and the Customer's insurance is primary for all purposes despite any conflicting provision in the Customer's policies to the contrary.
4. Said evidence of insurance shall contain a provision that the policy cannot be canceled or reduced in coverage or amount without first giving 30 calendar days' notice thereof (10 days for non-payment of premium) by registered mail to the City Attorney's Office, Los Angeles Department of Water and Power, Post Office Box 51111, John Ferraro Office Building, Room 340, Los Angeles, California 90051-0100.
5. Should any portion of the required insurance be on a "Claims Made" policy, the Customer shall, at the policy expiration date, provide evidence that the "Claims Made" policy has been renewed or replaced with the same limits, terms and conditions of the expiring policy, or that an extended discovery period has been purchased on the expiring policy at least for the term of this Agreement.
6. Failure to maintain and provide acceptable evidence of the required insurance for the required period of coverage shall constitute a breach of contract, upon which the Department may immediately terminate or suspend this Agreement.



Los Angeles Department of Water and Power
SOLAR INCENTIVE PROGRAM
RESERVATION REQUEST FORM

Note: Form 2 is no longer in use

PV RETAILER / DISTRIBUTOR / MANUFACTURER (Circle Which) PV CONTRACTOR / INSTALLER (If Different from Left)
The Premium PV Co. Number 1 PV Installer
Company Name
Jack Premium Joe Installer
Contact Person
95-XXXXXXX 95-0000000
Retailer/Distributor/Manufacturer's Taxpayer ID Number Contractor/Installer's Taxpayer ID Number
1126 Main Street 2000 Industry Lane
Address
Rochester NY 10000 Granada Hills CA 91340
City State Zip City State Zip
(716) 555-1212 (716) 555-1313 (818) 333-1234 (818) 333-5678
Business Phone Fax Business Phone Fax

LADWP CUSTOMER

The XYZ Company Mr. John Doe
Company Name (for commercial systems) Contact Person
111 N. Business Lane
Address
Los Angeles CA 90000
City State Zip
(213) 925-0000 (213) 925-1111 95-2222222
Business Phone Fax Tax ID Number (for commercial systems) or Social Security Number (for residential systems)

SOLAR PV SYSTEM INFORMATION

Shell
PV Module Manufacturer
SP-75
Module Manufacturer Number
40
Number of Modules
67.5 Watts
PTC Power Rating/Module
2700 Watts
Total System Output (# of modules x PTC power rating per module)
Trace
Inverter Manufacturer
STXR 2500-430637
Inverter Model Number
94 %
Peak Inverter Efficiency

Table with 2 columns: Description and Amount. Rows include: Cost of system BEFORE LADWP Incentive (\$22,000), Subtract any non-LADWP Incentives* (-\$0), = Total Eligible PV System Cost (\$22,000), Incentive Request for non-locally manufactured PV equipment: \$4.50/Watt x total system output (see left).** (\$), Incentive Request for locally-manufactured PV equipment (any/all Shell [Siemens] UL-listed PV equipment & PowerLight's PowerGuard solar electric roof top systems: \$6.00/Watt x total system output (see left).** (\$16,200).

Note: LADWP Solar Incentive Program Reservations are made in the name of the LADWP Customer; this person or entity can change or cancel the LADWP Solar Incentive Reservation at any time.

KiloWatt Hours

The Department will determine the total number of kiloWatt hours used the previous 12 months at address where the PV system will be installed.

Declaration

The undersigned declare under penalty of perjury that: 1) the information provided in this form is true and correct to the best of my knowledge; 2) that the above-described solar PV generating system is intended to offset part or all of the Customer's electrical needs at the site of the installation; 3) that the site of the installation is located within the service territory of the Los Angeles Department of Water & Power; and 4) that the Customer has received a copy of this completed form.

PV RETAILER/DISTRIBUTOR/MANUFACTURER, CONTRACTOR/INSTALLER (Circle Which)

LADWP CUSTOMER

Signature Jack Premium

Signature John Doe

Print Name Jack Premium

Print Name John Doe

Date September 5, 2002

Date September 10, 2002

See (Form 1, Side 1) for list of documents that must be submitted with this form. Keep a copy of this form for your records.