



Los Angeles
Department of
Water & Power



Solar Rooftops Program Guidelines

Community Solar

Effective: [Date upon which use of revised SRPLA is
approved or deemed approved by City
Council]

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TABLE OF CONTENTS

1.0 Overview	2
1.1 Purpose and Guiding Principles	2
2.0 Eligibility Requirements	5
2.1 Applicant Eligibility Requirements	5
2.2 Enrollment Priority	5
2.3 Solar Rooftops Home Evaluation	6
3.0 Application Submission.....	6
3.1 Required Information and Documents.....	6
3.2 Application Submission Procedure	6
4.0 – Solar Rooftops Program Design	7
4.1 Customer Offer.....	7
4.2 Site and Scale	8
4.3 Economic Proposition	8
4.4 Payment Procedures.....	9
4.5 No Program Fees	9
4.6 Environmental Attributes	9
4.7 Home Evaluation Criteria	9
4.7.1 LADWP On-site Evaluation.....	10
4.7.2 Permitting and Installation.....	11
4.7.3 Site Inspection/Field Evaluation.....	11
4.8 Program Length	11
4.9 Operation and Maintenance.....	12
4.10 Safety	12

Appendices

Appendix A – Solar Rooftops Program Application

Appendix B – Solar Rooftops Program Lease Agreement (SRPLA)

1.0 Overview

These Guidelines provide the background information and procedures for participation in the Los Angeles Department of Water and Power's (LADWP) Community Solar Program (CSP), specifically the Solar Rooftops Program (SRP).

The SRP will allow the LADWP to install photovoltaic (PV) solar systems totaling up to one (1) megawatt nameplate capacity on the rooftops of customers in exchange for a fixed monthly lease payment between \$20 and \$50 per month, or between \$240 and \$600 per year, which pays for the use of such customers' property (PV Systems). An Energy Storage System (ESS) may be added to the PV System for customers who meet additional criteria in exchange for an additional fixed monthly lease payment between \$5 and \$20 per month, or between \$60 and \$240 per year, to further increase the reliability of the existing electrical distribution systems and enhance resource management. An ESS can include lithium-ion batteries and functionally similar technologies. Customer lease payments will vary with respect to the system size and configurations. The total potential savings over 20 years can range between \$4,800 and \$16,800. Only those owner-occupied homes that meet all the LADWP's and the Los Angeles Department of Building and Safety's (LADBS) expedited PV installation criteria will be accepted for this program.

Participation in the SRP requires a Solar Rooftops Program Lease Agreement to be entered into by and between the customer and the LADWP (SRPLA). Any provisions in these Guidelines in conflict with the SRPLA applicable to a particular customer are null and void as to that customer.

The SRP offers an opportunity for low-income, lifeline, time-of-use, and standard residential customers in the Los Angeles area to participate. The SRP will enable customers to help the LADWP meet its renewable energy goals, help reduce overall greenhouse gas emissions, and support local job creation. In addition, LADWP is evaluating the integration of multiple resources, including photovoltaic solar and energy storage. The SRP can be the catalyst for accelerating evaluations of photovoltaic solar systems with energy storage. Lastly, traditional solar participation barriers will be eliminated; there are no up-front costs/fees and no credit checks required to enroll.

No more SRP systems shall be installed upon the earlier date of installation of SRP systems totaling one megawatt nameplate capacity or exhaustion of the SRP budget.

1.1 Purpose and Guiding Principles

The LADWP is committed to solar power as a clean, efficient, and sustainable source of energy. Local solar is an important component of the LADWP's renewable energy programs and will help the LADWP meet its renewable energy targets, while reducing the carbon footprint of its power generation portfolio. Accelerating the deployment of

local solar and managing distributed energy resources, such as energy storage, are goals of the Sustainable City Plan and LADWP's Integrated Resource Plan, respectively, to ensure future electric grid reliability. In an effort to make solar projects available to more residential customers, especially those in neighborhoods with low solar penetration, the LADWP has created its Community Solar Program. **These Guidelines cover the Solar Rooftops Program.** The goals of the SRP are to build clean distributed generation across LADWP's service territory, help modernize and transform the provision of electric service within the City of Los Angeles, and allow the LADWP to evaluate the feasibility of implementing an even larger program.

The LADWP has the opportunity to couple an energy efficiency (EE) program with SRP participation. The LADWP Home Energy Improvement Program (HEIP) will be used as a partnering program to increase customer awareness. HEIP provides an energy audit of a customer's home and deploys skilled labor to apply energy efficiency improvements. Efforts between the two programs can be coordinated to improve the usage of resources (material, labor, etc.) and lower program costs.

In addition, training is an integral part of the SRP. The LADWP's current workforce is rapidly aging so the LADWP is striving to train the next generation of highly skilled employees for its workforce. International Brotherhood of Electrical Workers (IBEW) Local 18 and the LADWP have developed the Utility Pre-Craft Trainees (UPCT) Program to help meet this challenge with locally developed labor. The LADWP plans to utilize UPCTs during the construction of the rooftop PV and ESS.

COMMUNITY SOLAR PROGRAM (CSP) OVERVIEW

Category	Solar Rooftops Program (SRP)
Program Capacity	Up to 1 MW installed across an estimated 300-450 customer properties.
Program Structure	<ul style="list-style-type: none"> The LADWP will build PV solar systems, less than 10 kilowatts (kW) and greater than 1 kW each, on customers' rooftops. An Energy Storage System (ESS) may be added to the PV System to increase the LADWP's reliability and enhance resource management. The PV Systems will be connected directly to the LADWP Grid. The LADWP will pay customers for the use of their property and will obtain sole rights to the energy and environmental attributes produced.
Economic Compensation	<ul style="list-style-type: none"> The lease payment is between \$20 and \$70 per month depending on the system size and the addition of ESS equipment. Once the PV System is installed on a roof then a 12-month prepayment check will be issued to the homeowner. Some examples are given below. Ex 1. 3 kW PV (6/1/19-6/1/20) : $30 \frac{\\$}{\text{month}} * 12 \frac{\text{months}}{\text{year}} * 1 \text{ year} = \\$360.$ Ex 2. 6 kW PV + Energy Storage (6/15/19-6/15/20) : $45 \frac{\\$}{\text{month}} * 12 \frac{\text{months}}{\text{year}} * 1 \text{ year} = \\540 Subsequent payment may be made as prepayment on an annual basis or monthly/bi-monthly on-bill credits, at the discretion of LADWP. If a customer leaves the program before the lease's term, then that customer will be required to pay back the LADWP a prorated portion of the prepayment.
Program Benefits & Highlights	<ul style="list-style-type: none"> No up-front cost or annual fees. No credit checks. No operation and maintenance responsibilities for the customer. Guaranteed customer compensation regardless of energy production. PV System can be twice removed at no expense to the customer: <ul style="list-style-type: none"> -Once for rooftop repairs -Once at the end of the program term. An ESS can be removed and replaced with another ESS with the same nameplate capacity as many times as deemed necessary by the LADWP, at no expense to the customer. <p>Customers will be supporting renewable energy, helping to create local jobs, helping to reduce the carbon footprint of the LADWP's power generation portfolio and lessen the impact of global warming, and otherwise protecting the environment.</p>
Eligibility	<p>Open to customers located in the Los Angeles area with the following characteristics:</p> <ul style="list-style-type: none"> ✓ Has a rate schedule of R1A-Standard Residential, R1B-Time-of-Use, R1D-Low-Income, or R1E-Lifeline. ✓ Has not participated in LADWP's SIP ✓ Does not have an existing PV solar system. <p>The home must be:</p> <ul style="list-style-type: none"> ✓ Owner occupied. ✓ A residential property. ✓ Able to satisfy LADWP evaluation(s) and other criteria.

2.0 Eligibility Requirements

The SRP could generate approximately 300-450 enrollment slots for customers located in the Los Angeles area to participate, depending on the installed system size. Due to the limited amount of space, the LADWP has developed a set of filters to refine the eligibility pool.

2.1 Applicant Eligibility Requirements

Applicants must satisfy the following requirements in order to be considered for the program:

A. Only customers receiving electric service under rate schedule R1 - Residential Service are eligible for participation in the SSP. Future versions of the SRP may include other residential and commercial rate schedules.

- Schedule R-1 - Residential Service
 - R1-A – Standard
 - R1-B – Time-of-Use
 - R1-D – Low-Income
 - R1-E – Lifeline

B. Customers that are currently enrolled with the Solar Incentive Program (SIP) or have an existing PV solar system are not eligible for the SRP.

C. Applications must be fully completed in accordance with Section 3.0 and signed by the primary LADWP customer account holder and homeowner; if an Application contains two different persons for the customer account holder and homeowner name, then the Application may be delayed or disqualified.

D. Applicant's home must be located in the Los Angeles Basin of LADWP's service territory.

2.2 Enrollment Priority

A queue management database will be used to accept all applications. Submitting an Application does not guarantee admission into the program as there is limited space available.

At the end of each month all pending completed Applications eligible for consideration will be reviewed in the order received. Selection of Applications to receive the evaluation described in Section 4.7 will be made by the LADWP at its sole discretion consistent with the following objectives:

1. Be geographically diverse across the City of Los Angeles when installing distributed generation resources.

2. Aggregate projects in order to optimize the LADWP's resources (*i.e.*, labor and equipment).
3. Build SRP PV solar and ESS on the most suitable homes.

2.3 Solar Rooftops Home Evaluation

Once an Application is selected in accordance with Section 2.2, LADWP will evaluate the Applicant's home using the criteria detailed in Section 4.7. An Applicant shall not be accepted for participation into the SRP unless his or her home is able to pass the expedited LADBS permitting process for PV solar installations and meets the criteria regarding the home's solar potential detailed in Section 4.7.

3.0 Application Submission

All program materials, including the Solar Rooftops Program Lease Agreement (SRPLA), are available on the CSP website (www.ladwp.com/csp). If you have any questions, please contact the Community Solar Program staff at CSP@ladwp.com or 1-866-484-0433.

The LADWP reserves the right to reject all Applications. The terms of the SRPLA are non-negotiable. Applicants must review the terms of all program documents carefully before submitting an Application, and they are presumed to have made such a careful review. All submitted materials will become property of the LADWP and may be incorporated into a contract between the LADWP and the selected Applicant.

3.1 Required Information and Documents

In order for an Application to be considered completed, the following item must be submitted; otherwise, the Application will be considered nonresponsive and disqualified. Please see Section 3.2 of the Guidelines for the submission procedure.

- Completed Solar Rooftops Program Application (Appendix A)

3.2 Application Submission Procedure

Applicants shall submit their Application and attachments online at www.ladwp.com/csp. To complete an online Application, Applicants must have created an online LADWP account. If an Applicant has not registered for their online account, then they can do so by registering at www.ladwp.com. For any technical assistance, please contact the LADWP at 1-866-484-0433. If a customer is unable to submit a complete application online, then completed materials may be mailed to:

Community Solar Program
111 North Hope Street, Room 968
Los Angeles, CA 90012

4.0 – Solar Rooftops Program Design

The SRP design characteristics are listed below:

1. Customer Offer
2. Site and Scale
3. Economic Proposition
4. Payment Procedures
5. No Program Fees
6. Environmental Attributes
7. Home Evaluation Criteria
8. Program Length
9. Operation and Maintenance
10. Safety

An overview diagram of the SRP is shown in Figure 1.

4.1 Customer Offer

The LADWP will own and build PV Systems totaling up to one (1) megawatt nameplate capacity in the Los Angeles area on eligible customers' rooftop space as long as the rooftops meet criteria described in Section 4.7; energy storage systems may also be added to the PV System for customers who meet additional criteria described in Section 4.7.

The PV Systems will be connected directly to the LADWP's grid on the utility side of the electric meter; there will be no net energy meter, and no energy will be delivered to the Applicant's home directly from the PV System. The LADWP will be in charge of all PV solar and ESS installation tasks, which include site evaluations, permitting, construction, operation, and maintenance. Applicants simply have to submit a complete application, have their home pass an evaluation by the LADWP after selection, execute a SRPLA with the LADWP (Appendix B), and allow the LADWP to access their property for PV solar and ESS installation. Once the equipment has been installed and approved by LADBS, applicants begin receiving lease payments in accordance with the SRPLA. The amount of the monthly lease payments is determined in accordance with Table 1 below. A more detailed overview of the SRP is shown below in Figure 2.

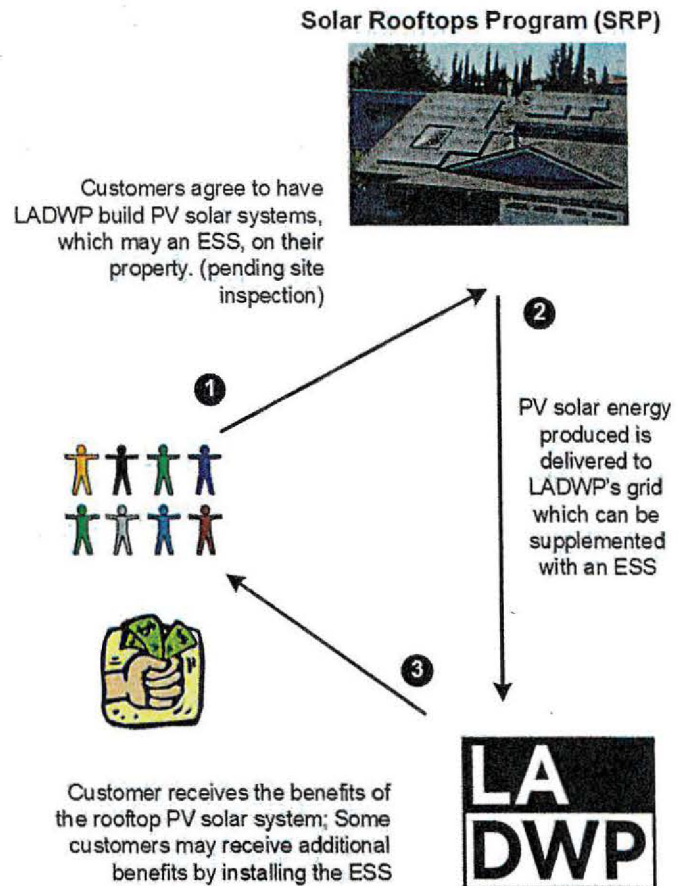


Figure 1 – SRP Overview

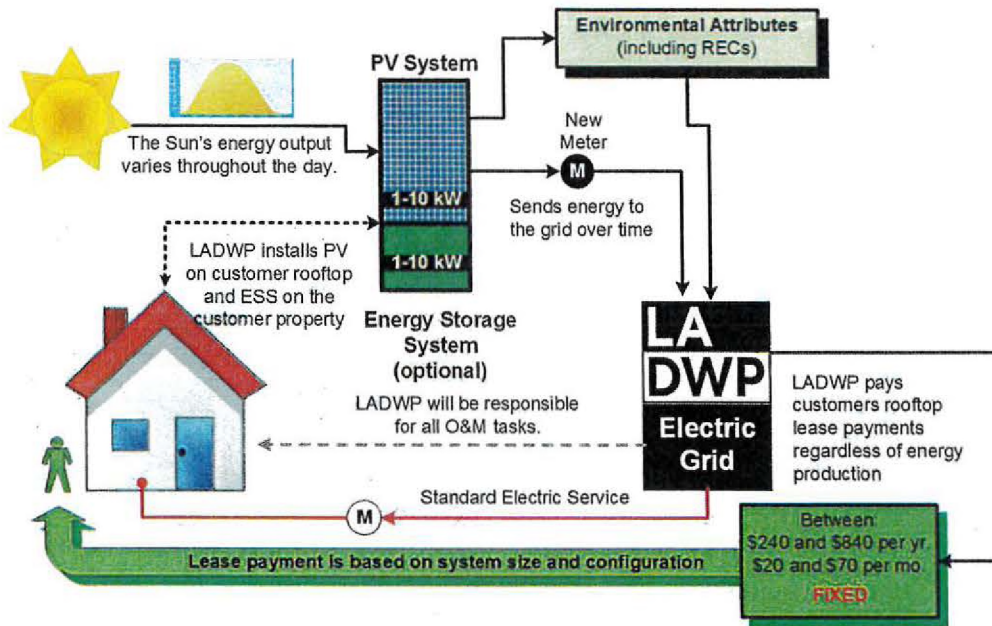


Figure 2 – Solar Rooftops Program Overview Diagram

4.2 Site and Scale

The LADWP will install a PV solar system (1-10 kW) on a customer's rooftop. If an ESS is integrated with the PV solar system in order to optimize the delivery of electrical power to increase the reliability of LADWP distribution circuits and enhance resource management, the ESS size (in kW) shall be less than or equal to the PV solar system size. The system sizes will be determined following an in-depth evaluation of the Applicant's rooftop and electrical systems by LADWP personnel.

4.3 Economic Proposition

The customer compensation will be between \$240 and \$840 per year as determined by the eligible system capacity measured in kW. Each customer will receive lease payments for the use of their rooftop in accordance with Table 1 below; provided, however, no ESS shall be added to PV solar systems until LADWP staff have briefed the Board of Water and Power Commissioners generally one time regarding the scope, cost and eligibility of the SRP, which could result in changes to the lease payments for ESS.

Table 1 – Lease Payment By System Size

System Size (kW)	≥ 1kW and < 2kW	≥ 2kW and ≤ 5kW	>5kW and ≤ 8kW	>8kW and ≤ 10kW
Lease Payment PV Solar (\$ per month)	\$20	\$30	\$40	\$50
Additional Lease Payment ESS (\$ per month)	\$5	\$10	\$15	\$20
Maximum Lease Payment PV Solar (\$ over 20 years)	\$4,800	\$7,200	\$9,600	\$12,000
Maximum Lease Payment PV Solar + ESS (\$ over 20 years)	\$6,000	\$9,600	\$13,200	\$16,800

4.4 Payment Procedures

When the LADWP completes the PV solar installation at a participant's home, and it is approved by LADBS, in accordance with the SRPLA, the participant will receive a prepayment of up to \$600 prorated for the first 12 months. Participants who have additional ESS equipment installed may receive additional prepayment of up to \$240 prorated for the first 12 months. Participants will then receive a prepayment in each subsequent year, based on the month when their PV solar or PV solar plus ESS was installed, or monetary compensation in the form of prorated monthly on-bill credits, at the discretion of LADWP. If the participant leaves the program before the applicable lease's term, then that participant will be required to pay back the LADWP a prorated portion of that year's prepayment, if applicable.

4.5 No Program Fees

The SRP will have no sign-up or cancellation fees.

4.6 Environmental Attributes

LADWP will retain and own all associated environmental attributes as defined in the SRPLA.

4.7 Home Evaluation Criteria

An overview of the SRP evaluation process is shown in Figure 3.

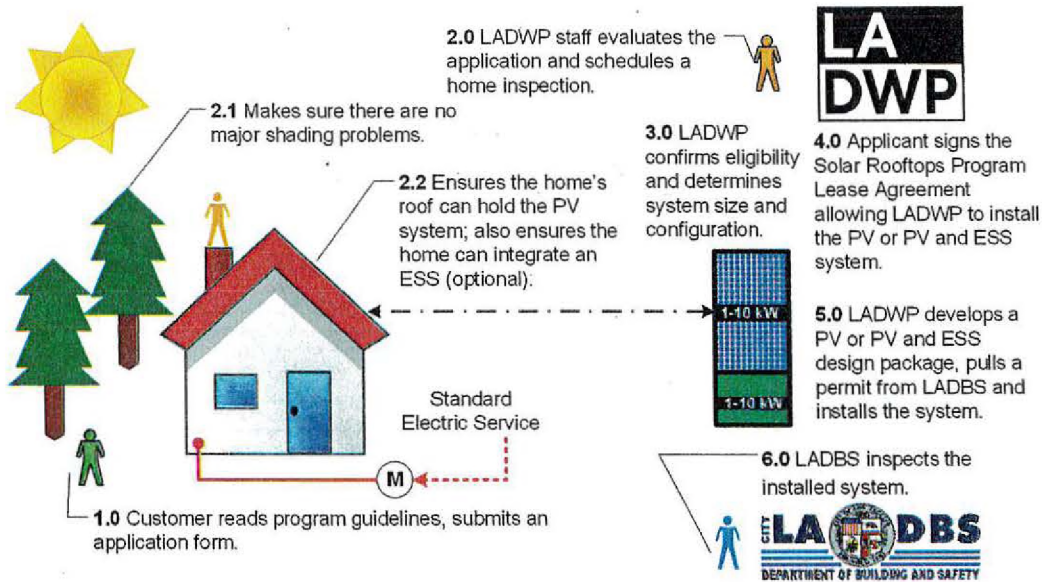


Figure 3 – Applicant Home Evaluation Process

4.7.1 LADWP On-site Evaluation

The SRP will only include those homes that meet the applicable LADBS expedited PV permitting criteria. In addition, LADWP will incorporate additional home evaluation criteria to determine the home's solar potential. An on-site evaluation of the home will be performed by LADWP staff to determine the home's eligibility. Some of the questions that will be answered during the home evaluation for PV solar systems are:

- Is the home one-story or two-story?
- What is the direction of the rooftop plane (*i.e.*, south or southwest preferably)?
- Does the roof have only one layer of roofing material?
- What type of roofing material is used?
- Does the roof structure appear to be structurally sound, without signs of alterations, deterioration, or sagging?
- What is the pitch of the rooftop?
- What is the rafter size and spacing?
- Is there any significant shading of the rooftop by nearby structures (*e.g.*, trees or buildings)?
- Is there enough clearance to install an additional meter and equipment near the existing electrical panel?
- Is there an existing overhead electrical connection?
- Is there an easily accessible ground rod?

Some of the questions that will be answered during the home evaluation for PV solar plus ESS are:

- Is there enough clearance to install an ESS on the property?
- What is the rating of the existing electrical panel?

4.7.2 Permitting and Installation

If a home passes its on-site evaluation and the customer signs the SRPLA, the LADWP will submit a permit application(s) to the LADBS for the installation of a PV solar or PV solar plus ESS at the Applicant's home. Once the permit application(s) is approved, the LADWP will build the PV solar or PV solar plus ESS installation. The Applicant must ensure that all LADWP personnel have a safe environment to perform the installation; this includes, but is not limited to, the temporary removal of pets, obstructions, and hazardous materials. Failure to do so may result in delay or disqualification of the Application.

4.7.3 Site Inspection/Field Evaluation

After a PV solar or PV solar plus ESS is installed, an inspector from LADBS inspects the installation. This field evaluation is the final step to allow a rooftop installation into the SRP. The field evaluation ensures that the PV solar or PV solar plus ESS has been installed properly and according to the approved plans. Evaluations focus on verifying that an installation is compliant with applicable building code, electrical code, fire safety requirements, and other applicable criteria. Once the system is energized, the SRPLA becomes effective.

4.8 Program Length

The SRPLA term will be for 20 years from the date the PV solar or PV solar plus ESS is installed and approved by LADBS, absent early termination. If the ownership of the home changes, through a sale or otherwise, the subsequent homeowner(s) takes the current homeowner's place in this agreement. Homeowner shall notify Community Solar staff, at csp@ladwp.com, no less than thirty (30) calendar days prior to transferring ownership of the home to the new homeowner. If the subsequent homeowner(s) does not want to participate in the program, they may submit a notice of termination. The LADWP and/or the homeowner(s) can terminate the agreement with a 60-day written notice after the first year of the lease.

Within 60 days following early termination or expiration of the SRPLA, the LADWP shall remove the PV solar or PV solar plus ESS at the LADWP's cost. If the LADWP fails to remove any portion or all of the PV solar or PV solar plus ESS within the required time period, such portion of the PV solar or PV solar plus ESS shall be considered abandoned by the LADWP, and customer has sole discretion regarding what to do with the equipment.

4.9 Operation and Maintenance

The LADWP has the sole responsibility for the operation of the installed PV solar or PV solar plus ESS. Problems associated with the operation of the installed systems should be brought to the attention of the Solar Hotline, 1-866-484-0433. All repairs required on the SRP PV solar or PV solar plus ESS will be performed by the LADWP or personnel authorized by the LADWP.

4.10 Safety

Each PV solar or PV solar plus ESS has been designed to provide a safe and reliable source of energy for many years. However, as with any source of electricity, certain precautions must be exercised to prevent accidental injury:

1. Homeowners must not attempt to make any repairs on the PV solar or PV solar plus ESS equipment.
 - Call the LADWP at 1-866-484-0433 to report any problems with the system.
2. Homeowners must not open any of the system cabinets or touch any exposed wiring.
 - Hazardous voltages can be present throughout the entire system at any time.
3. Homeowners must not attempt to remove or disconnect any of the photovoltaic rooftop modules or the ESS equipment.

Appendix A – Solar Rooftops Program Application

Solar Rooftops Program Application

APPLICANT INFORMATION		APP# <small>(office use only)</small>								
SECTION 1: LADWP ACCOUNT AND PROPERTY INFORMATION										
LADWP Account Holder Name		LADWP Account Number <table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> <td style="width: 12.5%;"></td> </tr> </table>								
LADWP Service Address	City	Zip								
Daytime Telephone Number () —										
Email Address										
Eligible homes must be owner - occupied. <input type="checkbox"/> Yes, I own and live in this home.										
Eligible homes must be single family residences. <input type="checkbox"/> Yes, my home is a single family residence.										
How many stories is your residence? <input type="checkbox"/> One story <input type="checkbox"/> Two stories <input type="checkbox"/> Three or more stories										
How did you hear about the program? <input type="checkbox"/> Postcard <input type="checkbox"/> Email <input type="checkbox"/> Social Media <input type="checkbox"/> Community Group(s) <input type="checkbox"/> Radio <input type="checkbox"/> Outreach Event <input type="checkbox"/> Other: ..										
SECTION 2: SOLAR ROOFTOPS PROGRAM										
Who is the best person to contact for your home evaluation?										
Contact's Daytime Telephone Number () —										
Best Time to Call: <input type="checkbox"/> 8-10am <input type="checkbox"/> 10am-12pm <input type="checkbox"/> 12pm-3pm <input type="checkbox"/> 3-5pm										
SECTION 3: CUSTOMER AGREEMENT										
By submitting this Solar Rooftops Program Application, I certify that the information I have provided is true and correct. I have read and met all program requirements per the SRP Guidelines. I authorize LADWP to perform a jointly scheduled site inspection of my home in order to finalize my eligibility status. I will provide a safe working environment for LADWP to perform a site evaluation(s), and I understand that an Application submission does not guarantee program participation.										
Print LADWP Account Holder (Applicant) Name	Signature (Applicant)	Date								

Mail your application to:

LADWP Community Solar Program
 111 N. Hope St., Room 968, Los Angeles, CA. 90012

For more information, email us at: CSP@ladwp.com, or call (866) 484-0433.

Appendix B – Solar Rooftops Program Lease Agreement (SRPLA)