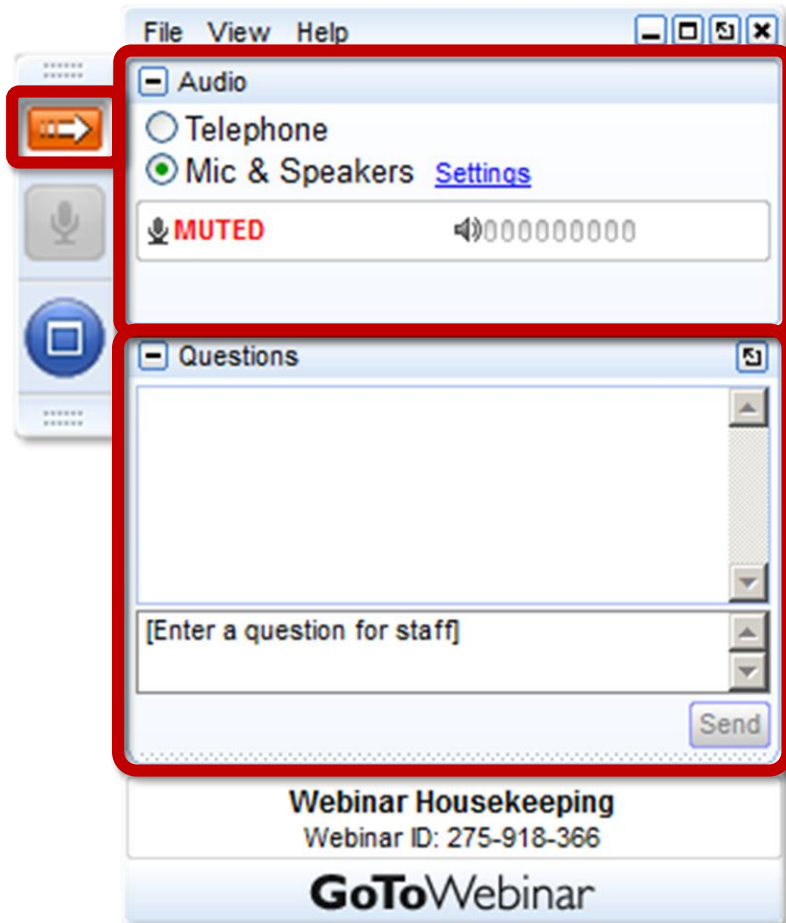


# Utility-Driven Solar Projects for Low-Income Customers

June 8, 2017



# Housekeeping



Use the red arrow to open and close your control panel

Join audio:

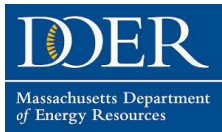
- Choose Mic & Speakers to use VoIP
- Choose Telephone and dial using the information provided

Submit questions and comments via the Questions panel

This webinar is being recorded. We will email you a webinar recording within 48 hours. CESA's webinars are archived at [www.cesa.org/webinars](http://www.cesa.org/webinars)



# Clean Energy States Alliance



# Sustainable Solar Education Project

- Provides information to state and municipal officials on strategies to ensure distributed solar electricity
  - 1) Remains consumer friendly
  - 2) Benefits low- and moderate-income households
- The project is managed by the CESA and is funded through the U.S. Department of Energy SunShot Initiative's Solar Training and Education for Professionals program.

# Sustainable Solar Education Project Resources

The Sustainable Solar Education Project is developing a variety of educational resources solar equitability and consumer protection:

- **Guides**
- **Webinars**
- **Online course material**
- **In-person training**

The project publishes a free **monthly e-newsletter** highlighting solar equitability and consumer protection news and from across the country.

[www.cesa.org/projects/sustainable-solar](http://www.cesa.org/projects/sustainable-solar)



**Clean Energy States Alliance**  
SUSTAINABLE SOLAR EDUCATION PROJECT  
**NEWSLETTER**

**MAY 2017**

The Sustainable Solar Education Project provides information and educational resources to state and municipal officials on strategies to ensure distributed solar electricity remains consumer friendly and benefits low- and moderate-income households. The project is managed by the Clean Energy States Alliance (CESA) and is funded through the U.S. Department of Energy SunShot Initiative's Solar Training and Education for Professionals program.

The Sustainable Solar Education Project Newsletter reports on issues related to solar equitability and consumer protection.

For more information about the Sustainable Solar Education Project, please visit our [website](http://www.cesa.org/projects/sustainable-solar).

[cesa.org/projects/sustainable-solar](http://www.cesa.org/projects/sustainable-solar)



**Clean Energy States Alliance**

**Sustainable Solar Education Project Webinars**

**Bringing the Benefits of Solar to Low-Income Customers**  
*Thursday, May 18th, 1-2 pm ET*  
CESA will conduct a webinar on low-income solar program and policy design. The webinar will be based on a recently released CESA guide authored by Bentham Paulos titled [Bringing the Benefits of Solar to Low-Income Consumers](#). The guide identifies successful and promising approaches, offers factors policymakers should consider, and provides policy and program design recommendations for bringing the benefits of solar to low-income consumers. [Register here](#).

**Crowd Financing Solar for Nonprofits Serving Low-Income Communities**  
*Thursday, May 25, 1-2 pm ET*  
Nonprofit community service providers that serve low-income communities have faced challenges in financing solar for their own facilities. One answer that has emerged is crowdfunding, in which many individuals each provide a small amount of money for a project. Crowdfunding can involve donations, or it can involve investments, in which the individuals who participate expect a financial return. In this webinar, Andreas Karelis, Executive Director of RE-volv, and Todd Bluechel, Vice President of Marketing and Sales at CollectiveSun, will present two models that rely on crowdfunding to enable nonprofits to adopt solar. [Register here](#).

**Community Solar for Low- and Moderate-Income Consumers**  
*Thursday, June 1, 1-2 pm ET*  
Because community solar can be made accessible to renters and can include flexible terms, it holds promise for spreading the benefits of solar to low- and moderate-income (LMI) consumers. In this webinar, Kelly Roache, Senior Program Manager at Solstice, and David Miller, Senior Vice President at Alpine Bank,

# Sustainable Solar Education Project Guides

- [Solar Information for Consumers](#)
- [Publicly Supported Solar Loan Programs](#)
- [Standards and Regulations for Solar Equipment, Installation, and Licensing & Certification](#)
- [Solar+Storage for Low- and Moderate-Income Communities](#)
- [Bringing the Benefits of Solar Energy to Low-Income Consumers](#)

## New:

- [Consumer Protections for Community Solar](#)



# Panelists

- **David Castro**, Community Solar Program, Los Angeles Department of Water and Power
- **Paul Tyno**, Strategic Advisor for Energy Initiatives, Buffalo Niagara Medical Campus
- **Amy Barry**, Lead Project Manager, National Grid



# Solar Rooftops Program

Clean Energy Group Webinar  
June 8, 2017

Putting Customers First   



# LADWP's Solar Programs

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## Solar Incentive Program

202 MW installed and \$304 million incentives paid to date



# LADWP's Solar Programs

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## Feed-in-Tariff Program (FiT100 and FiT50)

36.2 MW in-service, 31 MW under development or construction



# LADWP's Solar Programs

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## Utility-Built Solar Program

25.2 MW of LADWP-built solar currently operating



# LADWP's Solar Programs

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## Large Scale Power Purchase Agreements (PPA)

942 MW in-service, 178 MW under construction



# LADWP's Solar Programs

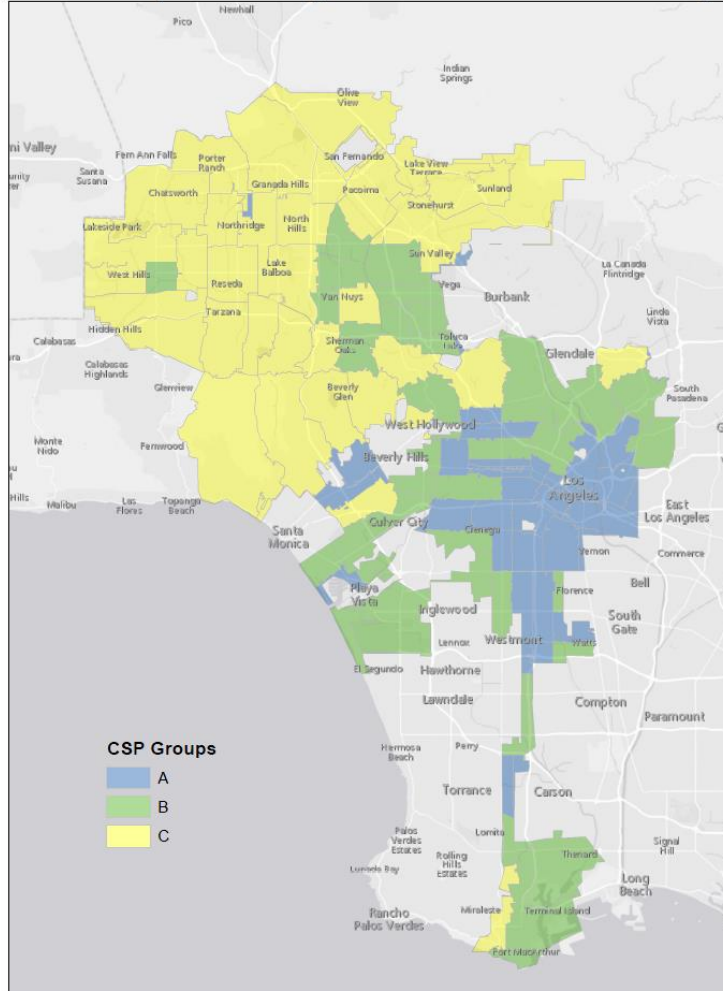
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- LADWP is ranked the No. 4 US Utility for solar MW installed for CY 2017 by Smart Electric Power Alliance (SEPA)
- LA is ranked the No. 1 US City for total solar MW for Calendar Year (CY) 2015 by Environment California

# Community Solar: Addressing Solar Access Disparity in LA

Community Solar Program Solar Penetration Groups



Date: 6/6/2017

$$\begin{aligned} & \text{Solar Penetration equals...} \\ & \text{Total Installed Solar Incentive Program} \\ & \text{Capacity - Residential Sector Only} \\ & \quad \text{(kW)} \\ & \quad \div \\ & \text{Total Number of Residential Accounts} \\ & \quad \text{(\#)} \end{aligned}$$

# Goals of Community Solar

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- Help meet Renewable Portfolio Standard targets
- Help expand solar equity by creating more options
- Create local jobs and job training for communities
- Strengthen community relationships
- Support the Sustainable City pLAN
- Better understand customer barriers

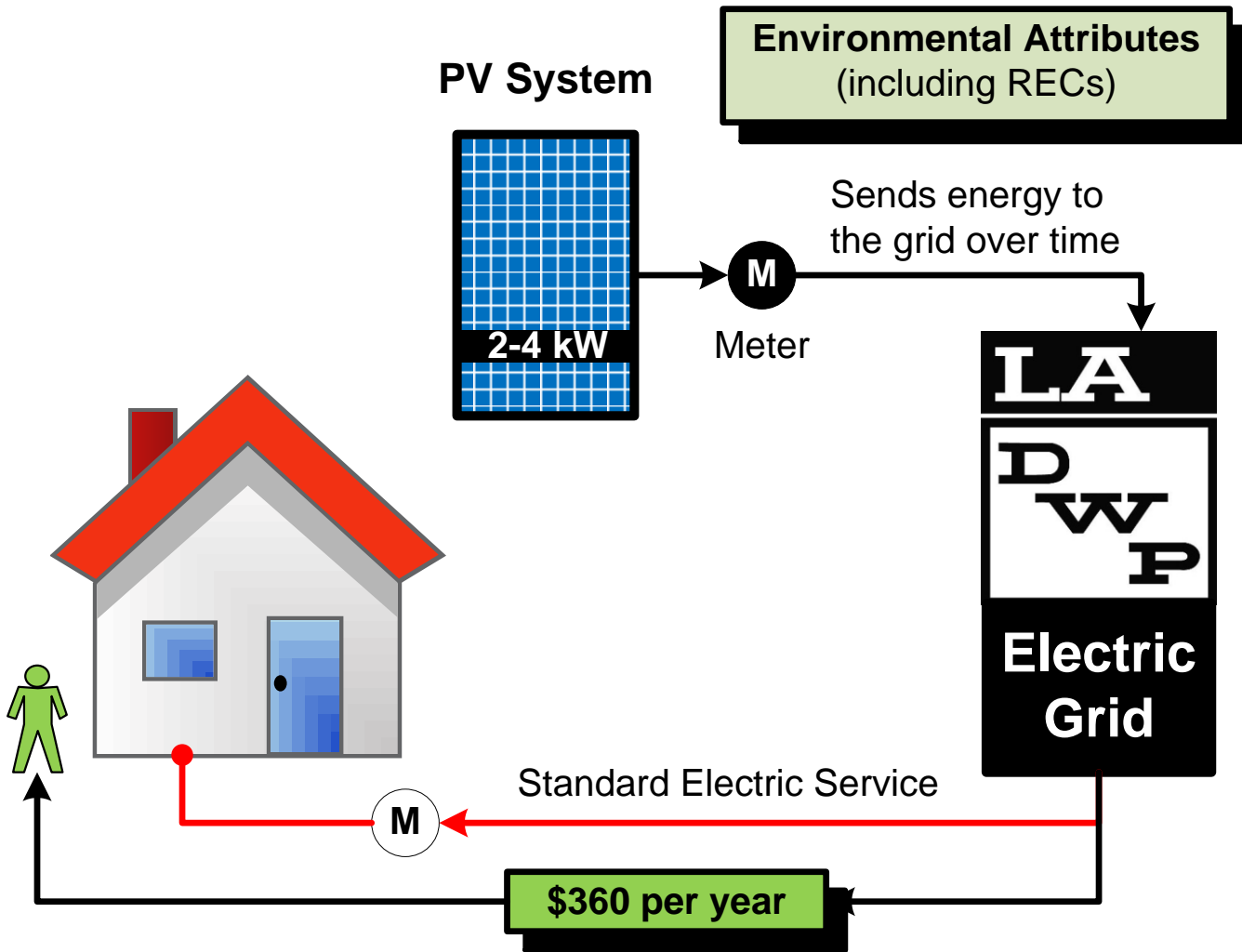
# Solar Rooftops Program Overview

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- LADWP will install a 2-4 kW solar system on customer rooftops
- Customer gets a fixed monthly lease payment of \$30 or \$360 per year regardless of system size
- No upfront costs, no credit checks
- Limited participation
- Only qualifying homes will be selected



# Solar Rooftops Program



# Solar Rooftops Program



# Solar Rooftops Program

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# Home Eligibility

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- Owner-occupied
- Single story, single family home with composite shingles
- Able to satisfy LADWP evaluation criteria
  - Electrical
  - Structural



# Zip Code Groupings

TABLE 1- SOLAR ROOFTOPS PROGRAM GROUPS BY ZIP CODE																
LOW SOLAR PARTICIPATION							MEDIUM SOLAR PARTICIPATION					HIGH SOLAR PARTICIPATION				
GROUP A							GROUP B					GROUP C				
90023	90011	90020	90036	90063	90501	91330	90001	90035	90056	90291	91405	90041	90402	91306	91335	91364
90002	90012	90021	90037	90067	90502	91346	90004	90039	90059	90293	91411	90049	90403	91307	91340	91367
90003	90013	90024	90038	90212	91041	91355	90008	90042	90065	90710	91423	90064	90732	91311	91342	91401
90005	90014	90025	90044	90232	91105	91504	90019	90043	90066	90717	91601	90068	91040	91316	91343	91403
90006	90015	90028	90057	90245	91205	91505	90026	90045	90094	90731	91602	90069	91042	91324	91344	91406
90007	90016	90029	90058	90275	91210		90027	90046	90230	90744	91605	90077	91214	91325	91345	91436
90009	90017	90031	90061	90292	91305		90032	90047	90247	91303	91606	90210	91302	91326	91352	91604
90010	90018	90033	90062	90405	91309		90034	90048	90248	91402	91607	90272	91304	91331	91356	

Data is derived from the following datasets: 1) Total LADWP Installed SIP Capacity – Residential Sector Only (as of 11/2016) and 2) Total LADWP Residential Accounts (as of 11/2016).

- All Groups can apply to get application(s) into queue
- Group A customers will be processed and inspected first, followed by Group B, and then by Group C

# The SRP Process

## Eligibility Check

[www.ladwp.com/csp](http://www.ladwp.com/csp)

Customer reads program guidelines, submits an application form and schedules a home inspection with LADWP.



LADWP staff evaluates the applicant's home.



Makes sure there are no major shading problems.



Ensures the home's roof can hold the solar panel system.



## Construction

Applicant signs the Solar Rooftops Lease Agreement and authorization form allowing LADWP to install the solar panel system.



LADWP collects all inspection information, develops a solar panel system design package and pulls a permit from LADBS.



LADBS inspects the installed system.

The solar panel system is connected to the grid and begins generating solar power.



# Lessons Learned Thus Far...

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- Inspection pass rates have been low for Group A
- Improving digital inspections creates efficiency
- Digital outreach has been inefficient in Group A
- Customer education is a necessity

# Questions?

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# Contact Information

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- Email: [david.castro@ladwp.com](mailto:david.castro@ladwp.com)
- Phone: **213-367-2300**
  
- CSP Email: [csp@ladwp.com](mailto:csp@ladwp.com)
- CSP Hotline: **213-367-4869**

# The Buffalo Niagara Medical Campus

## A Powerful Engine in Buffalo's Resurgence



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**BNMC**  
BUFFALO NIAGARA MEDICAL CAMPUS



**LEED Certified Innovation Ctr., funded in part from an Economic Development Grant from National Grid**

**24 Electric Vehicle Charging Stations on BNMC**

**NYS Energy Leadership Team Roundtable**

**Grid Modernization and Power Quality; EPRI and National Grid**

**Thermal Load Optimization Study; Gas Technology Institute and National Fuel Gas**

**NY Prize Micro-Grid Feasibility; Stage 1 and 2.**

**Neighborhood Solar REV Demonstration Project**

**DOE Micro-Grid Controller (simulation)**

**DSP REV Demonstration Project (creation of a distribution level transactional market)**

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# Fruit Belt Neighborhood Solar Partnership



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## Join Us.

Learn how to lower your electric bill with free rooftop solar and energy efficiency programs.



**Fruit Belt Neighborhood Solar Partnership**

POWER FROM THE SUN. SAVINGS FOR THE NEIGHBORHOOD.



**Neighborhood Meeting**  
**Thursday, May 19<sup>th</sup> | 5:30pm**

The Moot Community Center - 292 High Street, Buffalo



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# Demonstration Objectives

The Demonstration will test the following hypotheses:

- Providing solar bill credits to participants in an LMI neighborhood, as well as offering energy efficiency to further drive energy bill savings, will have a positive impact on bill payment behavior and enable customers to better manage their arrears. \*
  
- Concentrating distributed solar PV resources with reactive power support within a boundary served by a common substation versus scattered deployment of conventional solar will deliver measurable grid efficiency benefits. \*

[\\* Implementation Plan for Fruit Belt Neighborhood Solar REV Demonstration Project](#)

# Why BNMC?



- Fits social mission
- Lifts entire community
- Adjacent to campus
- Existing relationships
- Fits our energy focus

# Where we are to date





# Lessons Learned



- Need for trust
- Remain patient
- Find champions
- Personal contact key
- Remain flexible

**Questions?**

# Thank You

Paul Tyno

**Buffalo Niagara Medical Campus, Inc.**

Thomas R. Beecher Innovation Center

640 Ellicott St., Buffalo, NY 14203

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# Contact Information

## SUSTAINABLE SOLAR EDUCATION PROJECT

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Project Director, CESA  
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Visit our website to learn more about the Sustainable Solar Education Project  
and to sign up for our e-newsletter:

[www.cesa.org/projects/sustainable-solar](http://www.cesa.org/projects/sustainable-solar)

Find us online: [www.cesa.org](http://www.cesa.org)

[facebook.com/cleanenergystates](https://facebook.com/cleanenergystates)

@CESA\_news on Twitter



# Upcoming Webinars

- **Solar Risk: How Energy Storage Can Preserve Solar Savings in California Affordable Housing**  
Thursday, June 15, 2-3pm ET
- **Consumer Protections for Community Solar**  
Thursday, June 22, 1-2pm ET

[www.cesa.org/webinars](http://www.cesa.org/webinars)

